



RSA

HGV Road Safety

An analysis of
HGVs involved in
Fatal and Serious
injury collisions

Publication date 20 July 2022



VISION
ZERO

Presentation outline

- This presentation will provide data and information on three specific aspects of HGV road safety
 - Collision data
 - Coronial data
 - Enforcement activity





Analysis of collisions where heavy goods vehicles were involved

Collision data (2016-2021)

Presented by Sinéad Bracken,
Statistician.

Introduction

Goods vehicle types

- **Light Goods Vehicles (goods vehicles with gross vehicle weight of less than 2 tonnes i.e. under 2,000kg):**
 - Van
 - Goods, not over 2 tons, unladen
- **Heavy Goods Vehicles (goods vehicles with gross vehicle weight of greater than 2 tonnes i.e. over 2,000kg):**
 - Goods, over 2 tons, rigid
 - Goods, rigid + trailer
 - Goods, artic with semi trailer
 - Artic, tractor only

The above are classifications of heavy goods vehicles and light goods vehicles as per the RSA's road traffic collision data.

These classifications differ to those used by the EU where a truck with a gross vehicle weight of over 3.5 tonnes i.e. 3,500kg is classified as a heavy goods vehicle and a truck with less than that gross vehicle weight is a light goods vehicle.

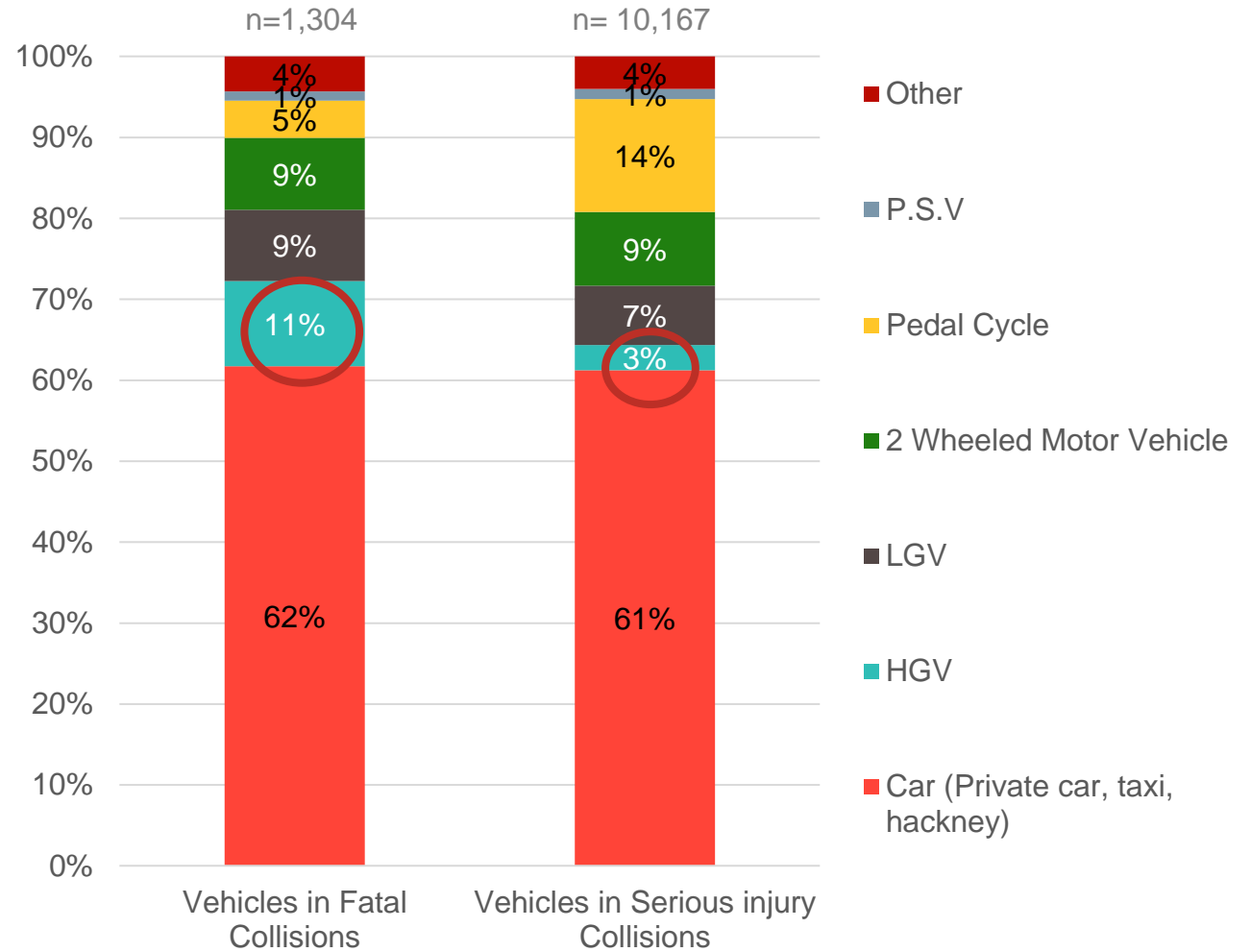
Vehicles involved in fatal and serious injury collisions



2016-2021

Of vehicles involved in fatal collisions, HGVs represent 11% (137).

The corresponding figure for HGVs in serious injury collisions is 3% (314).



Figures are provisional and subject to change.

Time of day and location of fatal collisions involving HGVs

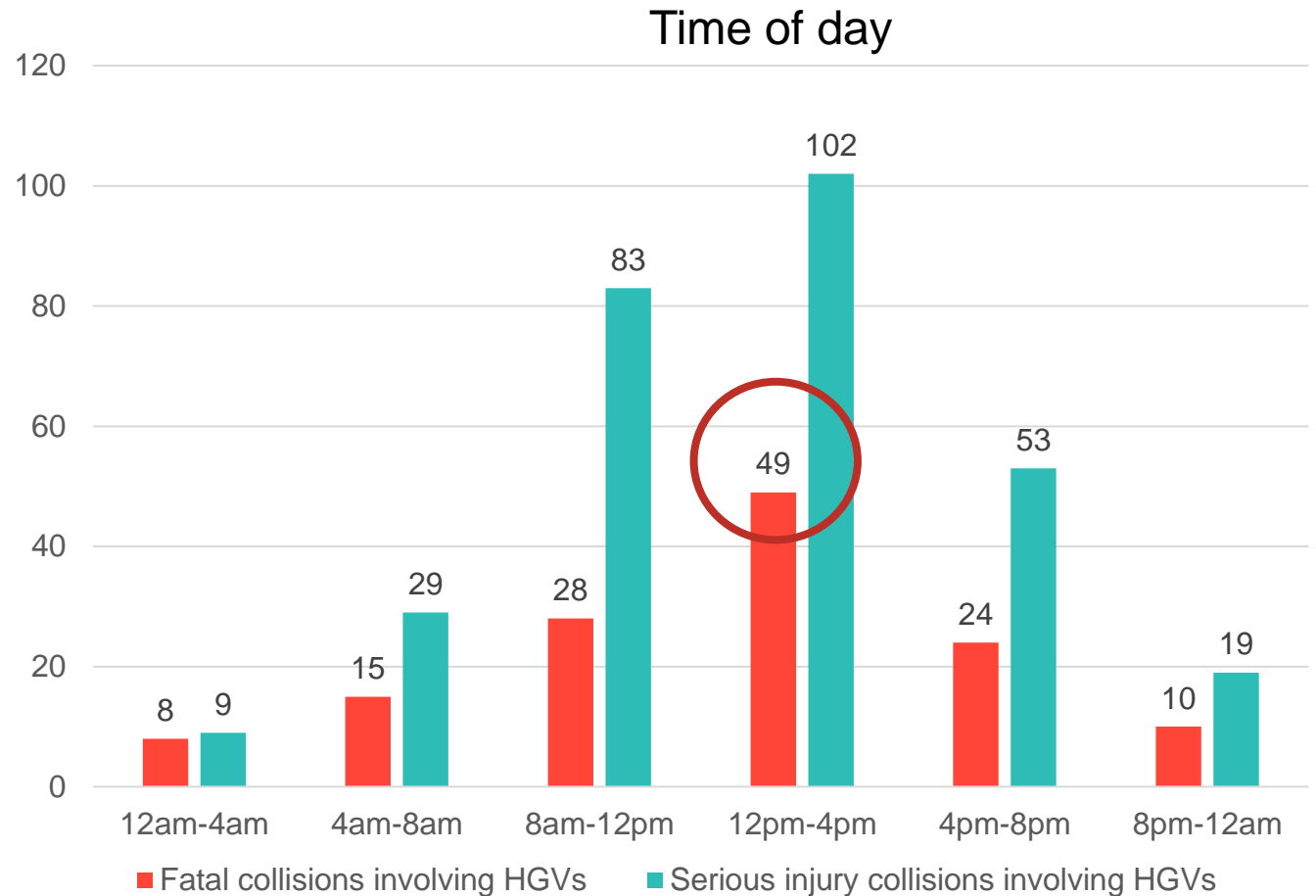


2016-2021

Of the **134 fatal collisions** involving a **HGV** a high number of collisions (49, 37%) occurred between 12pm and 4pm and a quarter (33, 25%) occurred on a Monday.

