

# **Uneven Wear:**

## **Health & Wellbeing of Professional Truck Drivers**

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**Driving Health Qualitative Study**

**November**  
**2020**

**This report would not be possible without the contribution of the professional truck drivers and family members who agreed to be interviewed. Thank You!**

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This report uses data collected as part of an online survey. Receipt, use and disclosure of the data for this study was approved by Monash University Human Research Ethics Committee (MUHREC) on 12 June 2019 (Project ID:19191).



“

We have lives, and we have dreams and aspirations, just like everyone else — but we're treated as bottom feeders.

“

“

If the industry, the general public and the government want things to change for the better — we've got to change the culture. We've got to reconnect drivers with their families and loved ones.

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# Executive Summary

*“You [are] a transport driver, and that’s what I am. I’m not a truck driver, I’m a transport driver. I am a professional driver and I’ll always consider myself that.”—Int 14 Driver*

Truck driving is the most common male occupation in Australia, with an estimated 1 in every 33 male workers being a professional truck driver. The industry is known for long working hours, social isolation, higher exposure to traffic conditions and risk, substance use, lack of exercise, poor diet, low pay, fatigue, lack of job control, and high job demands.<sup>[1]</sup> So far, the Driving Health study has shown that professional truck drivers are at greater risk of injury and death at work, experience delays in treatment (particularly for mental health conditions), and don’t always receive evidence-based care when it comes to medications.<sup>[1, 2, 3, 4]</sup>

The primary aim of this component of the Driving Health project was to identify and explore the factors influencing and promoting health and wellbeing for truck drivers from their perspective and that of their family. A further aim was to explore possible interventions that could promote better health from the truck driver’s perspective. This report is based on interviews with 17 professional drivers and 9 family members of drivers, conducted between March and August 2020. Transcripts were analysed to determine the main factors and themes impacting physical and mental health, along with recommendations drivers and family members proposed to improve health.

The findings identified seven categories of factors that influence professional truck driver health and when they are balanced, can promote wellbeing. These were:

- A. Physical health:** Level of health, medical conditions, injuries, pain, diet, activity, sleep.
- B. Mental health:** Coping mechanisms, response to stress, willpower.
- C. Relationships:** Level of connections, children, extended family, friends, support from others.
- D. Work conditions:** Workplace culture, treatment from managers, support through companies.
- E. Regulations:** Policies, fatigue management guidelines, logbooks, permits/rosters.
- F. Environments:** Roads, parking bays, trucks, access to healthy food, access to facilities.
- G. Attitudes:** Public perception of drivers, bravado, not talking about mental health.

Further to the categories of factors impacting wellbeing, six themes emerged from the interviews, each with related sub-themes. Two of these enabled or supported health and wellbeing:

1. Connections supporting mental health: including family, friends and for seeking help.
2. Coping methods: including mindset and mental toughness, locus of control and being able to “appreciate the moment”.

Four themes were identified that disrupted or were a barrier to health and wellbeing:

3. Unrealistic demands: including a lack of control and flow on effects.
4. Financial pressures: including unpaid waiting time and market competition.
5. Lack of respect and recognition: including not being appreciated by the public or management
6. Compromised support systems: including the macho male mentality, transferring stress, regret, guilt and trade-offs, dealing with isolation and constant transitions.

Using the study findings, the project team developed the Driver Wellbeing Wheel [Figure 1]. This is a model that conceptualises the factors influencing driver health and wellbeing. It is possible to score each category, from 0 (as poor as it could be) to 10 (best it can be), to visualise how each category impacts a driver from their unique perspective.

When there is balance across each category, the wheel will roll smoothly [Figure 2]. However, when categories are out of balance it will be like the driver is driving on a flat tyre [Figure 3]. This approach may be useful in identifying supports required for individual drivers, or for employers identifying where best to use their resources to support driver health and wellbeing.

Figure 1

Driver Wellbeing Wheel identifying the 7 categories that impact their health and wellbeing. Scoring each category out of 10 will help to identify when there is a balance or whether the driver is running on a 'flat tyre'.

