

# ALCOHOL AS A FACTOR IN FATAL COLLISIONS

RSA International Conference

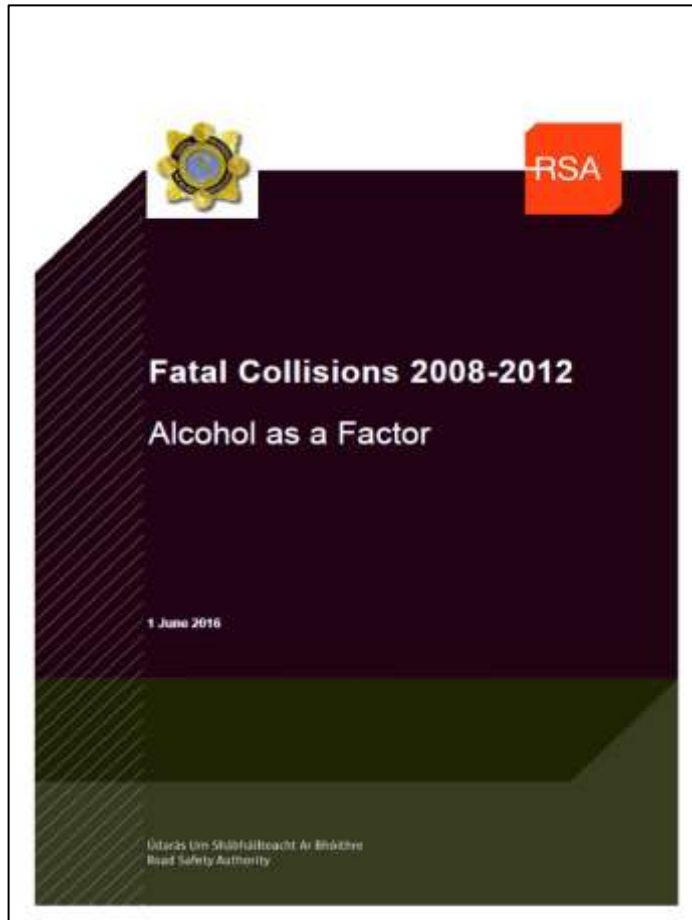
*Alcohol: Tackling the crisis on our roads*

Velma Burns, Research Manager  
Road Safety Authority

1<sup>st</sup> June 2017



# Presentation Outline



- Prevalence
- Demographics
- Levels
- Circumstances of collisions

## National Drug-Related Deaths Index

**HR<sup>B</sup>** Health  
Research  
Board

- RSA Interventions to address alcohol in collisions

# Alcohol as a Factor in Fatal Collisions

2008-2012

The **Pre-Crash Study is based** on an analysis of the completed Garda investigation file where the full circumstances of the collisions are available. Access was granted by An Garda Síochána to the completed Investigation File produced for each collision. The file can contain the following:

- Garda investigation report
  - Forensic collision investigation report
  - PSV report
  - Postmortem autopsy report
  - Toxicology reports
  - Deposition statements
  - Death certificate
  - Coroner's verdict
- Over the time period 2008 to 2012, **983 fatal collisions** occurred on Irish roads claiming the lives of **1,077 people**.
  - The study examined **867 of the fatal collisions** which occurred during this time period (88%).
  - Data Collection in GNTB 2014/2015: Maggie Martin & Dr. Margaret Ryan



## DEFINITION

**At least one party** in fatal collision (driver, motorcyclist, pedestrian or cyclist) had **confirmed record of alcohol consumption** and/or the attending **Garda's opinion**.

## THRESHOLD

>20mg/100ml blood or equivalent in urine

Positive breath test, prevailing limit

## PREVALENCE

**38%** of all fatal collisions (330 of 867 fatal collisions)

**39%** of all fatalities (366 of 947 fatalities)

## ROAD USER TYPE

**29%** of all 867 collisions involved a **driver or motorcyclist** with a record of alcohol consumption.

**9%** involved a **pedestrian** who had consumed alcohol.



## Collisions in which alcohol was a contributory factor – Overview

### WHO

Drivers & Motorcyclists:  
**majority male (89%);**  
**74% aged 16-34**

Pedestrians: 33% aged  
17-34; 41% aged 50+

### WHERE

**Cork, Galway,**  
**Dublin** and **Donegal**  
accounted for over  
a third (36%)

81% in rural  
environment  
(80km/h+)