Cork and **Dublin** saw the highest number of fatal collisions involving HGVs (14% and 12% respectively).

Higher proportions of fatal collisions involving HGVs occurred on **rural roads** (74%), compared to 60% of serious injury collisions involving a HGV.

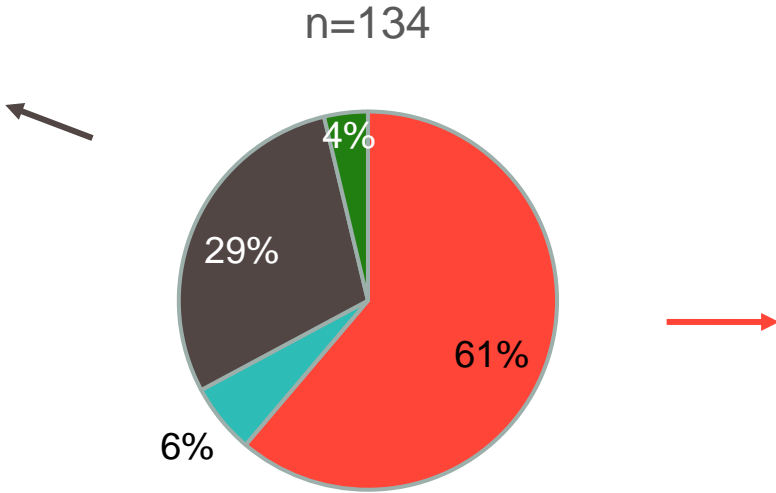


Figures are provisional and subject to change. An urban road has speed limit of ≤ 60 km/h while a rural road has a speed limit of ≥ 80 km/h.

Primary collision type of fatal collisions where HGV was involved

2016-2021

Of which	
Cyclist	8
Pedestrian	31
Total	39



Of which	
Head-On	48
Side Swipe	12
Rear End Straight	11

■ multiple vehicle collision ■ single vehicle collision
■ cyclist or pedestrian collision ■ Unknown

- Of fatal collisions involving HGVs, 61% were multiple vehicle collisions, 29% were involving a pedestrian or cyclist, 6% were single vehicle collisions and 4% were unknown.

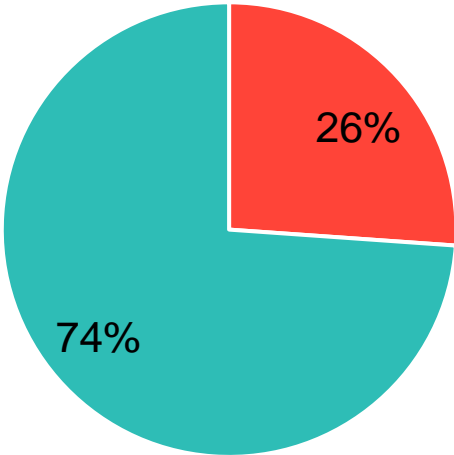
Figures are provisional and subject to change.



Location information: junctions

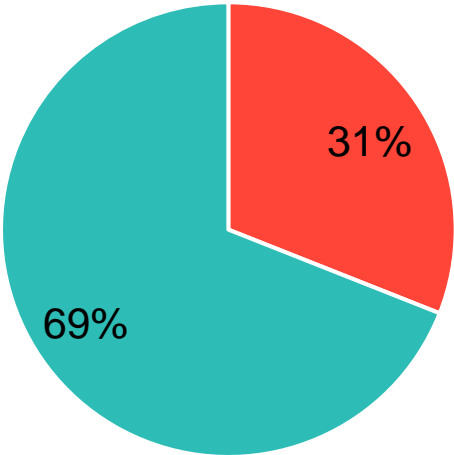
2016-2021

Fatal collisions (n=134)



■ At a junction ■ Not at a junction

Serious injury collisions (n=295)



■ At a junction ■ Not at a junction

Of fatal collisions involving a HGV, 26% occurred at a junction, compared to 31% of serious injury collisions involving a HGV

Figures are provisional and subject to change.

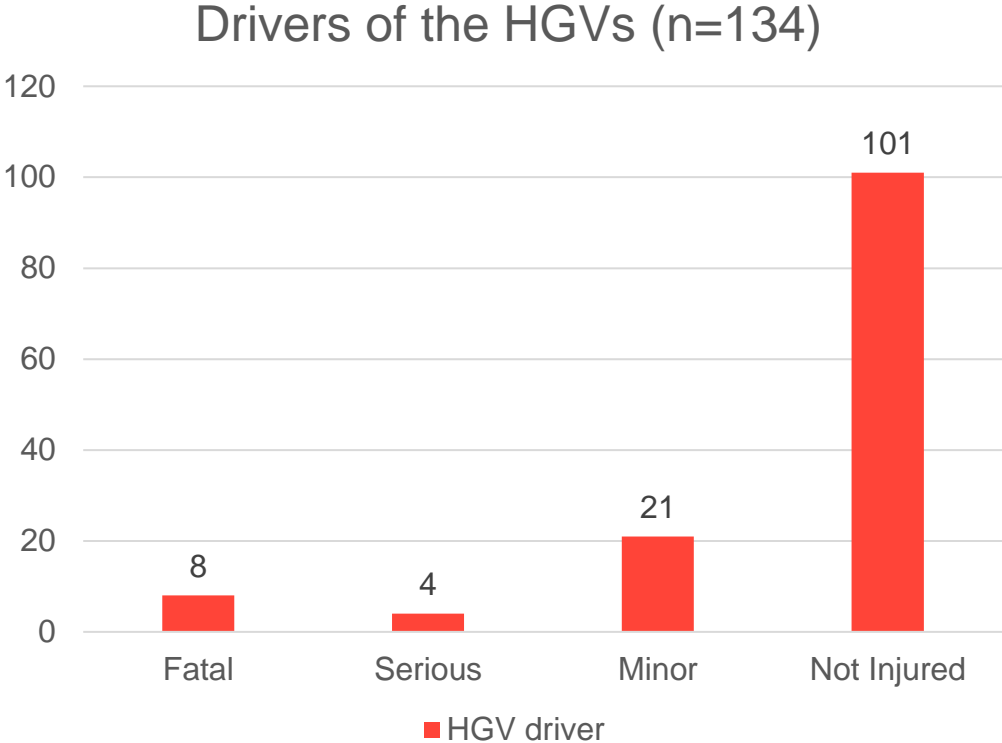


Drivers of HGVs in HGV fatal collisions

2016-2021

Of the 134 HGV drivers, 8 were fatal, 4 were seriously injured, 21 were minorly injured and 101 were not injured.

Of HGV drivers involved in fatal collisions, 39 (29%) were aged 46-55 years.



Note, 137 HGVs were identified but there are only 134 corresponding drivers. This is because 3 of the HGVs were parked.

Figures are provisional and subject to change.