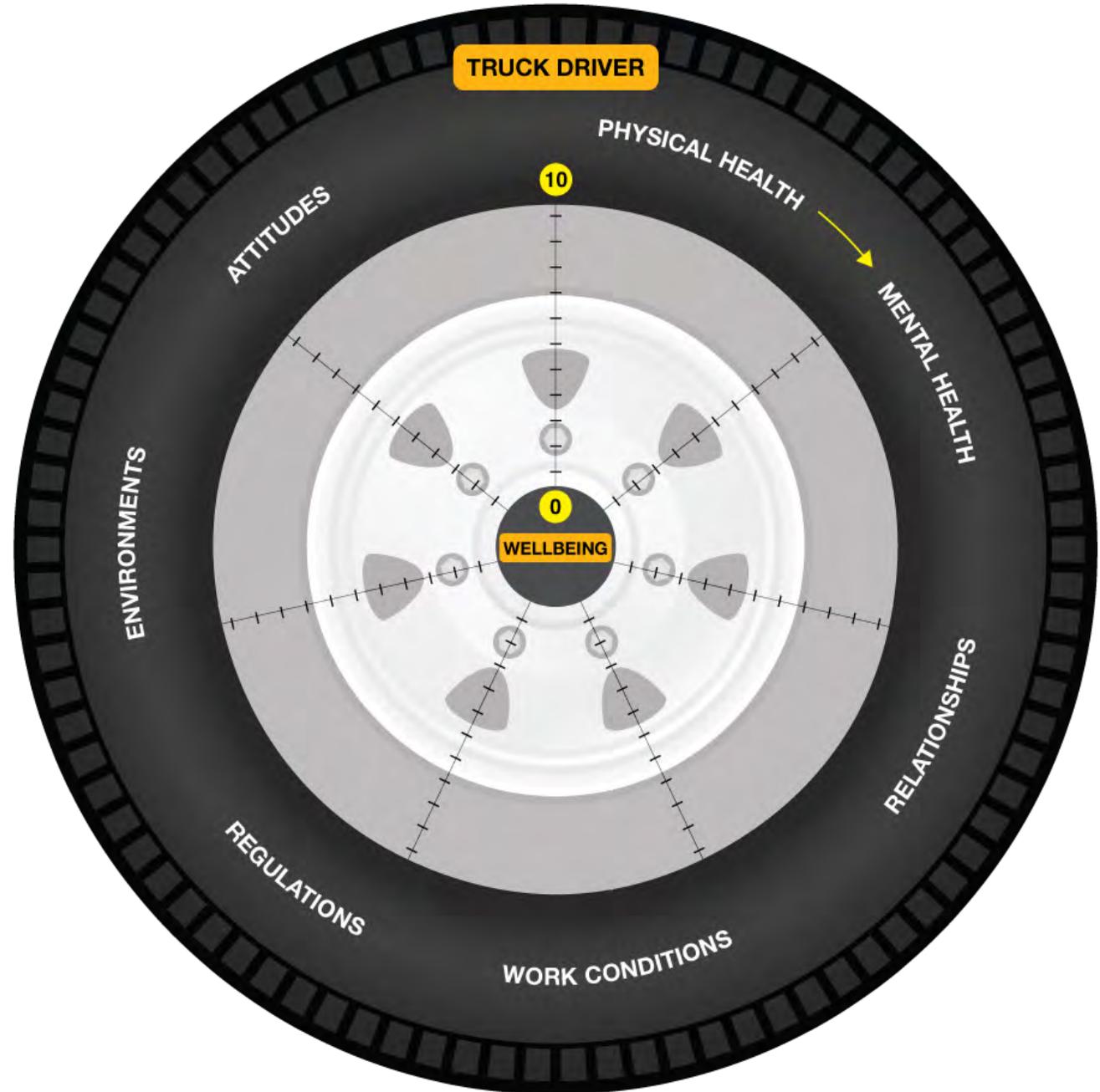


Figure 2

Driver Wellbeing Wheel scored experience as having a balance across each of the 7 categories.

