Delivering heavy vehicle safety solutions together

Queensland's Heavy Vehicle Safety Action Plan 2016–18

Queensland Government

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Foreword

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As Queensland's population, economy and demand for goods grow, so does our reliance on heavy vehicles. Heavy vehicles are a critical part of the freight network, delivering essential goods, services and jobs for our communities across such a vast state.

Unfortunately, heavy vehicles are also over represented in Queensland's road toll. In 2015, heavy vehicles accounted for about 2.3% of all registered vehicles in Queensland, but were involved in 20.2% of all road fatalities. Of course, this does not mean that heavy vehicle drivers were at fault in all of the crashes.

Like all other road crashes, those involving heavy vehicles are generally the result of the interplay between human behaviours, the speed of the vehicles involved, the quality of road and roadside infrastructure and the vehicle safety features. However, the size and mass of heavy vehicles can lead to more serious crash outcomes, and they can have greater exposure to crash risk given the amount of time spent on the road.

Governments and industry are acutely aware of the road safety risks, and have made significant safety improvements over recent decades, including in vehicle design, technology and condition, driver qualifications, education and fatigue management, and enforcement.

However, in 2015, there were 49 lives lost, and hundreds of people were seriously injured[1] as a result of heavy vehicle involvement in crashes. These numbers are too high, and more must be done.

The Queensland Government recently launched *Queensland's Road Safety Strategy 2015–21* and *Action Plan 2015–17*. The Strategy is the first time any Queensland Government has adopted a vision of zero road deaths and serious injuries. Although this vision is undeniably ambitious, it serves to guide, inspire and motivate action over the long-term, supported by interim targets along the way.

Queensland's Road Safety Action Plan 2015–17 presents the initiatives to be delivered over the first two years of the Strategy to work towards the Strategy's objectives. It includes 57 initiatives and over $500 million of investment that will benefit all road users – including education and engagement, enforcement, technology, roads and roadsides, research, data, innovation, governance and strategy. Importantly, it also calls for the delivery of a Heavy Vehicle Safety Action Plan, which specifically targets those initiatives that will improve safety outcomes for heavy vehicles and other road users involved in crashes with heavy vehicles.

This *Heavy Vehicle Action Plan 2016–18* has been developed in support of *Queensland's Road Safety Strategy 2015–21* and *Action Plan 2015–17*. It was prepared in partnership between the Department of Transport and Main Roads, the Queensland Police Service and heavy vehicle industry representatives.

Achieving the vision of zero road deaths and serious injuries will take a serious commitment from everyone involved in the road network to understand their role in saving a life. Heavy vehicles are a critical part of this journey, and government and the heavy vehicle industry are committed to working collaboratively in this endeavour.

1 Data Analysis Unit, DTMR QLD, Data extracted 12 January 2016 (unpublished). Detailed hospitalised casualty data for 2014 and 2015 is not yet finalised. In 2014, 424 people were seriously injured in a crash involving a heavy vehicle.

Introduction

The *Heavy Vehicle Safety Action Plan 2016–18* presents 31 initiatives across the following six key action areas:

1. safer roads
2. safer vehicles
3. fatigue management*
4. seatbelts
5. safer speeds
6. impaired driving and driver distraction.

* Fatigue is generally included with impaired driving, however, for the purposes of the Action Plan it has a stand-alone focus in the context of heavy vehicle driver fatigue.

These initiatives aim to reduce the number of people killed or seriously injured in crashes involving heavy vehicles. The Action Plan will be delivered by the Queensland Government in partnership with the heavy vehicle industry over the next two years.

These initiatives will play a critical role in helping to achieve the broader objectives of Queensland's ambitious *Road Safety Strategy 2015–21* and *Action Plan 2015–17*, and should be read in conjunction with those documents. In particular, this Action Plan adopts the Strategy's four guiding principles for road safety in Queensland:

1. **The true road toll is broader than fatalities**

   We will expand our understanding of the 'road toll' to all fatal and hospitalised casualties.

2. **We need an ambitious vision with interim targets to inspire and motivate action**

   We will adopt an ambitious long-term vision, supported by interim targets.