### WHEN

Over half (58%) between  
**8pm and 4am** (peak 2-3am  
for drivers/motorcyclists  
12%)

Almost 2/3 occurred **Friday**  
- **Sunday**; One third Sunday

### KILLED/INJURED

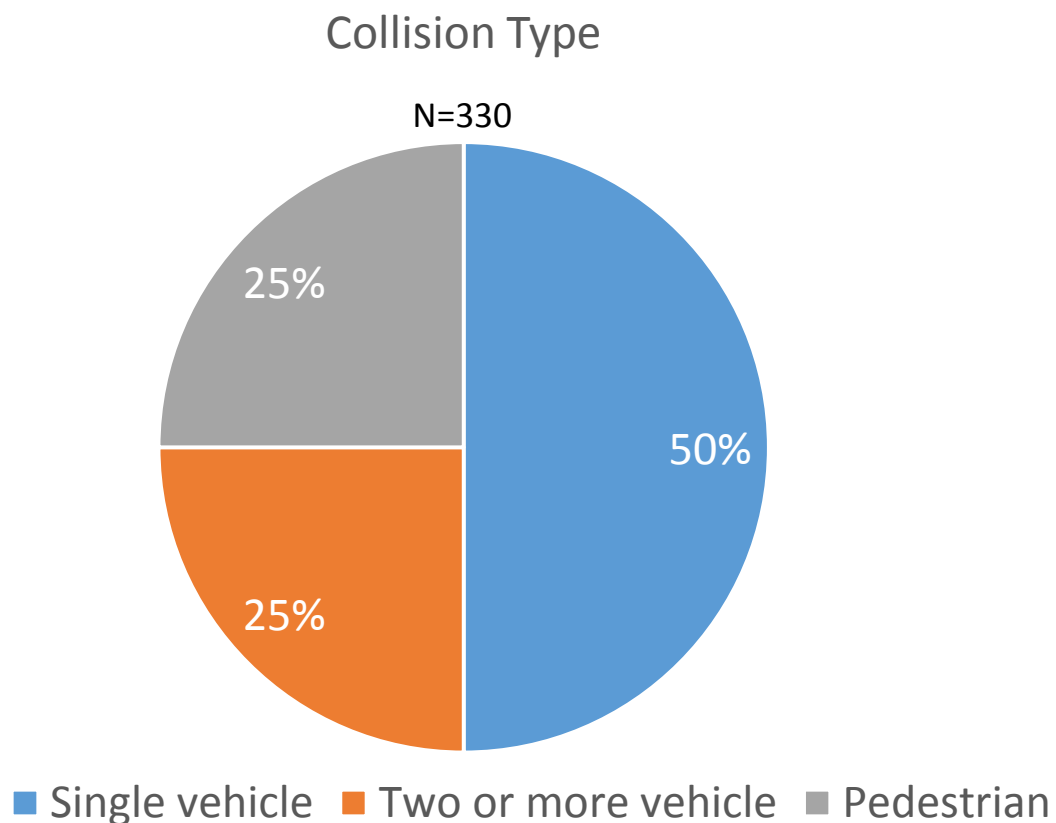
366 killed in total

286 people killed  
and 69 seriously  
injured by  
250  
drivers/motorcyclists

Note 83 passengers  
killed



## Circumstances of collisions in which alcohol was a contributory factor



Manoeuvre made by driver/motorcyclist who had consumed alcohol (n=250):

- Loss of control 66%
- Went to wrong side of the road 14%
- Other contributory factors also identified (e.g. speeding, fatigue, dangerous behaviour)