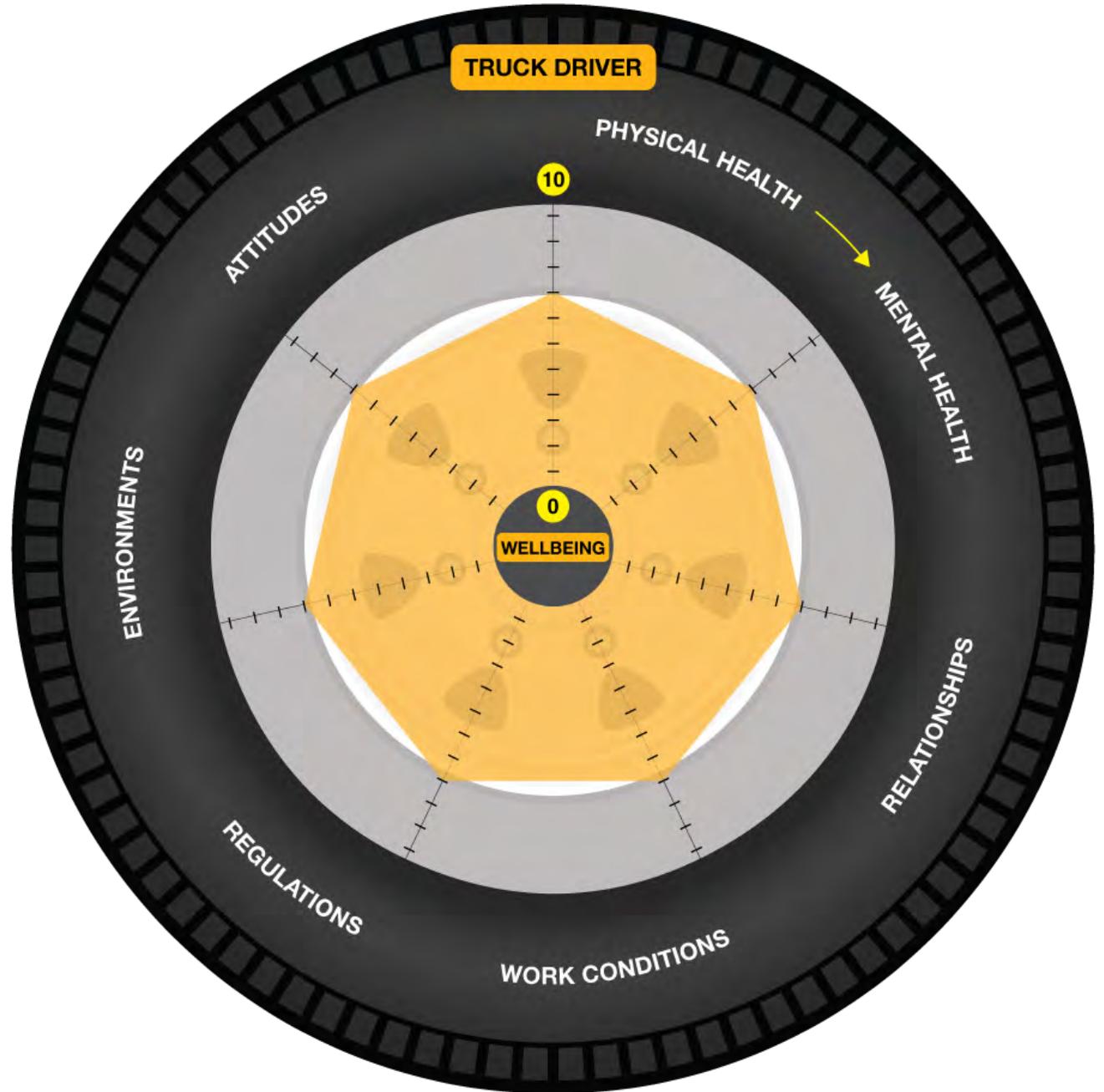
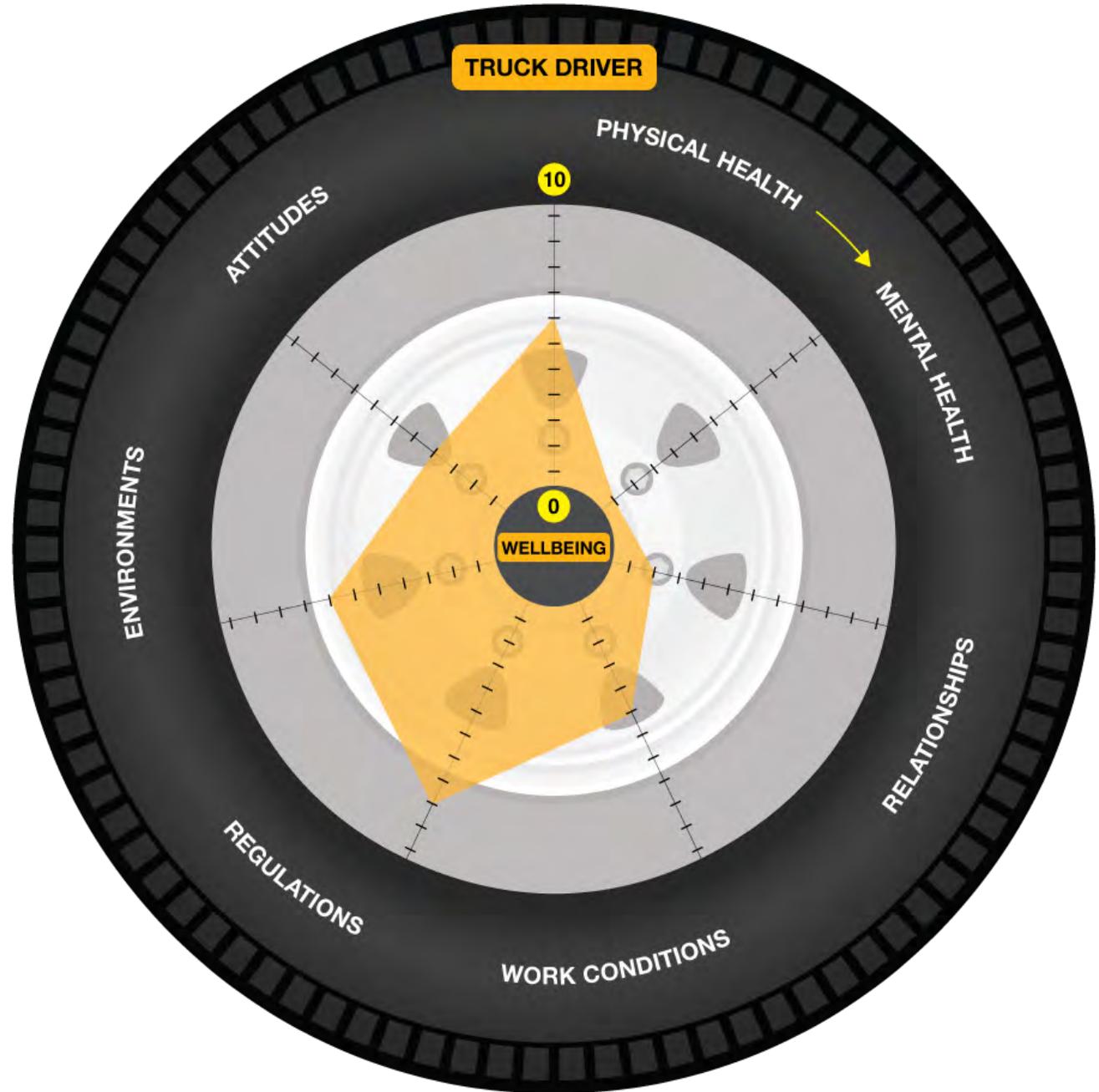


Figure 3

Driver Wellbeing Wheel indicating an imbalance or uneven wear across the 7 categories. This scoring identifies that mental health and relationships as the first priority to address, with work conditions and attitudes as the next priority. The uneven wear on this wheel means it will need replacing much sooner, much like a driver's wellbeing and performance requiring intervention sooner.