3. **Safe System principles are the foundation for action**

   We will entrench the mindset that the whole system must be safe at every level of road safety management, and develop solutions based on evidence and innovation.

4. **Road safety is everyone's issue and everyone's responsibility**

   We will drive a fundamental change in the culture and attitude to road safety.

The *Heavy Vehicle Safety Action Plan 2016–18* was developed by the Heavy Vehicle Safety Working Group of the Ministerial Freight Council. The Working Group is chaired by the Queensland Trucking Association, and includes representatives from the heavy vehicle industry, the Queensland Police Service (QPS), Workplace Health & Safety Queensland (WHSQ), the National Heavy Vehicle Regulator (NHVR) and Transport and Main Roads (TMR).

This Action Plan does not intend to capture every initiative that will benefit heavy vehicle safety in Queensland. However, it is a showcase of the collaborative relationship between the Queensland Government and the heavy vehicle industry, and demonstrates a strong commitment by all parties to address the challenges they face and deliver solutions in partnership.

Heavy vehicle context

Definition

A heavy vehicle in Queensland refers to a vehicle weighing over 4.5t gross vehicle mass (GVM). Registration of a heavy vehicle is determined by the number of axles and vehicle type. In this Action Plan, the term heavy vehicle includes rigid and articulated vehicles, road trains, b doubles and b triples. For the purposes of this document, buses are not in scope and are therefore not included in the actions.

Licences and registrations

As at 31 December 2015:

- there were 526,430[2] people licensed to drive heavy vehicles (15.2% of all current licence holders)
- around 47% of heavy vehicle licence holders were approved to drive heavy rigid (HR) trucks.

In Queensland, 2.3% or 92,873[3] of the total number of motorised vehicles registered in 2015 were heavy vehicles:

- 71,434 or 76.9% were rigid trucks
- 11,006 or 11.9% were articulated trucks
- 10,433 or 11.2% were road trains/b doubles/b triples.

Since 2009, the number of heavy vehicle registrations has increased by 15.6%.

2 Data Analysis Unit, DTMR QLD, extracted 12 January 2016 (unpublished)

3 Data Analysis Unit, DTMR QLD, extracted 12 January 2016 (unpublished)

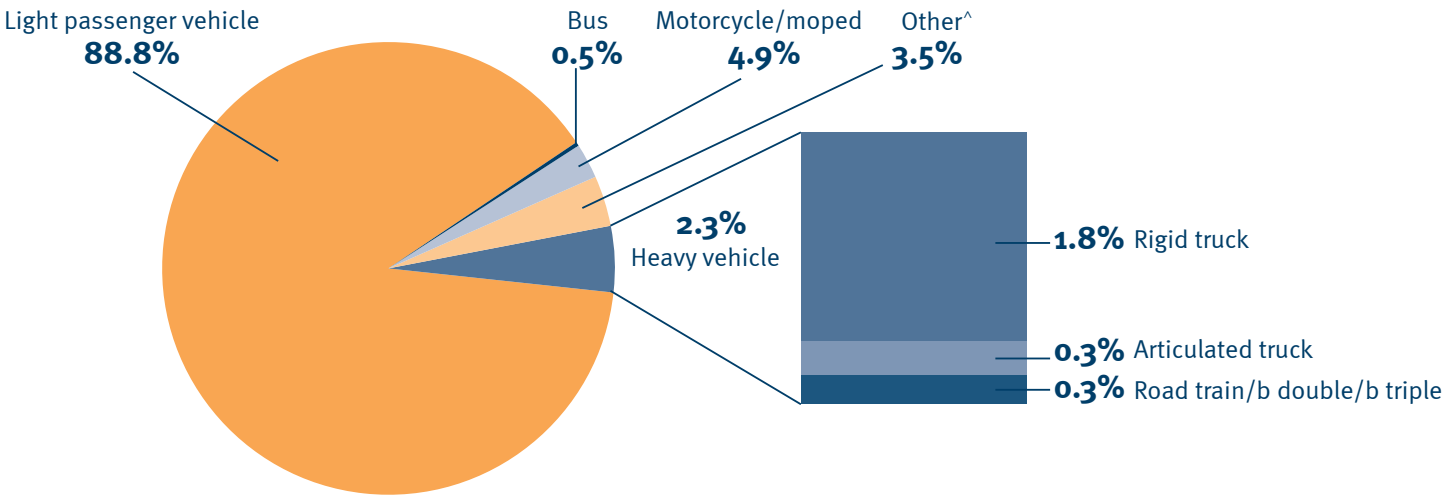
Table 1: Queensland vehicle registrations by vehicle type 2009-2015*