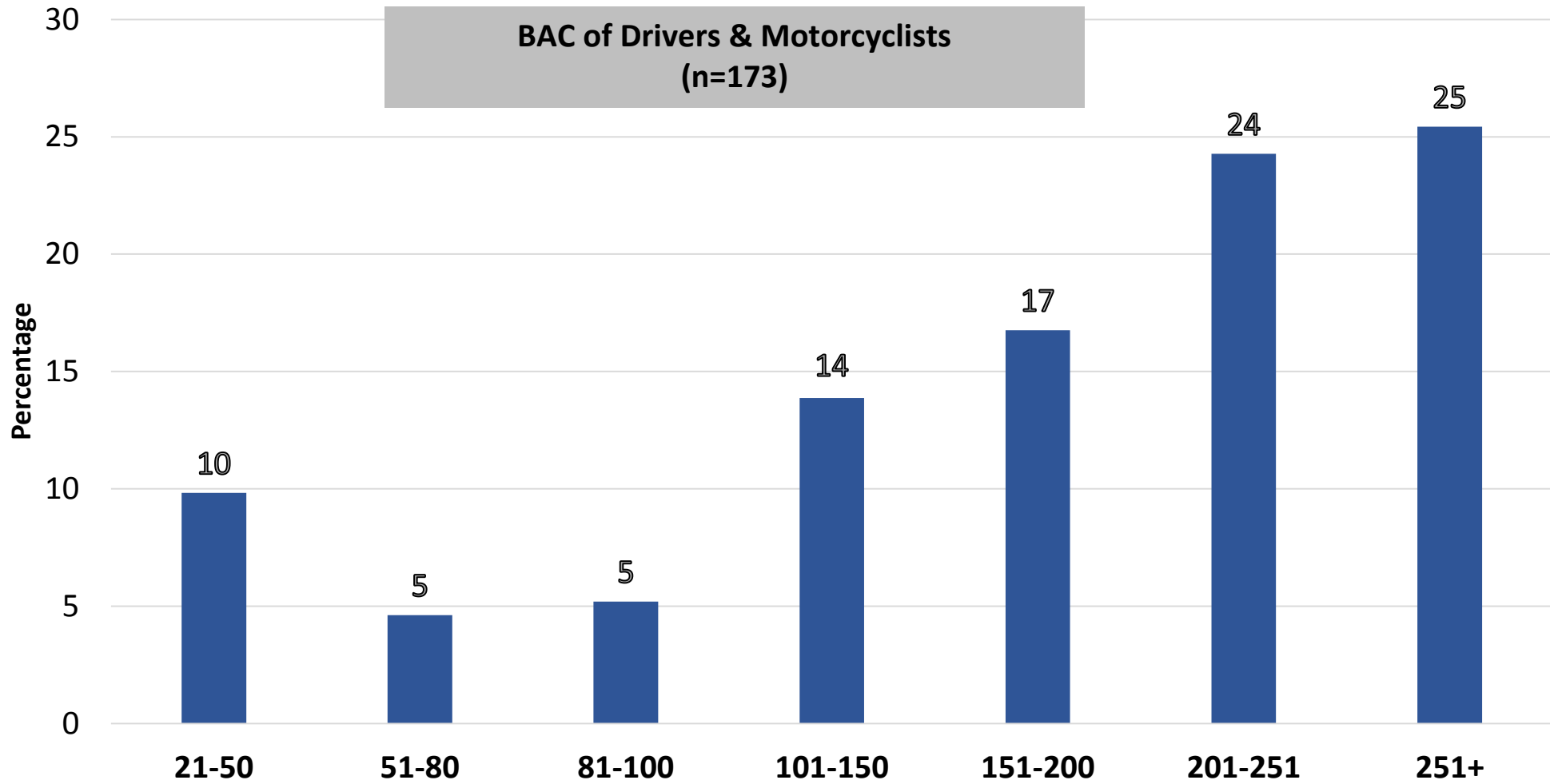
Seatbelt wearing rates for drivers who had consumed alcohol (n=217):

