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FactFind: Is Shane Ross right to say his drink-driving bill could save 35 lives?

Supplementary information
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Estimate of road deaths related to incidents where motorists had a BAC in the 21-80mg range

Road Safety Authority (RSA) analysis of 867 out of 983 fatal collisions between 2008-2012 led them to conclude that:

- 19 deaths over that five-year period resulted from collisions where a motorist was recorded with a BAC of 21-50mg
- 16 deaths resulted from collisions where a motorist was recorded with a BAC of 51-80mg.
- Three people were killed in collisions where a motorist recorded 27-66 mg of alcohol per 100 ml of *urine* (which is the equivalent of 21-50mg BAC).

The RSA told *TheJournal.ie* that these figures don't include deaths where a motorist failed a breath test, but their exact BAC was not recorded, so the figure of 35 deaths (and indeed 38 deaths) is probably an understatement.

However, we've come up with the following rough estimates, based on RSA data from 2008-2012. It should be noted that these are *not* RSA estimates, but they are based on our interpretation of RSA figures.

Deaths where a motorist was breath-tested

21-80mg BAC range

We know from the longer RSA report on 2008-2012 (page 56) that of the 198 motorists involved in a fatal collision, for whom a BAC was recorded, 11 failed a breath test.

We also know that of the 173 motorists involved in a fatal collision whose BAC was recorded via a *blood test*, 25 (14.5%) were recorded in the 21-80mg range.

So it's reasonable enough to estimate that of the 11 motorists who failed a breath test, 1.6 (14.5%) had a BAC of between 21 and 80mg, but it must be stressed that we simply don't know for sure.

The ratio between motorists who had consumed alcohol and were involved in fatal collisions (250) and the number of associated deaths (286) is 1.144.

If we apply that to the estimated number of motorists who failed a breath test with a BAC of 21-80mg (1.6), we get an **estimated resulting number of deaths of 1.8**.

51-80mg BAC range

When it comes to deaths associated with failed breath tests in the 51-80mg BAC range, we can apply the same rationale. This BAC range accounted for 8 out of the 173 motorists recorded with a blood test (4.6%).

This gives us a very rough estimate of 0.5 motorists breathalised at the 51-80mg level, and therefore **0.6 associated deaths**.

Deaths where a motorist had a urine-tested BAC range of 51-80mg

The RSA confirmed to TheJournal.ie that there were no deaths, stemming from the 867 collisions examined, which were associated with a motorist being urine-tested at the equivalent of the 51-80mg BAC level.

So let's combine all these elements:

In the 21-80mg BAC range:

- 35 known deaths related to 21-80mg blood tests
- 3 known deaths related to 21-50mg urine tests
- That's **38 known deaths** related to incidents where a motorist was driving in the 21-80mg BAC range

- 1.8 estimated deaths related to failed breath tests at 21-80mg
- That gives us **1.8 estimated additional deaths** related to motorists recorded driving with a BAC of 21-80mg, between 2008 and 2012.
- Which gives us an **estimated total of 39.8 deaths**

These deaths relate to 867 collisions examined by the RSA, but the actual number of fatal collisions was 983.

Assuming that the trends observed in those 867 were roughly similar to those in the remaining 116, we can extrapolate that there were **45 estimated deaths** related to motorists driving in the 21-80mg BAC range.

In the 51-80mg BAC range:

- **16 known deaths** related to 51-80mg blood tests
- 0.6 estimated death related to 51-80mg breath tests
- Which gives us an **estimated total of 16.6 deaths** related to motorists recorded driving with a BAC of 51-80mg, between 2008 and 2012.

Again, given the fact that these numbers are based on the examination of 867 out of 983 fatal collisions, we can extrapolate that there were **18.8** estimated deaths.

We can round this up to **an estimated 19 deaths** related to motorists recorded driving with a BAC of 51-80mg, between 2008 and 2012.

Alcohol and road deaths

2014

Road Safety Authority (RSA) and Health Research Board (HRB) research shows that in 2014, there were 193 deaths resulting from road traffic collisions.

For 136 of these deaths (70.5%), coroner's files were available for examination. Of those, 42 deaths involved alcohol in some way - that is, the deceased person tested positive for alcohol during the coroner's examination.

That's 30.9% of road deaths in 2014, in cases where coroner's reports were available.

Of the 42 people who died and had a positive toxicology for alcohol, 25 were motorists (including motorcyclists and drivers of vans and HGVs).

So what we can say for sure is that 25 deaths in 2014 were related to the presence of alcohol in a motorist. As a proportion of the 136 total road deaths for which coroner's reports were available, that's 18.4%.

The remaining 17 people who died in a road traffic collision and tested positive for alcohol were pedestrians (7), passengers (5) cyclists (2) and there were three cases where it could not be determined whether the deceased was the driver or passenger.

So it's important to note, in the context of the wider debate surrounding Shane Ross's bill, that the statistic "31% of road deaths are alcohol-related" does not mean 31% of road deaths were caused by drivers who had consumed alcohol.

It means that of the 70.5% of 2014 road deaths that were carefully examined, 31% of the deceased - including drivers, pedestrians, passengers and cyclists - tested positive for alcohol.

We don't know:

- The extent to which alcohol contributed to each fatal road traffic collision, and the extent to which other factors (speed, bad weather, road conditions) may have played a part
- The number of deaths related to the presence of alcohol in a motorist who may or may not have survived the collision (although we know that figure is at least 25, since that's the number of motorists who died and tested positive for alcohol)
- What the figures are for the 57 road deaths in 2014 for which a coroner's report was not examinable

2008-2012

According to separate RSA research, there were 983 fatal road traffic collisions between 2008 and 2012, leading to 1,077 deaths.

That report examined 867 of those fatal collisions, which led to 947 deaths, and found the following:

- 38.1% (330) of those fatal collisions were deemed to be alcohol-related, meaning that in that 38.1% of collisions, either a motorist, pedestrian or cyclist had consumed alcohol
- In 28 of those 867 fatal collisions (3.2%), alcohol was deemed to be the sole contributing factor
- These 28 collisions led to 30 deaths - 3.2% of the total number of road deaths examined
- In 301 of those 867 fatal collisions (34.7%), alcohol was combined with a range of other factors, including speed, fatigue, drug use, distraction, dangerous behaviour, and dark clothing

It's important to note here, that when someone says (as Shane Ross did at the Transport Committee) that "38% of road deaths are alcohol-related", that doesn't mean 38% of road deaths were caused by a motorist who had consumed alcohol.

It means that of the 88% of fatal collisions examined from 2008-2012, 38.1% involved alcohol consumption by either a motorist, passenger, pedestrian or cyclist.