Unit type	2009	2010	2011	2012	2013	2014	2015
Light passenger vehicle	3,092,270	3,151,344	3,226,482	3,326,162	3,417,829	3,486,041	3,561,393
Motorcycle/moped	157,281	159,540	166,922	175,851	184,125	190,283	196,129
Heavy freight vehicle	89,075	88,825	90,034	92,486	94,095	93,618	92,873
Bus	19,864	19,866	20,288	20,957	21,144	21,205	21,189
Other^	111,056	115,774	121,693	128,221	134,052	136,997	139,900
All motor vehicles	3,469,546	3,535,349	3,625,419	3,743,677	3,851,245	3,928,144	4,011,484

* Registrations as at 31 December each year.

^ Includes vehicles types such as conditionally registered vehicles, campervans, motorhomes, mobile machinery and motorised wheelchairs. Dealer plates are not included.

Figure 1: Vehicle types registered in Queensland 2015



Heavy vehicle crashes

In 2015, in Queensland there were 49 fatalities resulting from crashes involving heavy freight vehicles (HFVs), which represents 20.2% of all road fatalities. In 2014, there were 424 hospitalised casualties resulting from crashes involving heavy freight vehicles, which represents 6.5% of all hospitalised casualties[4].

Figure 2 shows trends in fatalities as a result of crashes involving heavy freight vehicles (blue bars), which have broadly followed the trends for fatalities that did not involve heavy freight vehicles (orange line), with the exception of 2012, where there was a higher number of fatalities involving heavy vehicles than would be expected.