**51% of drivers** confirmed not wearing a seatbelt





8 in 10 had a BAC of more than 100mg

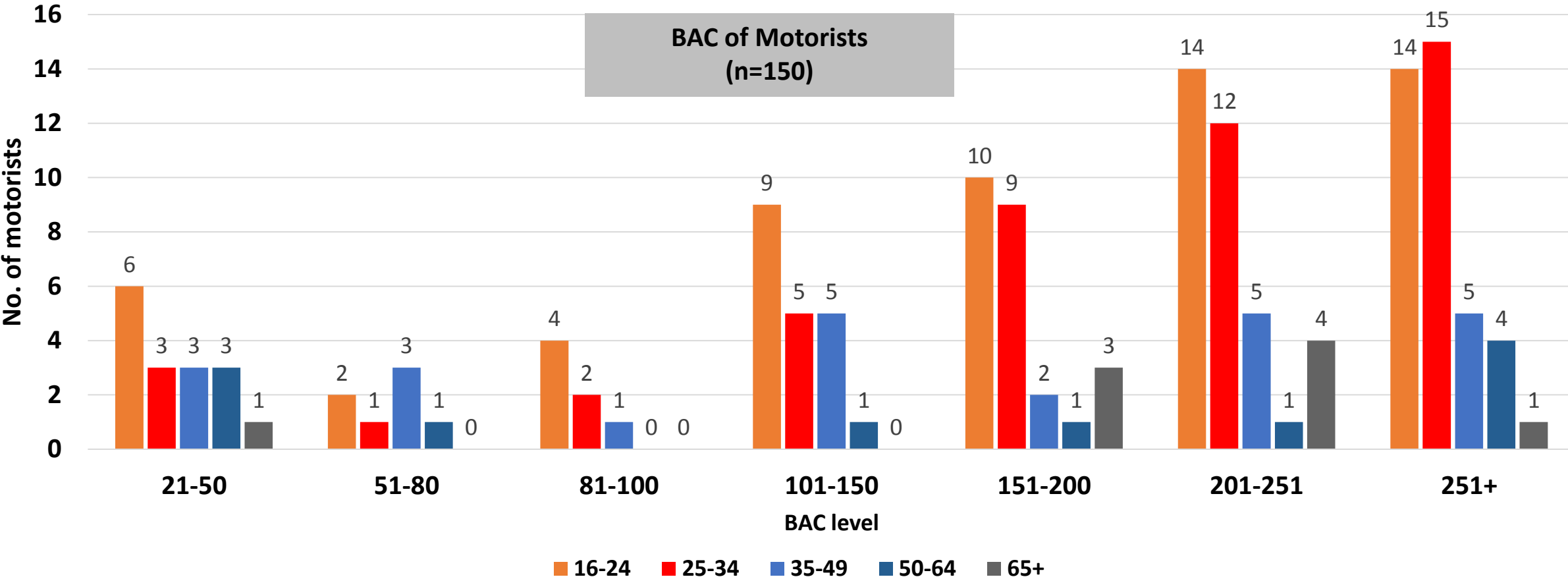


Similarly, 54 of the 65 pedestrians (83%) with a confirmed presence of alcohol had a BAC of over 100mg/100ml





BAC level by age: younger drivers had higher levels



# National Drug-Related Deaths Index



The **National Drug-Related Deaths Index** (NDRDI) is an epidemiological database, managed by the Health Research Board (HRB). This database records all deaths due to drug and alcohol poisoning, and all deaths among drug users and those who are alcohol dependent.

**Action 120** of the Road Safety Strategy (2013 – 2020) involved the extension of the remit of the NDRDI to collect **data on all RTC fatalities** from closed coronial files only.

Action No	Action
120	<i>‘Carry out a feasibility study to extend the remit of the National Drug-Related Death Index to collect all data on fatalities from coroner files’.</i>

The RSA receive RTC fatality data from the **closed coronial files** as collected by the NDRDI. This can include:

- Garda investigation reports
- Forensic collision investigation reports
- PSV reports
- Postmortem autopsy reports
- Toxicology reports
- Deposition statements
- Death certificates
- Coroner's verdicts

During 2013-2014, **381** road users died in RTCs in the Republic of Ireland. The 2013-2014 NDRDI coroner's data captures **269** of these fatalities (**71%**).

# RTC Fatalities with a Positive Toxicology for Alcohol: 2013-2014

## DEFINITION

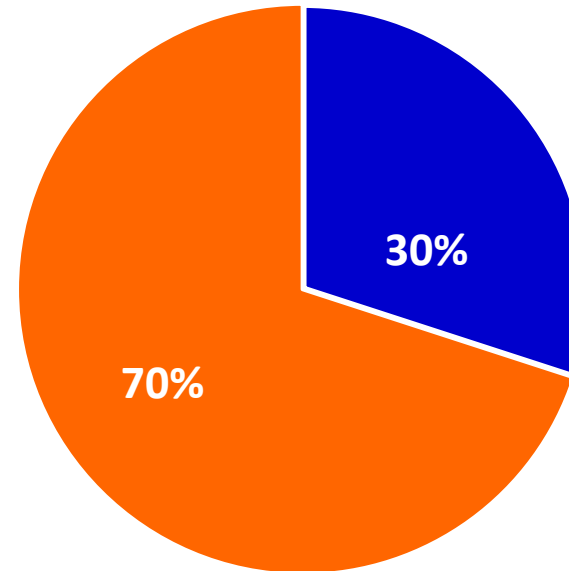
Confirmed presence of alcohol in antemortem and/or postmortem toxicology reports in road users killed in RTCs.