The complexity of the categories and themes identified in the interviews confirm that no one simple change will provide the answer to improving and supporting the physical and mental health of professional truck drivers. Based on the information provided by drivers and family members, six potential solutions were proposed:

1. Coping and self-management strategies
2. Specialised expertise for physical and mental health support
3. Strategies for better sleep
4. Healthy food options on the road
5. Public education programs
6. Protection for whistle blowers

Further work is required to identify the extent to which such solutions currently exist, how they may be implemented and who would be responsible for their introduction into the industry.

The next steps of the Driving Health project will synthesise the findings of this report with other components of the Driving Health study to further identify and describe opportunities to intervene to improve the health of drivers.

Driver health and wellbeing is a complex phenomenon, and any intervention aiming to improve the health of drivers needs to be designed with input from all stakeholders in the industry, including drivers, employers and regulators, using a multi-level systematic approach.

# Background

International evidence of risk and protective factors for truck driver health has emerged over the past decade. A recent systematic review of North American studies reported that long-haul truck drivers have multiple risk factors (e.g. smoking, obesity, hypertension, poor diet, stress) that can lead to various medical conditions (cardiovascular disorders, diabetes) and that these are all associated with increased crash risk.<sup>[5]</sup> This review also identified some major gaps in knowledge, including a lack of data in short-haul (city) drivers in which job design differs substantially from long-haul drivers, potentially resulting in a different profile of health risks and outcomes. Several qualitative studies have explored truck driver health in Canada, Iran and the Netherlands, however none have explored the in-depth experience of drivers in Australia.

The qualitative study conducted in Canada (n=16 drivers, n=10 managers) explored lifestyle issues and disease risk factors perceived by truck drivers and managers.<sup>[6]</sup> Four major themes emerged indicating that,

1. Stress;
2. Workplace and communication;
3. Lifestyle culture and family dynamics; and
4. Fatigue all contribute to health concerns and risks.

Due to the 'lone worker' position of most truck drivers and the disruption of long-haul versus short-haul assignments to normal routines, these complex influencing health factors are difficult to address.

Another qualitative study in Iran (n=18) explored the understanding and experiences of truck drivers in relation to traffic accidents.<sup>[7]</sup> The primary emergent theme contributing to accidents was identified as the lack of driver ability to control stress, however they also reported the complex nature of other influencing factors, such as

1. Poor job organisation;
2. Lack of proper equipment and facilities; and
3. An unsupportive work environment.

These factors created a complex interplay which increased stress, exacerbated pressure to meet unrealistic deadlines and overall increased the likelihood of crashes.

A further qualitative study (n=20) in the Netherlands <sup>[8]</sup> was conducted to obtain a better understanding of truck drivers' perception of health and lifestyle factors, and explore strategies to overcome the barriers to changing poor health. The findings described truck drivers as having an 'unproductive association with concepts of healthy living', and a tendency to 'downplay' their health risks. This potentially led to ignoring signs of ill-health, and an attitude of 'live for today' rather than prevent or intervene with health issues early to decrease the negative impact in later life. Recommended future research from that study indicated a need to verify these findings and also test multi-stakeholder approaches to address the complexity of health issues and attitudes.

Boeijinga et al., (2016) identified that drivers conceptualise their wellbeing from a lens of health status and enjoyment, both of which are frequently at odds with each other and thereby creating tension. Further research is required to confirm the relevant influencing factors for Australians and to ascertain effective strategies to reduce the health risks associated with truck driving.

There is currently limited research evidence within Australia on the health and wellbeing of transport workers, including truck drivers. Phase 1 of the Driving Health study conducted by Monash University, identified that road crashes accounted for 77% of work-related fatalities among Australian truck drivers over the past 12 years, but only 17% of the burden of disability.<sup>[2]</sup> A diverse range of conditions including back pain, mental illness and hearing loss were responsible for the remaining 83% of the burden of injury and illness. Although some of the influencing factors have been identified in this study (e.g. hours of work, health conditions), the implications and interactions of work and lifestyle factors have not yet been explored.

There is also limited understanding regarding the interaction between health factors for truck drivers from their or their family's perspective, with minimal identification of effective interventions to address these health factors for the truck drivers.<sup>[1]</sup> Therefore, this grounded theory qualitative study aimed to explore driver's perspectives in more detail to understand the interactions of work and other factors and how they impact truck driver health.

# Objectives

The objectives of this study were to:

1. Identify and explore the factors influencing and promoting health and wellbeing for truck drivers from their perspective and that of their family.
2. Identify what solutions could positively impact truck driver health and wellbeing from the perspective of drivers and their family.

# Methods

This study used a grounded theory qualitative design and is a standalone study in the Driving Health suite of projects (Ethics approval 19191). Ethical approval for this qualitative study was gained through Monash University Health Research Ethics Committee (Ethics approval 23388).

## Participants

This study involves two groups of participants:

1. Professional truck drivers
2. Family members related to a truck driver

We aimed to have a breadth of participants where possible e.g. gender diversity (approximately 2% of truck drivers are female nationally), short- and long-haul drivers (under or over 500 kms per day), owner operator and employee drivers, new to truck driving and experienced, age and state diversity across Australia.