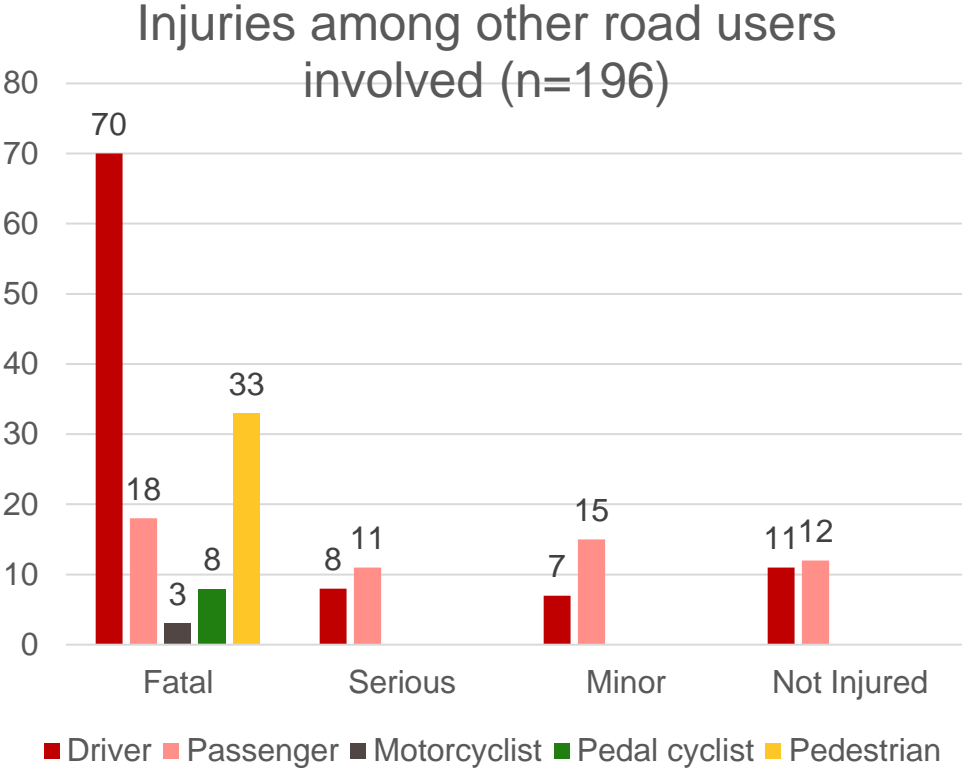
Persons involved in HGV fatal collisions

2016-2021

In the majority of fatal collisions involving HGVs either the driver of the other vehicle or a pedestrian is killed.

Those killed include:

- 70 private car drivers
- 33 pedestrians
- 18 private car passengers
- 8 pedal cyclists
- 3 motorcyclists



Figures are provisional and subject to change.



Vulnerable Road User casualties in collisions with HGVs

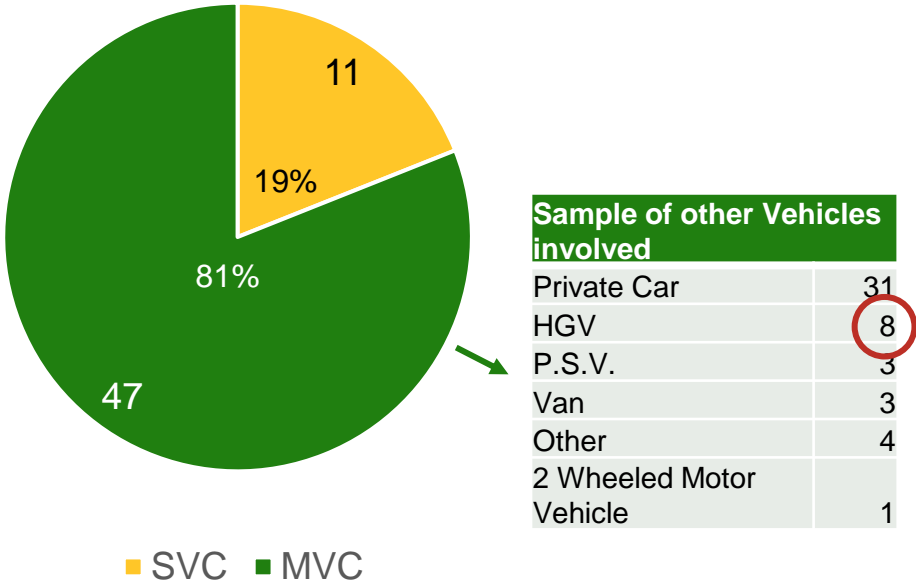
Sub-analysis on pedal cyclist and
pedestrian casualties

Cyclist fatalities and serious injuries by collision type

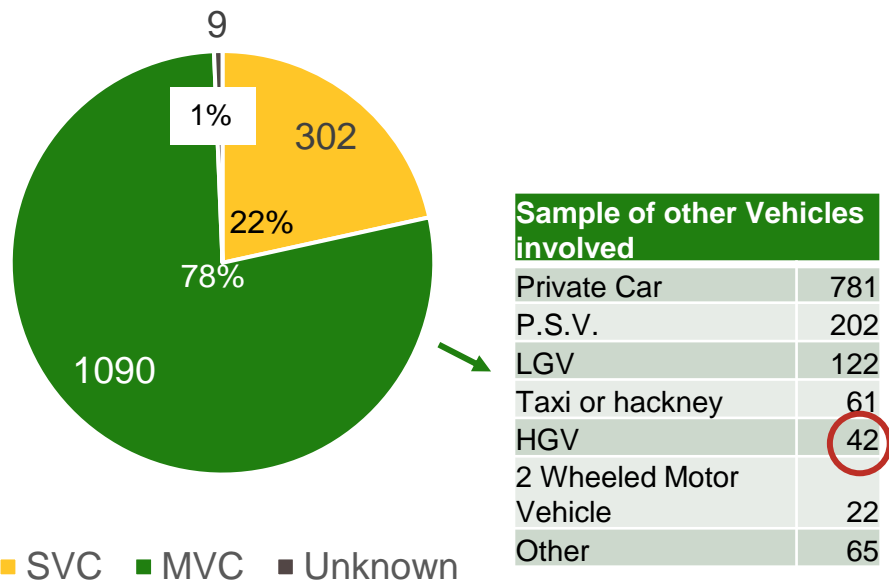


2016-2021

Cyclist fatalities by collision type



Seriously injured cyclists by collision type



Figures are provisional and subject to change.

Manoeuvre of HGV driver in fatal and serious injury collisions involving cyclists

2016-2021

Cyclist fatalities

- 4 of the 8 fatal **cyclists** were injured at a **junction**
- 4 of the 8 fatal **cyclists**, were injured when the HGV was **turning left**

Cyclist serious injuries

- 26 of the 42 seriously injured **cyclists** were injured at a **junction**
- 15 of the 42 cyclists were seriously injured when the HGV was **turning left**
- 12 cyclists were seriously injured when the HGV was **driving forward**

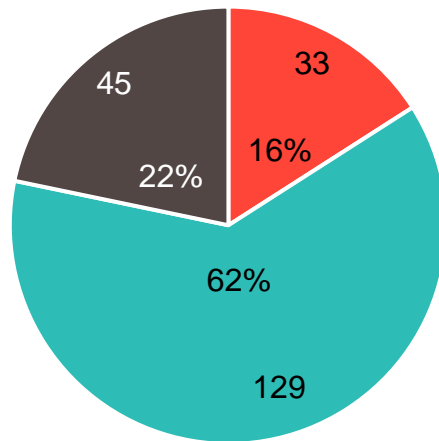


Vehicles involved in pedestrian fatal collisions and serious injury collisions



2016-2021

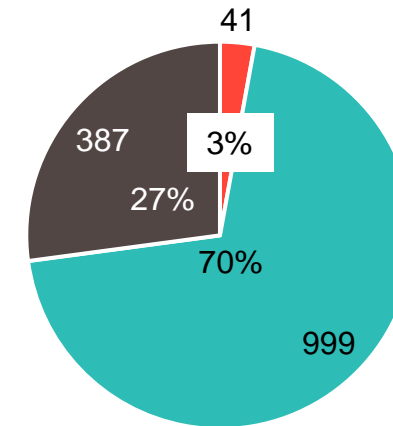
Vehicles involved in pedestrian fatal collisions



■ HGVs ■ Private car ■ Other Vehicle type

In collisions which resulted in the 185 pedestrian fatalities, 207 vehicles were involved.

Vehicles involved in pedestrian serious injury collisions



■ HGVs ■ Private car ■ Other Vehicle type

In collisions which resulted in the 1450 pedestrian serious injuries, 1427 vehicles were involved.

Figures are provisional and subject to change.



Manoeuvre of HGV driver in fatal and serious injury collisions involving pedestrians

2016-2021

Pedestrians fatalities

- 11 of the 33 **pedestrian** fatalities occurred at a **junction**
- 25 of the 33 **pedestrians** were fatally injured when the HGV was **driving forward**
- 4 of the 33 **pedestrians** were fatally injured when the HGV was **turning left**

Pedestrian serious injuries

- 8 of the 41 **pedestrian** serious injuries occurred at a **junction**
- 4 pedestrians were seriously injured when the HGV was **turning left**
- 27 of the 41 pedestrians were seriously injured when the HGV was **driving forward**



Observational survey results

Observational survey results relating to behaviours of Goods vehicle drivers.