## THRESHOLD

>20mg alcohol per 100ml blood, or equivalent in urine.

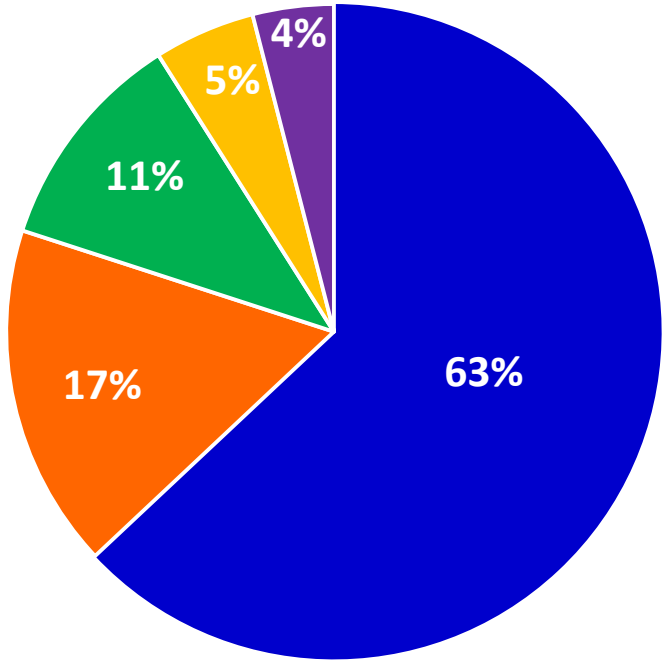
## RTC FATALITIES

N = 269



- RTC Fatalities with Alcohol Present
- RTC Fatalities without Alcohol Present

**RTC FATALITIES WITH A POSITIVE TOXICOLOGY FOR ALCOHOL**  
n = 82



■ DRIVER/MC ■ PEDESTRIAN ■ PASSENGER ■ CYCLIST ■ OTHER

# RTC Fatalities with a Positive Toxicology for Alcohol: 2013 - 2014

## WHO

**55%** of all fatalities with a positive toxicology for alcohol were male driver/motorcyclist deaths.

## WHERE

**33%** of all fatalities with a positive toxicology for alcohol took place in **Galway** (10%), **Cork** (11%) and **Dublin** (12%).

## WHEN

**57%** of all fatalities with a positive toxicology for alcohol took place 8pm-4am.\*

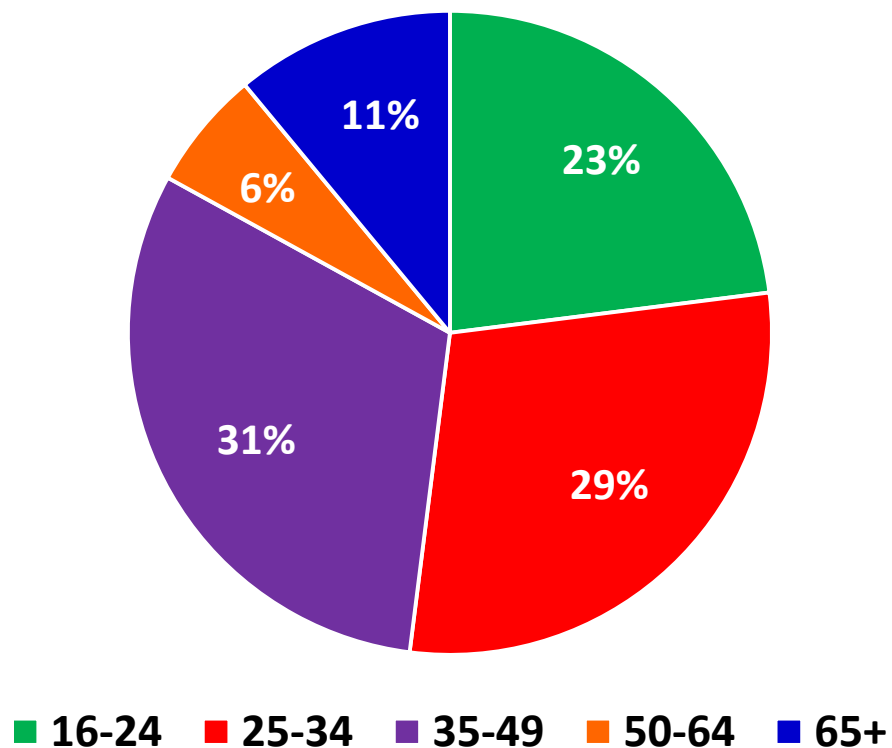
**65%** took place on Saturday (17%), Sunday (23%) & Monday (24%).