4 Detailed hospitalised casualty data for 2015 is not yet finalised.

Figure 2: Fatalities as a result of crashes 2009–2015

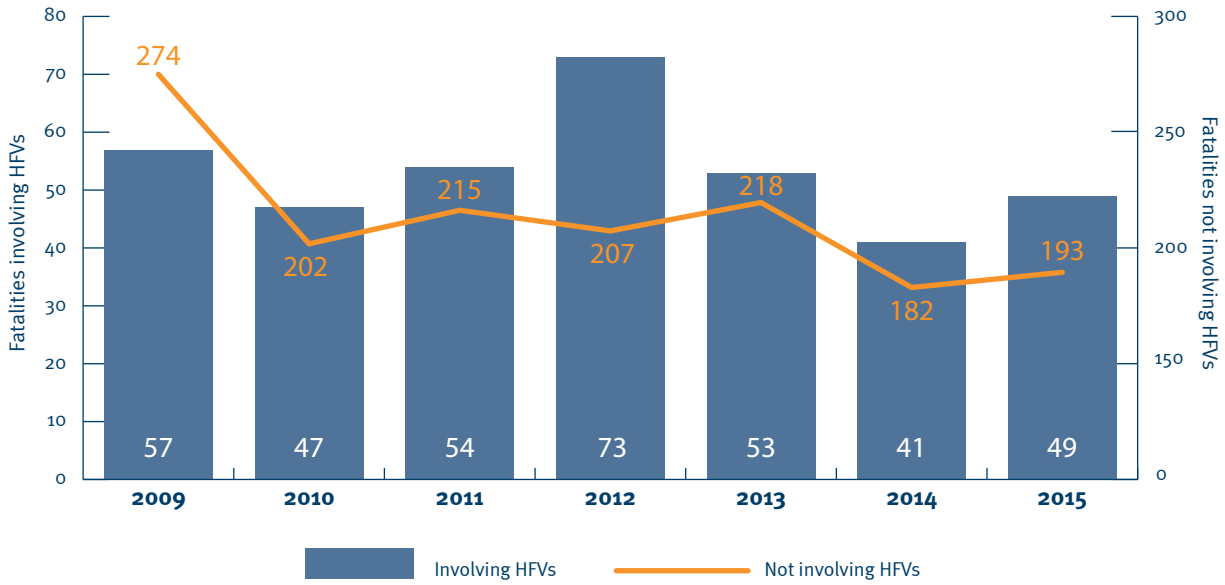


Table 2 shows trends in serious casualties as a result of crashes involving heavy freight vehicles as a percentage of all serious casualties. Serious crashes involving heavy freight vehicles account for around one fifth of fatalities and around 7% of hospitalised casualties.

Table 2: Serious casualties as a result of crashes involving heavy freight vehicles (as a percentage of all serious casualties) 2009-2015

Casualty severity	2009	2010	2011	2012	2013	2014	2015
Fatality	57 (17.2%)	47 (18.9%)	54 (20.1%)	73 (26.1%)	53 (19.6%)	41 (18.4%)	49 (20.2%)
Hospitalised	463 (6.9%)	470 (7.2%)	508 (8.0%)	461 (7.0%)	517 (7.4%)	424 (6.5%)	na
Serious casualty	520 (7.4%)	517 (7.7%)	562 (8.4%)	534 (7.8%)	570 (7.9%)	465 (6.9%)	na

Sharing the responsibility with the heavy vehicle industry

Unlike most light vehicle drivers, the majority of heavy vehicle drivers operate under management supervision. Effective supervision of drivers and the vehicle fleet requires active and systematic management to ensure compliance with regulations. Government and industry increasingly work together to provide information on best practice to ensure both regulatory compliance and safety practices are above and beyond compliance.

Enforcement and compliance activities are intended to ensure all freight companies and drivers comply with fundamental safety requirements, ranging from driver medical conditions and other qualifications, driver compliance, vehicle condition, driver fatigue, speed and general road rule compliance. Enforcement activities lay the foundation for ensuring a safe industry, by identifying unsafe companies and drivers and encouraging compliance.

Educational approaches complement enforcement and can address safety practices not related to compliance. Often these initiatives are most effective if they are conducted in partnership with industry. Potential activities include distribution of safety-related publications (brochures, manuals, bulletins, etc.), seminars and workshops for drivers and safety managers, and seminars or other special sessions for drivers on topics relevant to their jobs.

Transport and Main Roads compliance officers also provide information to industry enabling them to be more proactive about safety and compliance.

Making it happen

This Action Plan will help to implement and track progress in the short to medium term. It will be championed by the key road safety agencies within government, the Department of Transport and Main Roads and Queensland Police Service, and the heavy vehicle industry.

Monitoring performance

Regular monitoring and reporting on progress in road safety is critical to building momentum, interest and enthusiasm, improving and sharing understanding about the problems and solutions, and ensuring that a ‘results focus’ is maintained.

The progress of implementing this Action Plan will by monitored by the Heavy Vehicle Safety Working Group, with progress reports produced every six months.

Actions for 2016–18

Action Area 1: **Safer roads**

Infrastructure improvements can influence crash outcomes in two ways. Firstly, general investment in roads improves the overall quality of the network, which has obvious road safety benefits. Secondly, expenditure on safety focused improvements such as shoulder sealing, increasing the number of overtaking lanes, wide centre lines, median barriers and intersection treatments directly reduce road trauma by reducing the potential for conflict and creating infrastructure that is more forgiving when crashes occur. All road users will benefit from these types of initiatives.