Observational survey results

Observational survey results relating to behaviours of Goods vehicle drivers

- Light goods vehicle drivers (15%), and heavy good vehicle drivers (12%), were more likely to be observed **using their mobile phone behind the wheel of their vehicle** compared to car drivers (6%)¹.
- Light good vehicle drivers (86%) and heavy good vehicle drivers (84%) were less likely to be observed **wearing a seat belt** than car drivers (96%)¹.
- On **urban roads**, 52% of all cars observed were exceeding safe speed compared to 58% of all rigid and 72% of all articulated trucks observed².
- On **rural roads**, 27% of all cars observed were exceeding safe speed, compared to 41% of all rigid trucks observed and 44% of all articulated trucks observed².

1. *Seat Belt and Mobile Phone Usage Observation Survey, 2018, Road Safety Authority*

2. *Free Speed Survey, 2018, Road Safety Authority*

Summary points

- Of vehicles involved in fatal collisions, HGVs represent 11%.The corresponding figure for HGVs in serious injury collisions is 3%.
- In the majority of fatal collisions involving HGVs either the driver of the other vehicle or a pedestrian is killed.
- Of fatal collisions involving a HGV, 26% occurred at a junction, compared to 31% of serious injury collisions involving a HGV.

Fatalities and HGV drivers

Coronial data (2013-2017)

Presented by Dr Aoife Kervick,
Policy & Research Analyst.

Background

Coronial data

- ▮ The Health Research Board (HRB) collects data on road user fatalities on behalf of the RSA, while collecting data for their National Drug-Related Deaths Index (NDRDI).
- ▮ These data are collected from closed coronial files, which are the files stored in coroners' offices on completion of an inquest.
- ▮ The files typically contain: An Garda Síochána investigation report, Forensic Collision Investigation (FCI) report, witness statements, autopsy report, toxicology report, death certificate and verdict.
- ▮ The HRB also record some data in relation to one other road user involved in the road user fatality, referred to as the '3rd party'. In a cyclist fatality involving a car driver, for example, some data on the car driver would be recorded as the 3rd party.





HGV Driver Fatalities


(2013-2017)


Coronial data 2013-2017

HGV driver fatalities (n = 10)

- 

The RSA has coronial data for 10 HGV driver fatalities that occurred during 2013-2017. The majority of these HGV driver fatalities were male, driving for work, had a full license, and were wearing a seat belt.
- 

The majority of these HGV driver fatalities did not have a positive toxicology for alcohol or drugs.
- 

5 (50%) of the HGV driver fatalities failed to negotiate a bend. <5 were exceeding a safe speed.
- 

9 of the 10 HGV driver fatalities had a record of the condition of their HGV. 5 (56%) had at least one defect recorded (e.g., tyres) by the FCI, that may or may not have contributed in full or in part to the collision occurring.

Note: a positive toxicology for alcohol is recorded where the Blood Alcohol Concentration (BAC) of the deceased is >20mg alcohol per 100ml blood (or equivalent in urine). Up to five actions and five vehicle defects can be recorded for each driver fatality.



3rd Party HGV Drivers (2013-2017)

Coronial data (2013-2017)

3rd party HGV drivers (n = 78)

■ There were 78 HGV drivers listed as a 3rd party for 79 road user fatalities in the 2013-2017 coronial data.

Road user fatalities	N
Driver (car + van)	47
Pedestrian	17
Passenger	6
Motorcycle driver	5
Cyclist	<5
Total	79

■ The following analyses focus on these 78 3rd party HGV drivers.

Note: the HGV driver fatalities presented on the previous slide have been excluded from this analysis.

Coronial data (2013-2017)

3rd party HGV drivers (n = 78)

- 73 of the 78 3rd party HGV drivers had a record of their **actions** leading up to the collision. 15 (21%) of these drivers were taking an avoidance action. <5 were exceeding a safe speed.
- 76 of the 78 3rd party HGV drivers had a record of their **vehicle manoeuvres** leading up to the collision. The majority of these drivers (61, 80%) were driving forward. 8 (11%) were recorded as slow moving, and 5 (7%) were turning left.

Note: up to five actions and vehicle manoeuvres can be recorded for each 3rd party driver.

Coronial data (2013-2017)

3rd party HGV drivers (n = 78)

- 52 of the 78 3rd party HGV drivers had a record of an **alcohol test**. None of these drivers had a positive result for alcohol.
- 72 of the 78 3rd party HGV drivers had a record of the **condition of their HGV**. 10 (14%) of these drivers had at least one defect recorded by the FCI (e.g., tyres). 5 (7%) had a defect in relation to brakes recorded.

Note: up to five vehicle defects can be recorded for each 3rd party driver. These may or may not have contributed in full or in part to the collision occurring.

Driver Fatalities with 3rd Party HGV Drivers

(2013-2017)

Coronial data (2013-2017)

Driver fatalities with 3rd party HGV drivers (n = 52)

- There were 78 HGV drivers listed as a 3rd party for 79 road user fatalities in the 2013-2017 coronial data.

Road user type	N
Driver (car + van)	47
Pedestrian	17
Passenger	6
Motorcycle driver	5
Cyclist	<5
Total	79

- The following analyses focus on the 52 driver and motorcycle driver (referred to as 'driver') fatalities, where a HGV driver was listed as the 3rd party.

Coronial data (2013-2017)

Driver fatalities with 3rd party HGV drivers (n = 52)

- 49 of the 52 driver fatalities with a 3rd party HGV driver had a record of their **actions** leading up to the collision:
 - 27 (55%) of these driver fatalities went to the wrong side of the road.
 - 10 (20%) failed to stop or yield.
 - 7 (14%) failed to negotiate a bend.
 - 6 (12%) lost control.
 - 6 (12%) were exceeding a safe speed.

Note: up to five actions can be recorded for each driver fatality.

Coronial data (2013-2017)

Driver fatalities with 3rd party HGV drivers (n = 52)

- 48 of the 52 driver fatalities with a 3rd party HGV driver had a **toxicology** result available.
 - 10 (21%) of these driver fatalities had a positive toxicology for alcohol.
 - 5 (10%) had a positive toxicology for cannabis.
 - 5 (10%) had a positive toxicology for at least one benzodiazepine.

Note: a positive toxicology for alcohol is recorded where the Blood Alcohol Concentration (BAC) of the deceased is >20mg alcohol per 100ml blood (or equivalent in urine). Analysis of drug data focused on a selection of drug categories. A positive toxicology for a drug does not imply impairment. Fatalities may have had a positive toxicology for more than one drug category, and more than one drug within one drug category.



Conclusions

Conclusions

Key findings and next steps

- ▮ The RSA has coronial data for **10 HGV driver fatalities** that occurred during 2013-2017.
- ▮ 21% of **3rd party HGV drivers** were taking an avoidance action.
- ▮ 55% of **driver fatalities** with a 3rd party HGV driver went to the wrong side of the road. 21% had a positive toxicology for alcohol.
- ▮ It is important to consider a **range of data** to understand the role of HGV drivers in road traffic collisions.
- ▮ The RSA will be publishing a **report** in Q2 2022 on HGV drivers.
- ▮ The RSA is working with the HRB to **pilot expanding** certain aspects of the data collection process.

All statistics are calculated out of the total number of road users with a record/result available for the variable being reported on.



Enforcement activity

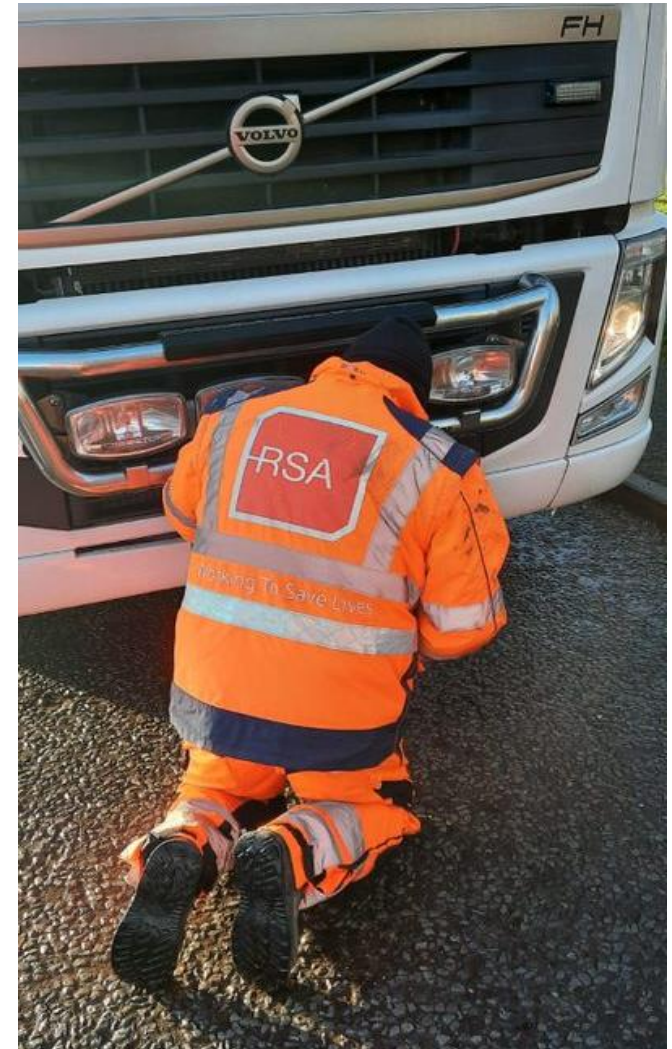
Overview of enforcement activity

Presented by Justin Martin
Head of Enforcement.