**33%** took place in June (13%), July (10%) & August (10%).



# Profile – Drivers/Motorcyclists with a Positive Toxicology for Alcohol: 2013 - 2014

**DRIVER/MC AGE**  
n = 52

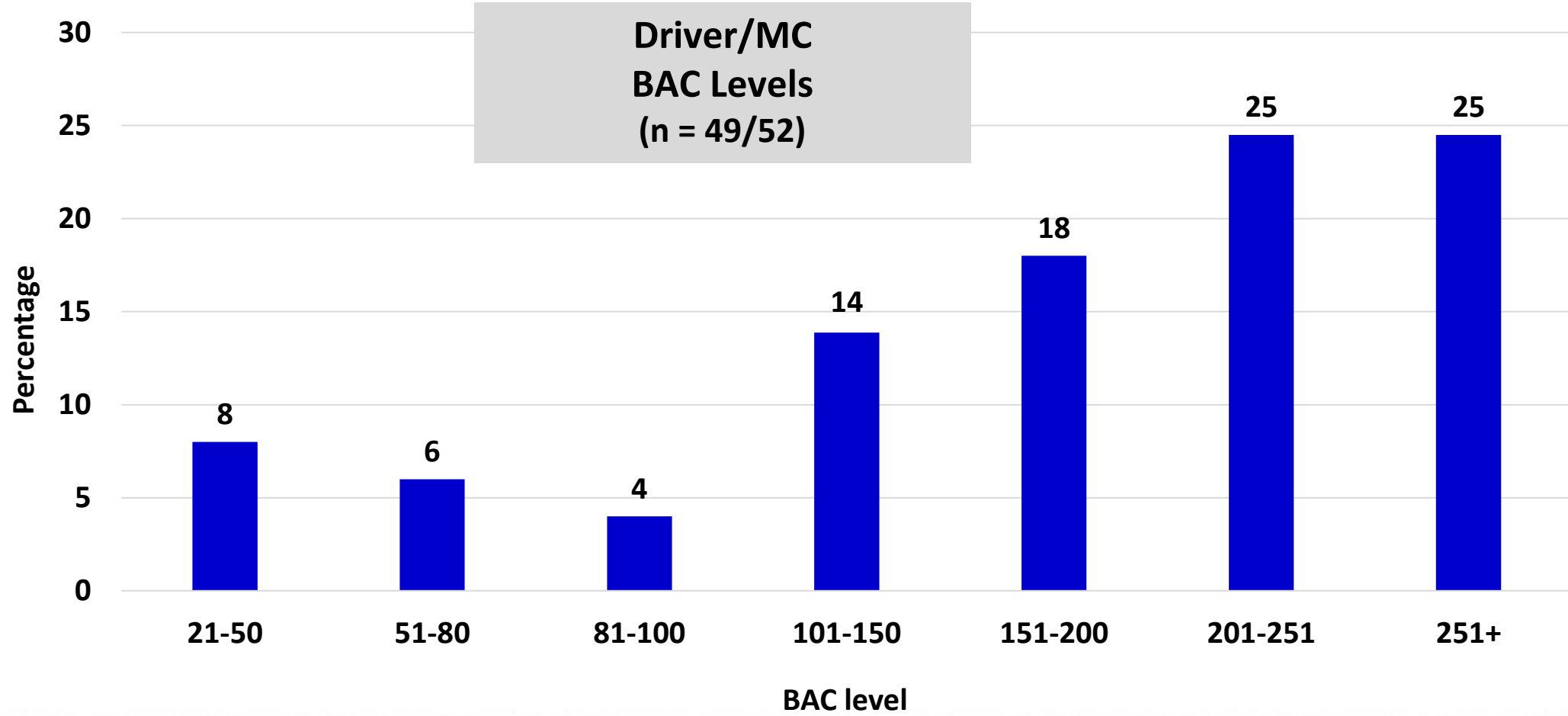


**87%** of driver/motorcyclist fatalities were male.

**71%** of driver/motorcyclist fatalities were Single Vehicle Collisions (SVCs).

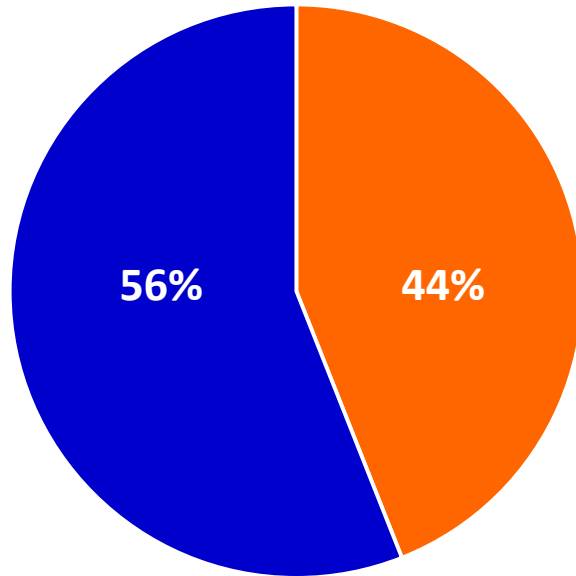
Where known, **50%** of car & van drivers were not wearing a seatbelt.

>8 in 10 had a BAC of more than 100mg/100ml.



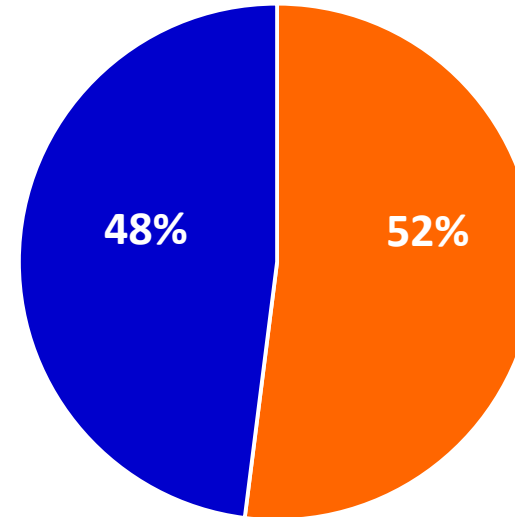
# RTC Fatalities with a Positive Toxicology for Alcohol and $\geq 1$ Drug: 2013-2014

## RTC FATALITIES WITH ALCOHOL PRESENT n = 82



- RTC Fatalities with Alcohol and  $\geq 1$  Drug Present
- RTC Fatalities with Alcohol Only Present

## DRIVER/MC FATALITIES WITH ALCOHOL PRESENT n = 52



- RTC Fatalities with Alcohol and  $\geq 1$  Drug Present
- RTC Fatalities with Alcohol Only Present

### PRELIMINARY DRUGS ANALYSIS

Alcohol + Drug Type Present	No. of Driver/MC Fatalities	% of Total (52)
Illicit Drug	18	35%
Prescription Drug	19	37%
Both Illicit & Prescription Drugs	13	25%
Neither (alcohol only)	25	48%

#### ALCOHOL + ILLICIT DRUG USE

The most prevalent illicit drug was **cocaine (17%)**.

#### ALCOHOL + PRESCRIPTION DRUG USE

The most prevalent prescription drug group was **benzodiazepines (13%)**.