PRIORITY: Identify and correct unsafe road infrastructure and operational characteristics		
#	**Description**	**Lead & partners**
1	The development of a single guideline to assist TMR officers in assessing the suitability of roads proposed for the operation of high productivity vehicles. This will simplify the route assessment process, develop new methodology and tools to assess road safety issues like overtaking provision and enable more efficient and robust route classifications.	TMR NHVR
2	Undertake a Performance Based Standards route audit, to evaluate road safety and efficiency of the longer (30m) vehicles travelling on the Port of Brisbane to Toowoomba route.	TMR NHVR
3	Develop a 'toolbox' for road owners/managers for assessing routes for High Productivity Vehicles. This will provide a set of available tools for the geometric assessments of routes ensuring that a road meets all the safety and other requirements before approving it for heavy vehicles.	TMR Industry NHVR
4	To reduce the potential for head-on crashes involving heavy vehicles, continue the roll out of wide centre line treatment on the Bruce Highway and other state-controlled roads.	TMR Fed Gov
5	Undertake analysis to determine whether particular road features, such as pavement width or curve radius (tightness of curves) of the road, have a higher incidence of heavy vehicle crashes.	TMR
6	Investigate the need for additional emergency stopping bays in areas where there are long sections of road.	TMR Industry

Action Area 2: **Safer vehicles**

Heavy vehicles registered in Queensland generally accumulate high mileage. In 2014, articulated trucks averaged 90,600 kilometres per year, compared with only 21,700 kilometres per year for passenger vehicles. It is therefore paramount that the heavy vehicles are as safe as possible.

Many aspects of heavy vehicle safety are influenced primarily by industry. One such safety element is vehicle safety design. Improved heavy vehicle safety designs and technologies can help drivers (i.e., heavy vehicle drivers or other drivers sharing the road with heavy vehicles) avoid crashes, prevent injuries or may enhance occupant survivability in a crash.

Manufacturers play a critical role in determining vehicle safety design through standard and optional safety equipment installed in their vehicles. Advances in heavy vehicle safety technologies have significantly contributed to a decline in deaths and injuries on the roads. An increasing number of heavy vehicles are being fitted with traction control, Intelligent Speed Adaptation (ISA), and Anti-locking Braking Systems (ABS). Electronic Stability Control (ESC), which is available in the majority of new cars, is not mandatory in heavy vehicles yet, but when it is introduced, it is reasonable to assume will result in significant safety gains.

Additionally, there are several important areas in which the design of heavy vehicles could improve the safety of heavy vehicle drivers or other road users. They include seatbelt design, driver fatigue monitoring, blind spot assist cameras, improved cabin strength and front, rear, and side underrun barriers. Where practical, retro-fitting safety equipment to vehicles in the existing fleet can help prevent workers falling when accessing and maintaining vehicles. Risks to workers and other road users can be minimised by good design. For example, the design associated with coupling and de-coupling trailers.

Newer heavy vehicles typically embrace the most current safety technologies. Transport and Main Roads can actively influence the uptake and change-over to newer heavy vehicles through facilitation of Performance Based Standards (PBS) heavy vehicles and associated road network access for these vehicles.

Heavy vehicle inspection programs and roadside inspections invariably identify sizeable proportions of heavy vehicles that need to be taken out of service immediately because they are considered too hazardous to continue operating. In-depth inspection of heavy vehicles in fatal crashes indicates that about one-third would have been removed from service if inspected just prior to the crash.

PRIORITY: Improve maintenance and adopt safer technology for heavy vehicles		
#	**Description**	**Lead & partners**
7	Actively participate and advocate for advances in safer heavy vehicle technology as a member of multi-jurisdictional vehicle standards groups, including groups involving representatives from the heavy vehicle industry.	TMR Industry NHVR
8	Provide information to industry regarding changes to Australian Design Rules, industry innovations, technological advances and research findings that promote heavy vehicle safety.	TMR NHVR Fed Gov WHSQ
9	Circulate regular advice to communicate the importance of fleet safety and improve the uptake of safer vehicles in commercial (heavy vehicle) fleets.	TMR
10	Actively facilitate the increased use of Performance Based Standards heavy vehicles and associated road network access.	TMR NHVR
11	Continue conducting rigorous audits of operators accredited under the National Heavy Vehicle Access Scheme, with the frequency of audits based on risk.	TMR
12	Encourage and expand the use of vehicle telematics where circumstances permit, and investigate further avenues to utilise technology to direct compliance effort in relation to heavy vehicle standards issues.	TMR
13	Develop systems for improved coordination and monitoring of over-dimensional heavy vehicle movements using emerging technologies.	TMR

Action Area 3:
Fatigue management

Driver fatigue is associated with an increased risk of crashing and road trauma. It is important to address both symptoms and causes when proposing solutions to manage fatigue. Heavy vehicle drivers may be at greater risk of fatigue-related crashes due to the nature of their work hours (e.g., night shifts and long working hours), their work conditions (e.g., stress, monotony), and their lifestyle and general health.