Enforcement

RSA enforcement officers at work

RSA



Contents



- Areas of responsibility
- 2021 enforcement activity
- Top 10 roadworthiness defects detected roadside
 - Consequences for non-compliance
- Top 10 tachograph & licensing infringements detected
 - Consequences for non-compliance
- Prosecution Achievements
- 2022 inspection targets and progress to date
- Priorities for the remainder of 2022
- Current challenges



Enforcement Team – Areas of Responsibility



18 Vehicle Inspectors

- ❖ Roadside roadworthiness inspections
- ❖ Act as witness for prosecutions taken by members of AGS
- ❖ High priority operator premises inspections
- ❖ Quality assessments of AA Technical Inspectors
- ❖ Technical inspection queries




20 Transport Officers

- ❖ Enforce drivers hours, tachograph, operator licensing, posting of drivers & driver CPC regulations
- ❖ Conduct both routine and high priority premises inspections
- ❖ Take Court prosecutions
- ❖ Tachograph & licensing inspection queries



3 Admin Personnel

- ❖ Query Management – Enforcement, CVORI & Self-Dec related
 - ❖ Targeting
 - ❖ Manage the operator premises element of the TISP contract (AA)
 - ❖ Report on all aspects of enforcement activity
 - ❖ Progress enforcement actions in Business Plans & the RSS
 - ❖ Provide administrative support to wider enforcement team
- 

2021 enforcement activity



Roadworthiness

Achieved in 2021

- 17,701 vehicles inspected roadside, 1,184 of which were buses
- 24% of vehicles inspected had major defects, of which the most common were:
 - inoperative or partially inoperative lighting systems
 - excessively worn braking components and malfunctioning anti- lock braking systems
- 4% of vehicles inspected had dangerous defects , of which the most common were:
 - excessively worn or damaged tyres
 - inoperative brake lights
- 62% of inspections were on high-risk & medium-risk operators
- 4,265 operator premises roadworthiness inspections
- 9% of roadside inspections on out of state operators

Tachograph & Licensing

Achieved in 2021

- 3,207 drivers inspected
- 55% of inspections on high-risk & medium-risk operators
- 176 T&L premises inspections
- 10% of roadside inspections on out of state operators
- Over 12,000 infringements detected. Infringements include: Failure to take adequate break, failure to take daily rest period, among others.

CVRT

Achieved in 2021

- Upward trend



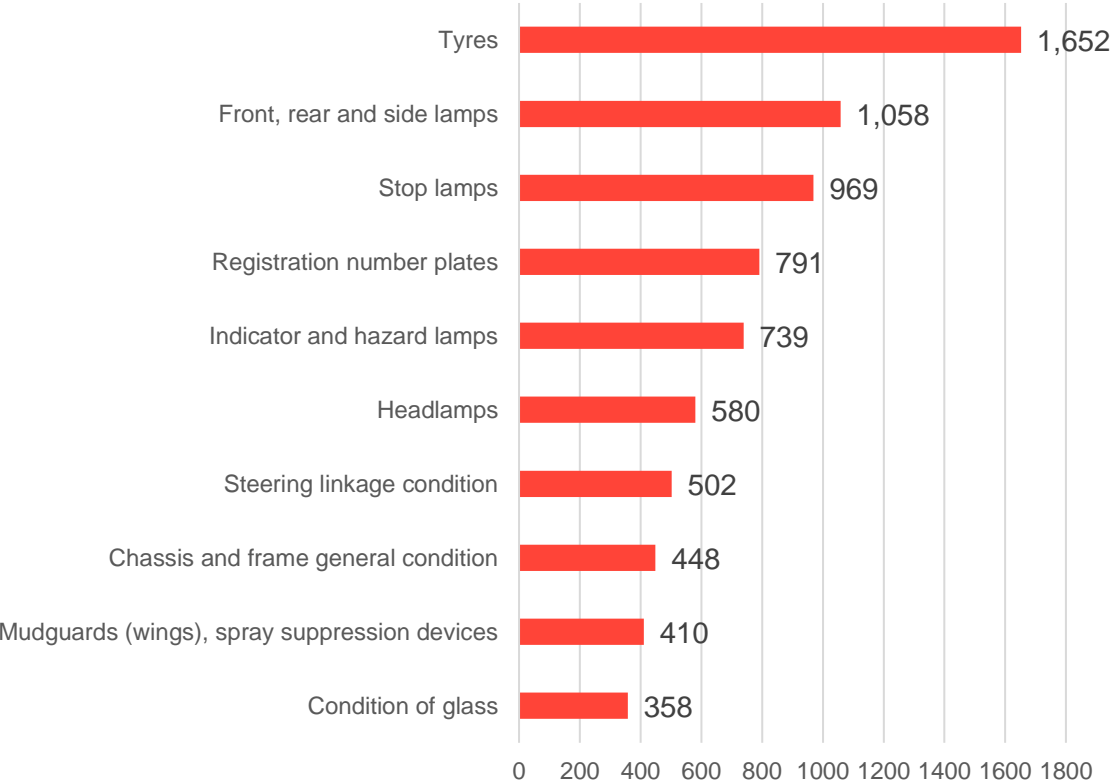
Year	No. of HCVs tested	Pass first time	% pass first time
2019	86,642	58,050	67%
2020	76,804	55,299	72%
2021	90,170	66,726	74%