### Inclusion criteria for drivers:

- Age  $\geq$  18 years
- Self-described truck driver
- Able to answer questions in conversational English

### Inclusion criteria for family members:

- Age  $\geq$  18 years
- Self-identified family member — living with a truck driver
- Able to answer questions in conversational English

## Recruitment

There were three strategies to recruit truck driver participants:

1. Snowball sampling method. Contacting the drivers who had completed the online Driving Health survey, who indicated as part of the survey they were interested in providing more in-depth information for the study. Interested drivers were encouraged to contact the research team either through email or the [Driving Health website](#). Drivers were encouraged to spread the word about the study to their peers.
2. A social media campaign through Facebook and Twitter, and information also placed on the study website to encourage participants to contact the research team.
3. Advertising through the Study Partner networks via emails and flyers, encouraging participants to contact the research team.

The aim of using these three strategies simultaneously was to seek a heterogenous sample and reduce the potential of selection bias from only one population source. Sharing the information on Facebook and Driving Health website also increased the visibility of the study to a large number of drivers and employers who were already aware of, or had participated in the parent study. Study Partners supported involvement by disseminating information at all stages and encouraging participation.

Recruitment of family members was done in three ways:

1. When interviewing a truck driver, enquiring whether a family member may be interested in being part of the study.
2. Information placed on the study website identifying that we were interested in talking with family members about the health impacts of truck driving on them and the family.
3. Information included in company newsletters and sent out through Study Partners.

All participants provided written consent to participate in the interviews.

## Data Collection

Up to 25 participants were to be recruited for a 45–60 minute telephone or videoconference interview. Interviews were audio recorded and typed verbatim using an external professional service. Draft semi-structured questions for drivers [[Appendix I](#)] and family members [[Appendix II](#)] were created by the investigator team.

Participant demographics for professional truck drivers were captured, including gender, age bracket, worked short or long-haul, whether they were an owner, owner driver or employee driver, state or territory they live and work in, size of truck, freight carried, previous workers' compensation claims, and number of years driving.

## Analysis Strategy

Interview transcripts were analysed using Nvivo software by researchers with expertise in interview analysis (EP and LW). Initial coding and thematic analysis were performed by EP including open, axial and selective coding with thematic analysis to determine emergent themes.<sup>[9, 10]</sup> Memos were created by the primary coder (EP) throughout the analysis process, and used as a mechanism to create meaning from the data as per grounded theory processes. Factors from the interviews were grouped into categories to clarify the complex relationships between them. Key themes were then overlaid across the categories to enable understanding of the interactions. This study design allows for the emergent theory to be grounded in the actions, interactions and social processes identified in the previous components of the Driving Health study and from the data collected from driver and family member interviews.

A 10% independent coding cross-check of data (3 interviews; 2 drivers and 1 family member) was carried out by the second researcher (LW) to compare coding accuracy and improve the robustness of the analysis. Triangulation was done through member-checking of initial emergent themes with 10% of participants. Emergent themes, recommendations and theory arising from the study were presented back to the randomly selected participants to check that the findings reflect accurately the information they provided. If the participants were not in  $\geq 75\%$  agreement with the recommendations, the theory model would be revisited and represented back to them after changes had been made. If they agreed with recommendations, then these would remain and be published. The model was also presented to the Driving Health Industry Advisory Group.

# Research Findings

A total of 26 interviews were completed, 23 by phone, and 3 via videoconference. Interviews ranged from 28 minutes to 67 minutes, with an average of 52 minutes across the whole cohort and an average of 55 minutes for drivers, and 48 for family members. A total of 22.15 hours of interviews were captured.

## Descriptive Statistics

Seventeen truck drivers (16 male) and nine family members were interviewed (100% female, 78% wife or partner (n=7), 22% mother (n=2)) [Table 1]. Drivers were spread across all seven Australian states and Territories. The family members were situated across NSW (2), QLD (4), SA (1) and VIC (2). Two were family members of the drivers interviewed, and the others were not.

The range of driver experience was reported from 4 to 58 years with 25 years as the average. The size of the companies they worked for or owned ranged from five vehicles to hundreds, single state to multistate. The types of freight carried included food and produce, chemicals, building supplies, vehicles and fertiliser. The size of the trucks being driven included single semitrailer (n=6), B Double (n=9), double tanker (n=1), and triple train (n=1).

**TABLE 1 DESCRIPTIVE DEMOGRAPHICS OF THE PROFESSIONAL TRUCK DRIVERS INTERVIEWED**

		Number (%)
<b>Age</b>	25–34	1 (6)
	35–44	4 (24)
	45–54	5 (29)
	55–64	4 (24)
	65 and over	3 (18)
<b>Gender</b>	Male	16 (94)
	Female	1 (6)
<b>State/Territory</b>	WA / NT	2 (12)
	QLD	4 (24)
	NSW	3 (18)
	VIC	5 (29)
	TAS	1 (6)
	SA	2 (12)
<b>Driving distance Short/long haul</b>	< 500 kms daily (Short-haul)	6 (35)
	> 500 kms daily (Long-haul)	11 (65)
<b>Claim (previous)</b>	Yes	5 (29)
<b>Experience</b>	1–10 years	3 (18)
	11–20 years	3 (18)
	21–30 years	6 (35)
	31–40 years	3 (18)
	41 + years	2 (12)
<b>Employment status</b>	Owner	1 (6)
	Owner Driver	3 (18)
	Employee Driver	13 (76)

WA/ NT Western Australia / Northern Territory; Qld Queensland; NSW New South Wales; VIC Victoria; TAS Tasmania; SA South Australia.