#### ALCOHOL + MULTI-DRUG USE

**12%** of drivers/motorcyclists with a positive toxicology for alcohol had  $\geq 2$  illicit drugs present.

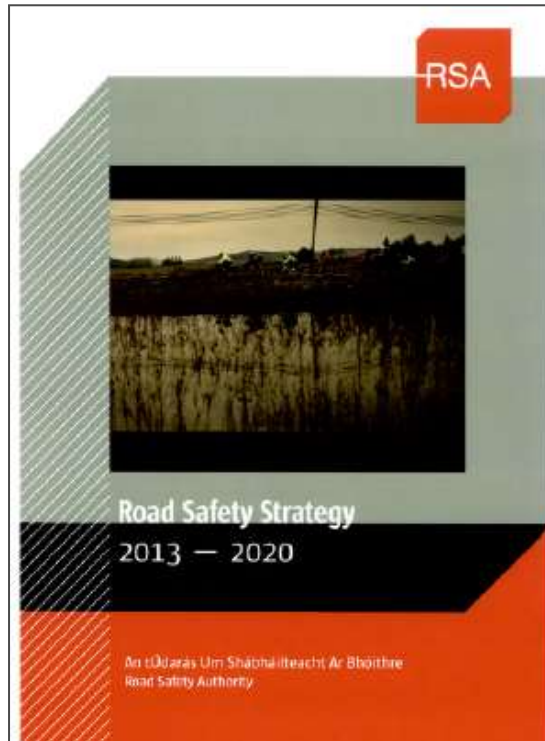
**NOTE.** Having a positive toxicology does not indicate that a drug(s) or substances found on toxicology were implicated in the death. Also, this analysis does not report on whether drug levels found on toxicology were within therapeutic range or not.

The Pre-Crash Study, and more recent coroner's data, **confirm** that **alcohol consumption** amongst road users is **still** a substantial problem in Ireland.

- A factor in **38%** of fatal collisions (2008-2012), and present in **30%** of RTC fatalities (2013-2014).
- The majority of drivers/motorcyclists and pedestrians had BAC levels **>100 mg/ml** (2008-2014).
- Between 8pm – 4am, on weekends, are key risk periods (2008-2014).
- Alcohol consumption **in conjunction with drug use** is **prevalent** in RTC fatalities. Exploring this further will be a **key research focus** going forward.



# Interventions to tackle alcohol in collisions



EDUCATION, ENFORCEMENT  
EVALUATION, ENGINEERING

## Appropriate Sanctions

Remove administrative sanction for drink driving at 50-80mg; replace with automatic disqualification

## Drink Drive Rehabilitation Courses (Action 107)

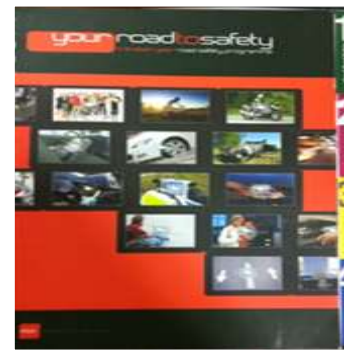
*Legislate for, subject to legal advice, and implement rehabilitation and driving awareness courses as court-based sentencing options for specific offenders*

## Alcohol Interlocks (Action 121)

*Undertake a cost benefit analysis for the use of alcohol interlocks as a sanction for repeat offenders*



# Education and Awareness Interventions



- Educational Resources
- National Road Safety Education Service
- Theory Test - Questions added
- **Always on strategy**
  - Combination of TV, Radio, Cinema
  - Online activity every weekend
  - Pub / Club washroom advertising all year
  - Aviva stadium (Rugby & Soccer)
  - Social Media all year (total of 26 short videos)





## The Road Safety Authority Advertising Tracking Research

### Crashed Lives Campaign 2017

Prepared for:



Údarás Um Shábháilteacht Ar Bhóithre  
Road Safety Authority

Prepared by  
John O'Mahony



### Methodology

Face-to-face in-home interviews  
751 motorists; Jan/Feb 2017

### Key Metrics

Recall  
Message take-out  
Attitudes  
Behavioural intent





Base: All motorists n - 751

## CHANGE IN BEHAVIOURAL INTENTION

### After seeing this advert...

- I will **take more care** when driving on the road (75%)
- I am **less likely to take a chance** by having 1 or 2 drinks before driving (75%)
- I will **not drink any amount** of alcohol before driving (76%)
- I will **encourage friends and family not to drink** any alcohol before driving (78%)

Note: (%) denotes % who strongly agree



Never ever drink and drive.



## Conclusion

- The problem of drink driving is not solved.
- Continued focus on research, and on the development of evidence-based interventions is critical
- The Ciaran Treacy Crashed Lives campaign is instrumental in spreading the message.

After viewing the Ciaran Treacy campaign:

- **42%** of motorists stated they were **more likely to refuse to drink any alcohol before driving**

# Thank you

## RSA International Conference *Alcohol: Tackling the crisis on our roads*

**Velma Burns, Research Manager  
Road Safety Authority**

**1<sup>st</sup> June 2017**