Top 10 defects 2021 - roadworthiness



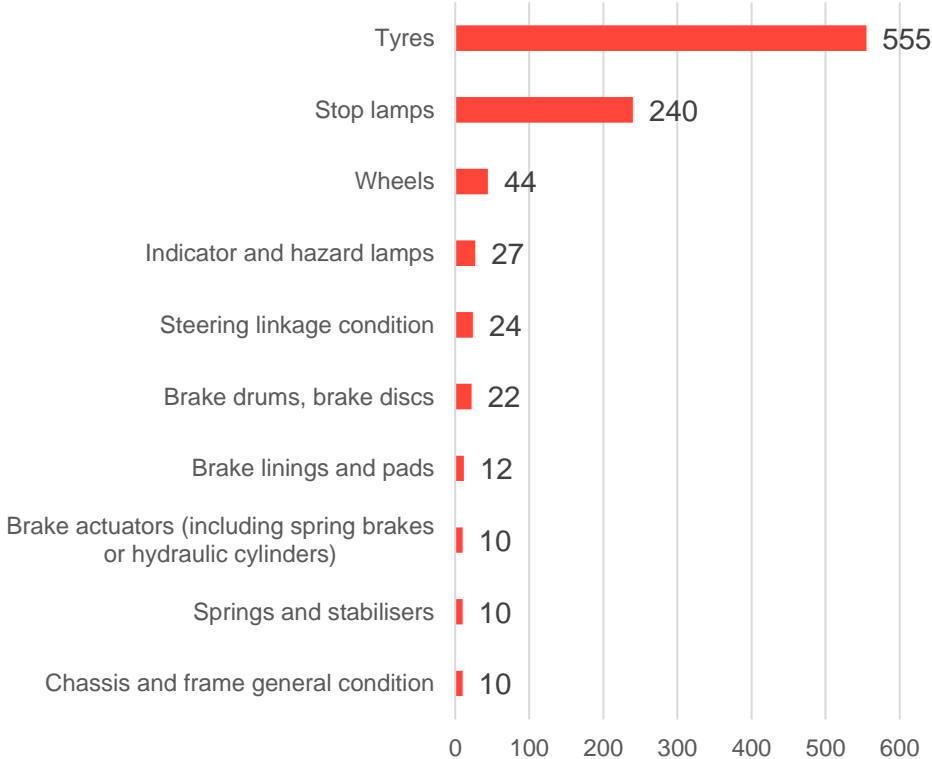
Top 10 defects detected roadside

2021



Top 10 dangerous defects detected roadside

2021

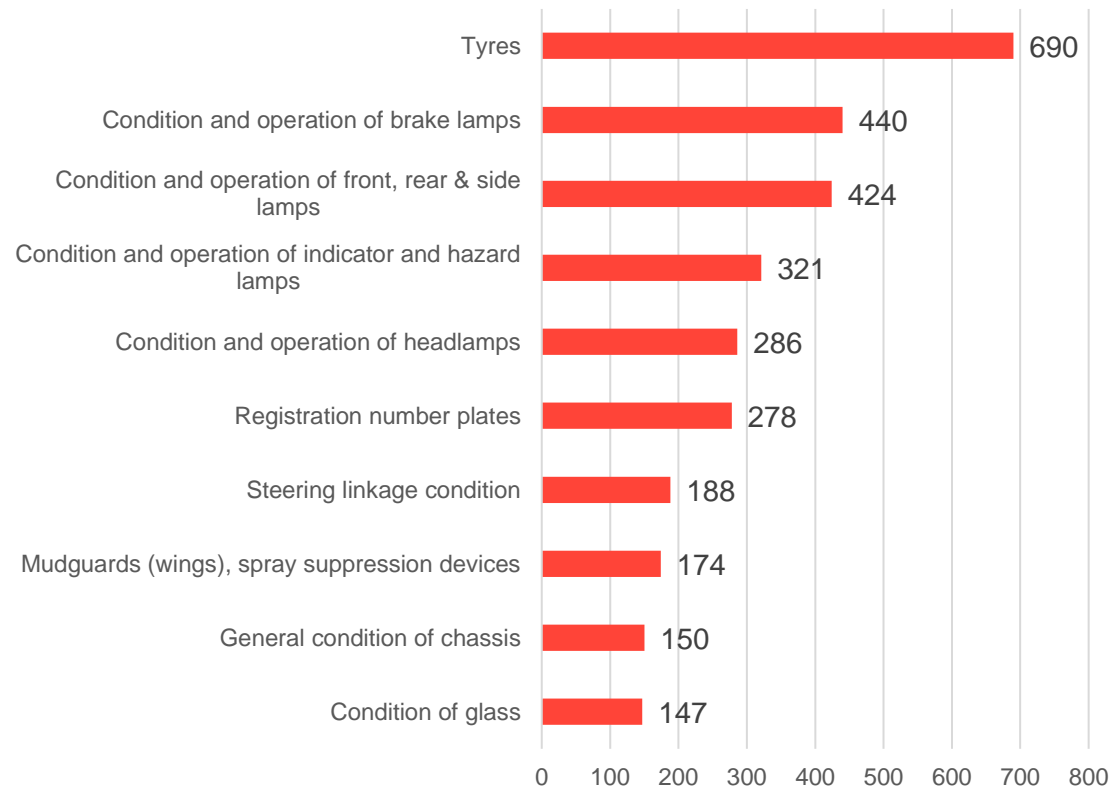


Top 10 defects 2022 YTD - roadworthiness



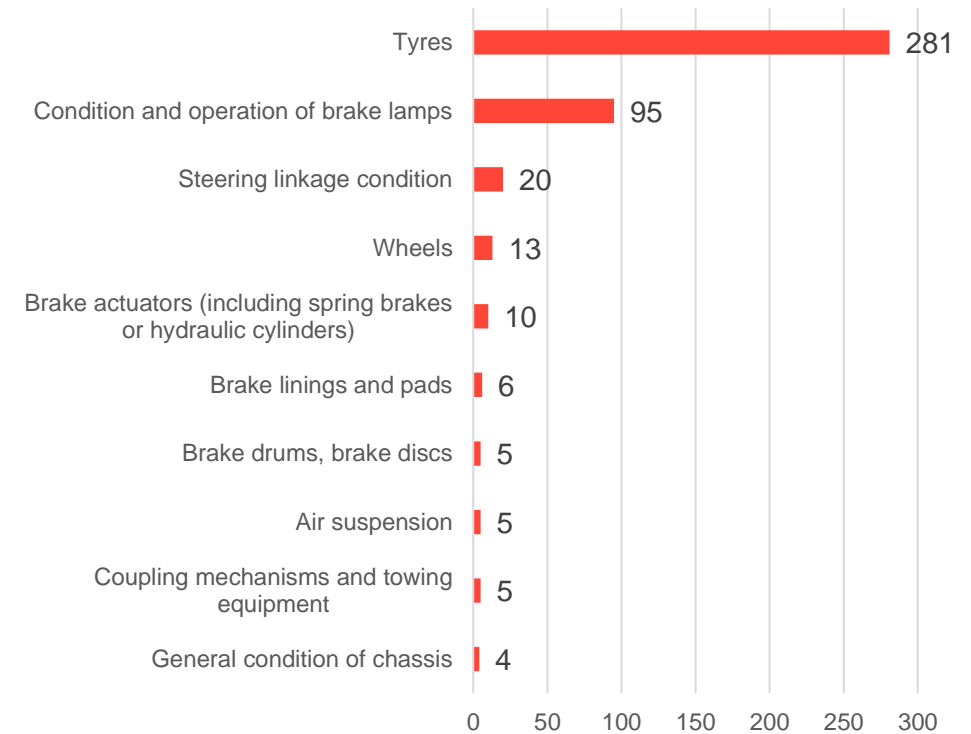
Top 10 defects detected roadside

Jan to April 2022



Top 10 dangerous defects detected roadside

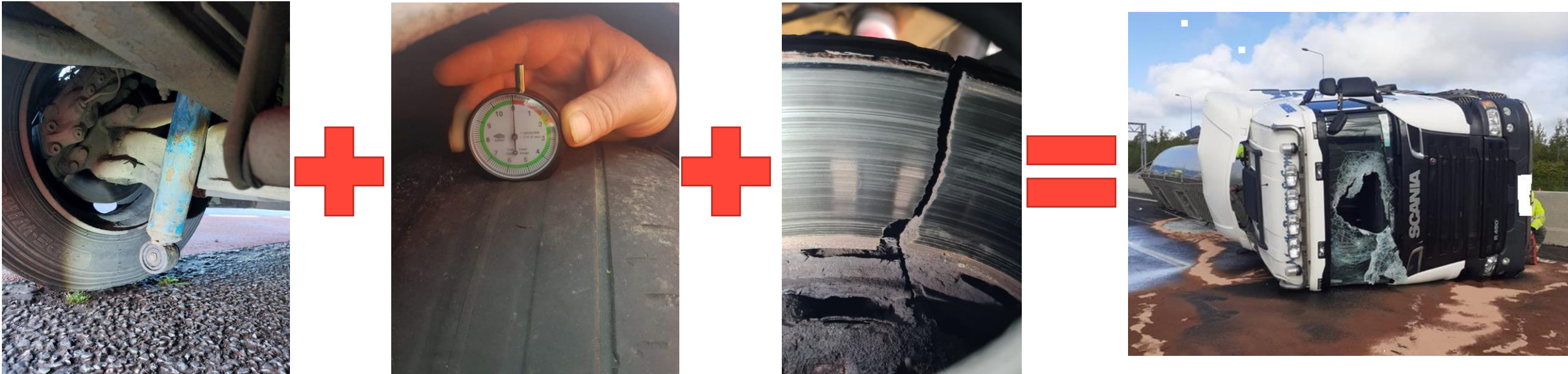
Jan to April 2022



Potential consequences of non-compliance



- Vehicle order to be repaired on site
- Requesting evidence of repairs within a specified timeframe
- Prohibition/impounding the vehicle
- Vehicle taken to a CVRT centre for further investigation
- Recommend a FCPN/prosecution to a member of An Garda Síochána (AGS) working at the checkpoint