## Categories of Factors Impacting Driver Health

The information and perspectives provided by the drivers and family members highlighted a complex integration of many different factors that impacted their physical and mental health. We have summarised these into seven categories:

**A. Physical health factors:** Level of physical health, medical conditions, injuries, pain, diet and nutrition, physical activity, amount of sleep. These factors were often described as deteriorating during the years of truck driving. Several drivers described how they used to be active and some even sporty, but with the extensive number of hours sitting in a truck every day, and the cumulative fatigue that spilled over into the weekends, most of them identified that it was an impossible task to regain this side of physical health.

*“The biggest issue with drivers is just food and the availability of fresh, good food on the road. That’s probably one of the biggest issues. But the thing is, what people tell us to eat, and what is available on the road, it’s very hard to get... my work is all overnight so I sleep during the day and then eat during the night. So it’s very, very hard.”*

**—Int 03 Driver**

*“If you constantly made a decision to go for a run or something – this is when you’re out on the road – and you’re doing overnights as distinct from coming back to home each night. There’s opportunity there but you’d have to discipline yourself to go and do it.”*

**—Int 01 Driver**

**B. Mental health factors:** Coping mechanisms, response to stress, decision making ability, level of willpower. Many of the coping mechanisms were described as things that the drivers just do. One identified that his parents taught him to think in this optimistic way, one learned coping strategies when going through psychological intervention with a clinician due to relationship breakdown and being at a very low point in life, and others mentioned these strategies using words such as, “habits” or “this is what I do when...”

*“So... mental health, of course these are truck drivers and they don’t want to admit potentially that they have issues. And maybe they don’t even understand how mental health problems manifest. They might go home with a short fuse and not realise that that’s part of their mental health.”*—**Int 07 Family Member**

*“I don’t get depressed because I’m truck driving, but I still do have the occasional sad day, which I’ve been having ever since the divorce. I know how to cope with them. And I do know how, I have steered a few people down the same track that I got steered down. I’m very lucky.”*—**Int 09 Driver**

*“You want them to do a certain thing and some days [are] just real pains. That was really stressful but I also learnt that, when things go wrong you’ve got to take a deep breath and go, ‘Right, well this has happened. Stressing about it doesn’t matter, so just deal with it’ ”*—**Int 04 Driver**

**C. Relationships:** Level of connection with spouse/partner, interaction with children and extended family, degree of support from mates and others in their network. The majority of the drivers were on their second or third long-term relationship. They all blamed the breakdown of relationships on the long-haul trips that kept them away from their families. Some were estranged from their children, others were working out how to rebuild these relationships. Some connected with other drivers via radio when on the road, mostly during the middle of the night. Only a few saw “mates” outside of work due to the extensive time away from home and limited time on the weekend to recover and catch up with family.

*“The physical cost, social cost; the emotional cost of his work is massive... [We] have worked really hard over the last couple of years, in particular, to renegotiate how we’re going to parent, how we’re going to do life together.”—Int 13 Family Member*

*“Myself and my ex-wife separated... because I was away so much. So that’s probably one time where I lost everything.”—Int 03 Driver*

**D. Work conditions:** Workplace culture, health and wellbeing programs, support available through companies, treatment from managers. The workplace cultures differed across the drivers interviewed. Some felt they were treated as a commodity for the owners to make money, and others felt they were treated with respect and supported. There were no consistent links with the size of the company.

Some in large companies felt unacknowledged and others loved their workplace culture, and the same occurred in smaller companies. Some felt they were treated as part of the family while others felt ignored and were just completing their work to get paid. The driver experiences of levels of support from the managers and/or human resource (HR) departments varied across the interviews. Many drivers said they knew of some formal support services but wouldn’t access them as they were unsure of job security if they admitted a problem or need for help.

*“[If I miss a deadline] my management get rather upset with me. They like to try and yell, rant and rave down the phone at me and it’s just like water off a proverbial duck’s back.”—Int 01 Driver*

*“The smaller ones that I’ve worked for, you are more embedded into the company, as in there’s more of a family company. If you’ve been there for a while you are more embedded into the family if that makes sense. And they look after you like a family member. Not like an employee.”—Int 16 Driver*

**E. Regulations:** Including Policies, regulations and systems linking with fatigue management guidelines, logbooks, permits/rosters. While every driver was very aware of the specifics of the regulations for each state they drove in, there was an overwhelming dislike for the current legislative requirements. Several drivers identified that the current regulations encourage them to drive tired, and there is no flexibility to manage their own fatigue.

*“We all talk about it and we all say the same thing, the NHVR [National Heavy Vehicle Regulator] system is over-policed, over-regulated, there are too many people in offices making decisions for us working out on the road and they don’t understand our job and they don’t understand that we need the ability to be able to make decisions for ourselves and to regulate ourselves to a certain degree.”—Int 15 Driver*

**F. Environments:** Physical and built environments including the roads, parking bays, trucks, access to healthy food, access to facilities. The environment that each driver sits in every day (i.e. their truck, sometimes the same one, other times whatever truck was available), as well as roads, parking bays and access to the facilities, varied across interviews. They all stated that the toilets and showers on the road were extremely unclean, and they often had to stop and go to the toilet on the side of the road. The conundrum of no parking spaces versus the risk of driving on outside of logbook hours was a frequent occurrence.