Fatigue is a concern particularly with regard to drivers of articulated trucks because on average, these vehicles travel much further distances than all other vehicle types[5]. Fatigue-related crashes typically have little or no avoidance manoeuvres and due to the size of trucks involved (meaning there is a greater force transfer during crashes), the severity of fatigue-related heavy vehicle crashes is greater than for any other vehicle type.

Fatigue results in performance impairment, inattention and reduced reaction times. Vehicle control variables including lane and steering control are also likely to be impaired due to fatigue. The effect of fatigue on driving performance is well documented and has been compared to alcohol related impairment. On-road fatigue can have detrimental effects on the safety of workers and others during in-transit welfare checks, when undertaking unplanned maintenance and at delivery points. The overall effects of fatigue should be considered when implementing systems to manage fatigue-related risks.

PRIORITY: Reducing fatigue-related crashes		
#	**Description**	**Lead & partners**
14	TMR to conduct an audit of rest areas to determine where improvements are needed so that all rest areas on state controlled network meet fatigue management needs.	TMR
15	Ongoing installation of audio tactile line markers and wide centre lines where appropriate on state controlled roads.	TMR
16	TMR to work with the heavy vehicle industry to identify log book compliance issues and using this information, develop appropriate actions.	TMR Industry
17	Continue to upgrade rest areas on state controlled roads to assist with fatigue management.	TMR
18	TMR to continue to actively contribute to the successful national implementation of electronic work diaries.	TMR
19	Investigate technology to assist with fatigue detection.	TMR QPS Industry WHSQ

5 According to the Australian Bureau of Statistics Survey of Motor Vehicle Use for the 12 months ended 31 October 2014 (ABS cat. no. 9208.0), the average kilometres travelled by articulated trucks registered in Queensland (90,600km p.a.) is seven times that of passenger vehicles (12,800km p.a.), and four times that of rigid trucks (21,700km p.a.), who travel 1.7 times that of passenger vehicles.

Table 3: Heavy freight vehicle occupant fatalities by restraint use 2009-2014

Year	All HFV occupant fatalities	Restraint use known	Restrained		Unrestrained	
			no.	%	no.	%
2009	15	8	3	37.5%	5	62.5%
2010	5	2	0	0.0%	2	100.0%
2011	12	5	1	20.0%	4	80.0%
2012	10	6	5	83.3%	1	16.7%
2013	6	4	2	50.0%	2	50.0%
2014	10	3	0	0.0%	3	100.0%

Table 4: Heavy freight vehicle occupant hospitalised casualties by restraint use 2009-2013

Year	All HFV hospitalised casualties	Restraint use known	Restrained		Unrestrained	
			no.	%	no.	%
2009	119	87	75	86.2%	12	13.8%
2010	126	86	76	88.4%	10	11.6%
2011	170	105	90	85.7%	15	14.3%
2012	163	115	105	91.3%	10	8.7%
2013	182	120	114	95.0%	6	5.0%

Action Area 4: **Seatbelts**

Low seatbelt wearing rates among truck drivers continue to be of concern with around 40 unrestrained drivers killed each year in Australia. The National Transport Commission (NTC) has estimated that the number of unrestrained heavy vehicle driver fatalities would be reduced by 45% if their rate of seatbelt wearing matched that of light vehicle drivers and passengers. Research shows that drivers not wearing a seatbelt at the time of a crash were 7 times more likely to be killed[6].

As shown in Table 3 and 4 above, in Queensland on average over the last five to six years, 60.7% of heavy freight vehicle occupant fatalities and 10.3% of heavy freight vehicle occupant hospitalised casualties were unrestrained.