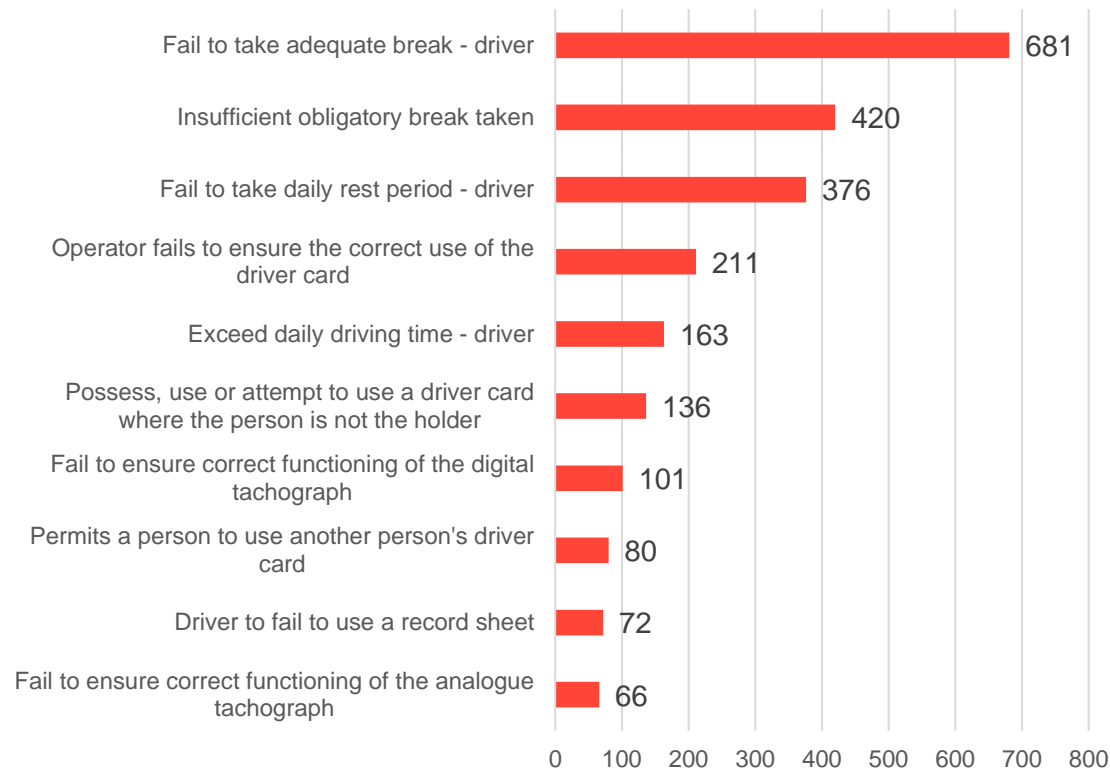
Top 10 Most Serious (MS) & Very Serious (VS) infringements 2021 – tachograph & licensing inspections