*“[When needing to toilet on the side of the road]... you feel like an animal.”—Int 12*

*“[You] arrive [at the parking bay for your planned stop], it’s full of caravans. So, what do you do? [You have] no choice but to drive on and then what happens, you get to [the next town], where the NHVR are waiting, doing random work diary checks... “Here’s a fine, I’ll see you in court” and that fine can be up to \$15,000.”—Int 05 Driver*

**G. Attitudes:** Linking with social constructs, beliefs and perception of truck drivers by the public, predominantly male industry, attitude of macho, bravado, don’t talk about mental health or feelings. The attitudes of the drivers themselves confirmed that most of them believed they “should” handle whatever happens on the road or in family life without asking for help. They saw themselves as tough, and ‘macho’. They described how they experienced lack of respect and also abuse from the public and some people at management levels which impacted the drivers negatively. Several drivers explained how unappreciated they felt for the important role they had in keeping Australia moving.

*“We don’t get any recognition in the Press. We get blamed for the accident whether it’s our fault or not. We get treated on the highway as if we’re some leper that we hold people up, because obviously the trucks are bigger and slower and they’re intimidated by them.”—Int 12 Driver*

Each driver and family member talked about the interconnection of the factors and how each “problem” was linked to several factors. For example, receiving a fine due to driving outside of log book hours (regulations) as a combination of receiving incorrect information on pick up times or delayed loading (work conditions), demands from the company to meet unrealistic delivery deadlines (work conditions), delays from road works (environment) and parking bays being full (environment). This leads to increased financial stress on the family (mental health and relationships). The causative factors in this case are beyond the control of the driver.

## **Emerging Themes**

Following collating of factors into categories, the next step was to look at what themes were emerging from the experiences of the drivers and family members, and how they interacted with the categories. It is important to note that the majority of time in each interview was spent discussing the problems in the industry, the impacts that the job had on themselves as drivers and also on the families. Limited positive information was provided when asked to identify possible solutions to improve and the health and wellbeing of drivers in the future.

Two primary themes were identified that enabled and supported physical and mental health. These included:

1. Connections supporting mental health
2. Coping methods

Alongside the enablers, there were four themes that disrupted or were a barrier to physical and mental health. These emerged as:

3. Unrealistic demands
4. Financial pressure
5. Lack of respect and recognition
6. Compromised support systems

Each of the themes had sub-themes and where possible the driver and family member perspective are presented in support or in contrast of each other.

## Enablers That Supported Physical and Mental Health

### THEME 1: CONNECTIONS SUPPORTING MENTAL HEALTH

[Figure 4]

The first theme identified the importance of connection with others. The stronger the connection with family and/or mates, the more optimistic view of their workplace and role they had.

#### Sub-theme a) Family connections

Those who had strong connections with their spouse/ family member or other work colleagues appeared to have stronger mental health and more abilities to cope with the complex demands of the driving role.

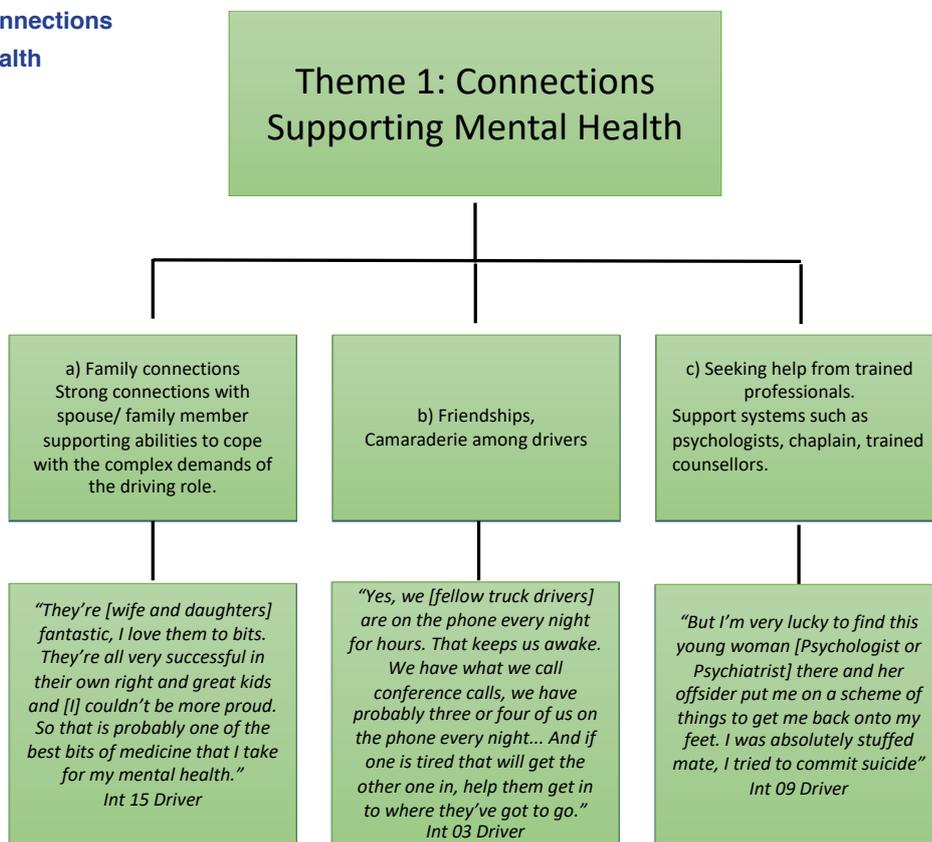
#### Sub-theme b) Friendship connections

Finding camaraderie among the other drivers, particularly when on the road overnight. Some of the drivers talked about how they connected with other drivers via the radio and often chatted for hours overnight to keep in touch, help each other through the fatigue and provide some fun and distraction from the loneliness.