PRIORITY: Increase the rate of seatbelt usage amongst heavy vehicle drivers		
#	**Description**	**Lead & partners**
20	Identify why some heavy vehicle drivers do not wear seatbelts and develop options on how this can be addressed.	TMR
21	Promote the use of seatbelt wearing warning devices in heavy vehicles through engagement with the heavy vehicle industry.	TMR
22	Implement management practices to ensure seatbelt wearing by all heavy vehicle drivers.	Industry TMR

6 The National Transport Commission (NTC) sourced from the Australian Transport Safety Bureau

Action Area 5: **Speed**

Speed increases the risk of a crash occurring by lengthening stopping distances, increasing the risk of losing control on curves or during emergency manoeuvres, and decreasing vehicle stability. It also increases the severity of a crash by intensifying the physical forces of the impact.

PRIORITY: Target speed		
#	**Description**	**Lead & partners**
23	Investigate opportunities for data exchange with stakeholders to assist with enforcement and compliance activities (e.g., speed).	TMR QPS
24	Promote the use of guidelines and other documents (e.g., Commercial Vehicle Industry Association of Queensland (CVIAQ) guideline on the maintenance of speed limiters (Australian Design Rule 65)) where there is a road safety benefit.	TMR Industry
25	Encourage the heavy vehicle industry to include safe road user behaviours for drivers (e.g., use of seatbelts, mobile phones, speeding) in commercial contracts.	TMR Industry
26	Investigate technologies for detecting speed limiter tampering.	TMR QPS
27	Continue issuing warning letters to operators whose vehicles are detected exceeding the speed limit by more than 15km/h using telematics.	TMR QPS

Action Area 6: **Safer road users**

Government and industry will enhance programs to reduce the impact of fatigue, stimulants, alcohol and other drugs on road crashes, particularly those involving heavy vehicle drivers. The NTC estimates that reduced heavy vehicle driver impairment could contribute about 18% of the potential reductions in fatalities. Drug use by heavy vehicle drivers is an issue of concern, which is being addressed through roadside drug screening.

Of particular concern is that:

- Of the heavy vehicle drivers that tested positive for drugs, 84% of those aged between 30 and 49 tested positive for methamphetamines[7].
- 17% of repeat drug driving offenders are heavy vehicle drivers.
- 7.5% of drivers who had a positive drug test were heavy vehicle drivers.

PRIORITY: Impaired driving		
#	**Description**	**Lead & partners**
28	Promote the introduction of company drug policies that clearly set down the obligations of management and drivers in relation to drug use. Peak industry bodies to foster this policy in industry accreditation schemes to eliminate drug use in the workplace.	Industry TMR
29	Adopt the WHSQ *Framework for alcohol and drug management in the workplace*.	Industry WHSQ
30	Expand the Queensland Police Service roadside drug testing program.	QPS TMR

Research[8] shows using a mobile phone while driving can be as risky as drink driving. However, unlike drink driving, a distracted driver consciously decides not to pay attention to the road – placing themselves and others at risk. Using a mobile phone while driving is highly distracting and can increase the risk of a serious crash by up to four times.

Employers are in the best position to limit their employees' exposure to distracting activities while using company vehicles. Companies should ensure they have implemented sound risk management processes that consider the role of human factors in vehicle related incidents by incorporating known risk factors in workplace risk assessments.

There are four main types of distraction identified in road safety literature: visual (e.g., looking away from the road); auditory (e.g., answering the phone); physical or manual (e.g., adjusting the heater controls) and cognitive (e.g., day dreaming).

Distraction can originate from a range of sources that are external (e.g., other vehicles, animals, advertising or external events) or internal (e.g., smoking, moving objects, eating/drinking or using devices like mobile phones or GPS) to the vehicle. Regardless of where the distraction comes from, or what type of distraction is occurring, the effects are a decrease in performance of the driving task, following too close, problems with keeping course, more errors, and narrower visual focus.

Distracting activities of a visual/physical nature, such as dialling a phone number, are associated with higher crash risk among both car drivers and truck and bus drivers. These tasks require drivers to glance away from the road for a longer time, thus hindering their ability to deal with unexpected events.