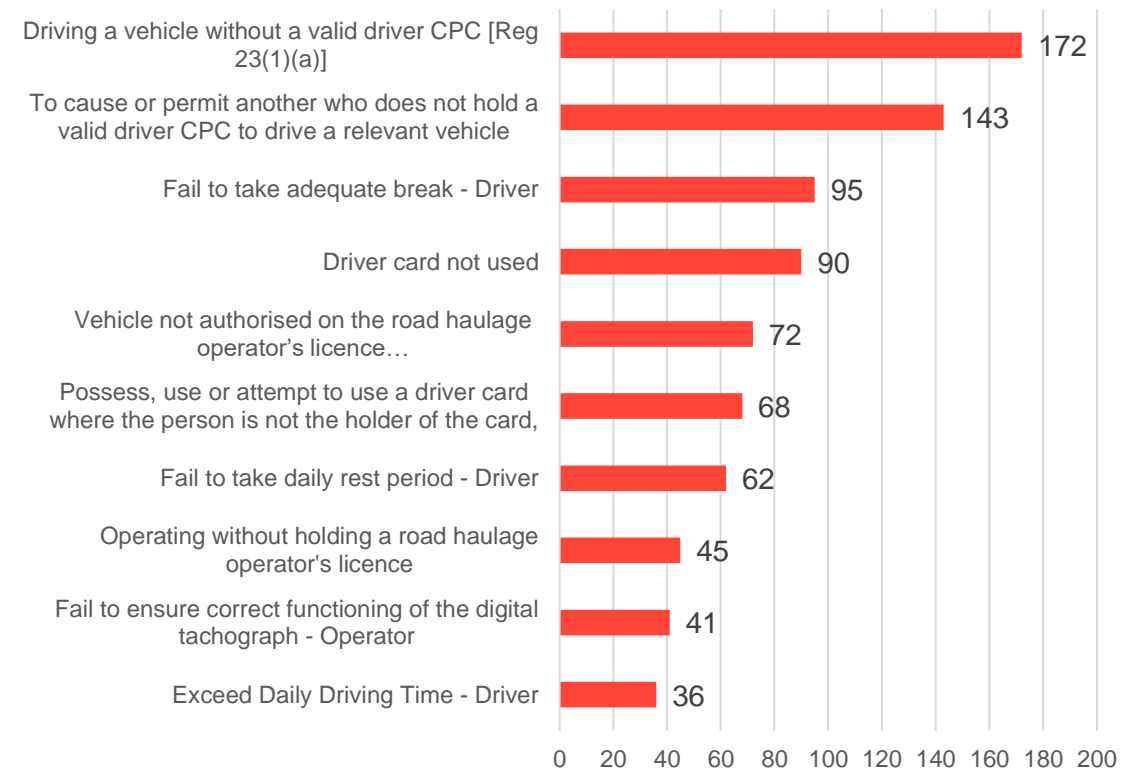
Top 10 MS & VS infringements detected

Top 10 Infringements prosecuted

2021



2021

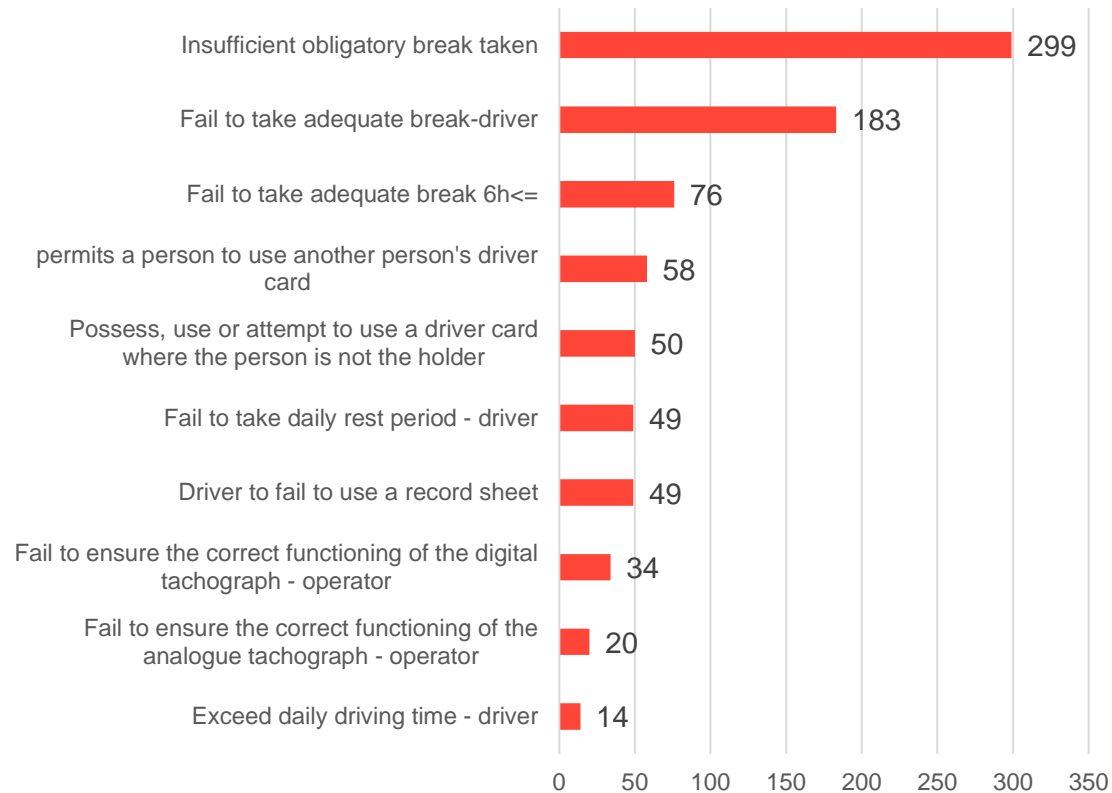


Top 10 MS & VSI infringements 2022 YTD – tachograph & licensing inspections



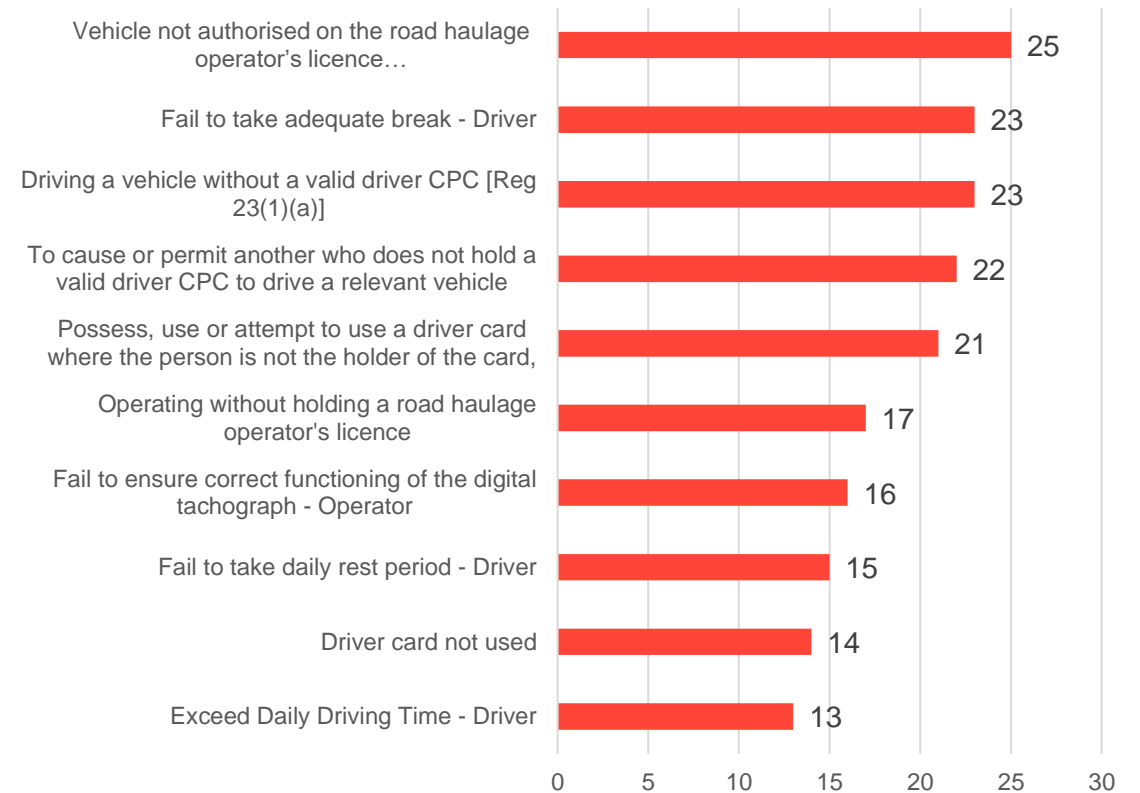
Top 10 MS & VS infringements detected

Jan to April 2022



Top 10 Infringements prosecuted

Jan to April 2022



Potential consequences of non-compliance

- Offering advice and education
- Enforcement action
 - Issuing Direction notices
 - Prohibitions
 - Oral/written warnings
 - Directing vehicles to authorised tachograph workshops for repair
 - Undertaking follow-up premises inspections
 - Initiating court proceedings



Prosecutions

Achievements



- New panel of solicitors established
- Volumetric increases due to:
 - Increased availability of RSA & Garda (AGS) resources
 - Improved scheduling with AGS
 - More out of hours checkpoints
 - Better targeting
 - No COVID related disruption to services
 - Prioritising worst offenders from roadside encounters

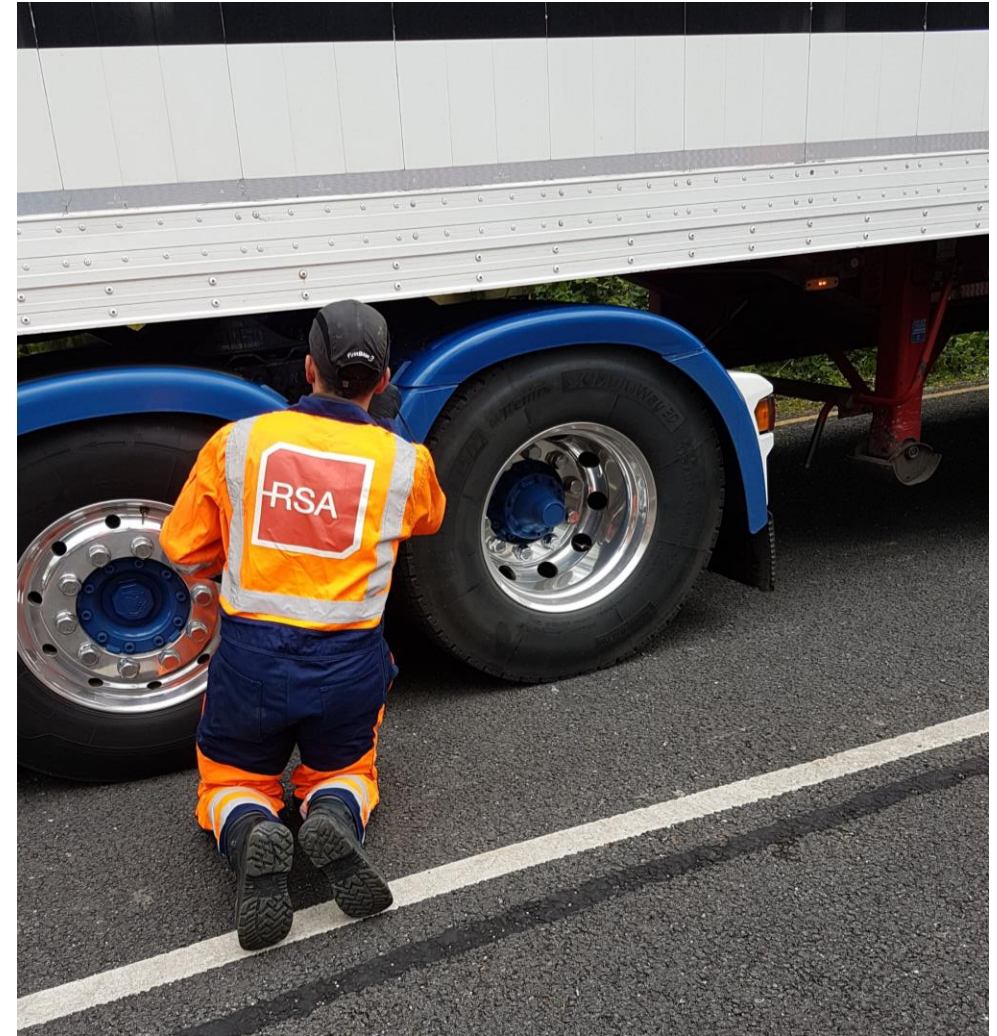
	YTD 24/05/21 – 23/05/22	Prev. Year 24/05/20- 23/05/21	Change	% Change
Cases created	449	402	+47	12%
Cases completed in court	217	126	+91	72%
Successful court outcome	178	106	+72	68%
Success rate at court	82%	84%	-2	-2%



2022 inspection targets - roadworthiness

RSA

2022 target	Achieved to 30/06/2022
16,000 roadside vehicle inspections	11,145
1,600 roadside bus inspections	1,010
15% of roadside inspections on high-risk operators	6%
4,050 operator premises inspections (by TISP)	1,615
15% of roadside inspections on out of state operators	9%



2022 inspection targets – tachograph & licensing



2022 target	Achieved to 30/06/2022
3,000 roadside driver inspections	1,867
15% of roadside inspections on high-risk operators	15%
190 T&L premises inspections	101
15% of roadside inspections on out of state operators	9%



Priorities for the remainder of 2022



Top priorities for enforcement team

- Hit annual inspection targets / partnership with An Garda Síochána
- Work with DoT to address legislative deficits
- Upskilling and training team members
- Delivery of Enforcement related actions in RSS
- Ensuring effective EU representation

Key actions in the Road Safety Strategy for Enforcement team to progress

- Implement and enforce relevant aspects of the EU Mobility Package and the EU/UK TCA
- Establish a Commercial Vehicle Advisory panel of relevant stakeholders
- Conduct a feasibility study on earned recognition scheme for commercial vehicle operators
- Progress draft legislation to enable the issuing of fixed penalty notices by TO team
- Develop proposals for integrating new data-sets into CVORI
- Identify and report on potential new enforcement technologies



Challenges for the enforcement team



- Legislative deficits
- Implementation of enforcement related actions in the new RSS with external dependencies
- Implementing EU Common risk rating formula – data sharing dependency
- Data sharing with other state agencies - routine enforcement operations
- Transition of CoVIS contract from SGS to Fujitsu & Introduction of an Electronic Data Capture solution





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