PRIORITY: Driver distraction		
#	**Description**	**Lead & partners**
31	Industry to provide information to employees on the effects of distracting technologies such as mobile phones, tablets and other portable communication devices.	Industry TMR

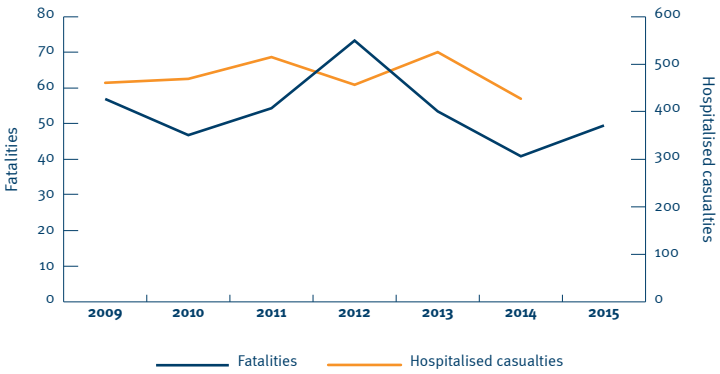
7 QPS Statistical Services, Published 2014

8 White, K.M., Walsh, S.P., Hyde, M.K., & Watson, B.C (2010). Mobile phone use while driving: An investigation of the beliefs influencing drivers' hands-free and hand-held mobile phone use. Transportation Research Part F: Traffic Psychology and Behaviour, 13, 9–20.

Attachment A – Heavy freight vehicle crash statistics

- During 2015, there were 49 road fatalities as a result of crashes involving heavy freight vehicles which represents 20.2% of the road toll. This is eight (or 19.5%) greater than the previous year and five (or 8.6%) fewer than the previous five year average.
- Of the resulting fatalities, 13 (or 26.5%) were heavy freight vehicle drivers, four (or 8.2%) were heavy freight vehicle passengers and 32 (or 65.3%) were other road users.
- During 2013, there were 517 hospitalised casualties as a result of crashes involving heavy freight vehicles which represents 7.4% of all hospitalised casualties. This is 56 (or 12.1%) greater than the previous year and 41 (or 8.0%) greater than the previous five year average.
- Of the resulting hospitalised casualties, 166 (or 32.1%) were heavy freight vehicle drivers, 16 (or 3.1%) were heavy freight vehicle passengers and 335 (or 64.8%) were other road users.

Figure 3: Fatalities and hospitalised casualties involving heavy freight vehicles 2009-2015



Analysis of five-year trends in heavy freight vehicle drivers involved in fatal and hospitalisation crashes in Queensland shows:

- Nearly all drivers were male, with 100% for fatal crashes and 98.1% for hospitalisation crashes.
- Heavy vehicle drivers were less likely to be at fault in fatal crashes (40.2%), however the at-fault rate for hospitalisation crashes was around 60.0%.
- Over half the drivers involved were aged between 40 and 59 years for both fatal and hospitalisation crashes.
- 93.2% of drivers involved in fatal crashes and 97% of drivers involved in hospitalisation crashes were Queensland licence holders, with around 95% of drivers holding an open licence.
- Drivers disobeying road rules was the greatest contributor for fatal (20.9%) and hospitalisation crashes (34.6%).
- Small proportions of drivers involved in fatal crashes had alcohol/drugs (5.0%), fatigue/fell asleep (2.5%) and vehicle defects (2.5%) attributed to them.

Analysis of five-year trends in characteristics of fatalities and hospitalised casualties as a result of crashes involving heavy freight vehicles shows:

- 73.1% of fatalities and 68.2% of hospitalised casualties were the result of multi-vehicle crashes, with 38.4% of fatalities resulting from head-on crashes and 23.4% of hospitalised casualties resulting from rear-end crashes.
- Most fatalities and hospitalised casualties occurred within 100–110 km/h speed limits.
- Over 80% of fatalities and almost 70% of hospitalised casualties occurred along state-controlled roads.
- 12pm to 4pm was the most common time with 24.3% of fatalities and 30.5% hospitalised casualties occurring during these times.
- 44.6% of hospitalised casualties occurred within major cities, whereas 68.3% of fatalities occurred in regional areas.
- 79.1% of fatalities and 88.2% of hospitalised casualties occurred on weekdays.