#### Sub-theme c) Seeking help

Eight of the drivers talked about their understanding of support systems and people available which ranged from counsellors to Psychologists. Three discussed their experiences of reaching out for support from a trained professional (Chaplain, Psychologist or Psychiatrist). They identified the benefits of this and how this person was able to help them develop strategies to work through feeling depressed, dealing with broken relationships, or the demands of their job. One family member stated that the psychologist intervention “saved their marriage”.

Figure 4 Theme 1: Connections supporting mental health



## THEME 2: COPING METHODS

(Figure 5)

The second theme identified the importance of the individual's coping methods. Those that had developed an ability to deal with the challenges of the job, either through tapping into their internal resources or maintaining an ability to appreciate the good things at work, presented a more optimistic view of their role.

### Sub-theme a) Mindset and mental toughness

Personal mindset, degree of resilience and mental toughness emerged from the data. Some drivers talked about their determination to make 'it' work (being on the road for extended times), the self-management strategies they have in place, and their ability to problem solve the challenges they faced on a daily basis of being on the road.

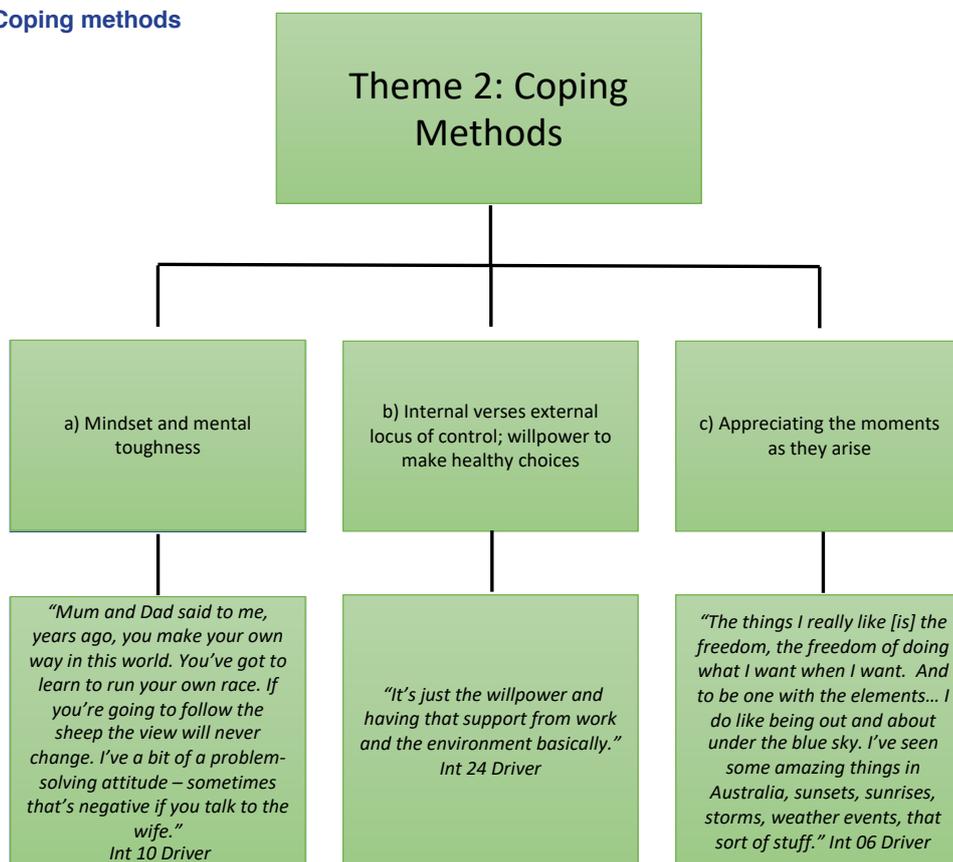
### Sub-theme b) Internal versus external locus of control

Internal motivators to self-manage their own health was demonstrated as willpower to make healthy choices of food and engage in physical activity. This was in contrast to those waiting for external factors such as recognition or regulations, to dictate the choices they made.

### Sub-theme c) Appreciating the moment

Ability to appreciate the moment was identified, and in turn deal with stress and high levels of demand or pressure through doing this. When the drivers took the time to notice and experience the moment, they were able to savour the moment and experience the physical and mental benefits of this response.

Figure 5 Theme 2: Coping methods



## Barriers to Physical and Mental Health

### THEME 3: UNREALISTIC DEMANDS

(Figure 6)

Many of the drivers discussed their perception of regulations being too rigid and not allowing self-management of fatigue. Experienced drivers were able to recognise the early signs of fatigue but were unable to stop at that stage and sleep or rest in order to run by the log book hours. Although the regulations were identified as being put in place for safety of the drivers, many of the drivers stated they were created without input or understanding of what the drivers were using on the road to self-manage. As a result, drivers suggested that the regulations put in place to protect the drivers and the public, appear to be encouraging drivers to drive when tired, and rest when not sleepy.

#### **Sub-theme a) Lack of control**

Drivers described that the strict fatigue management guidelines in most states do not account for personal factors, and demands driving or resting regardless of waiting times, personal ability or fatigue levels. They stated that the one size fits all approach of the logbooks, works to some degree, but creates a feeling of lack of control and increases stress when the requirements are unable to be met.

*"But you get to the point where you think to yourself why am I so stupid to keep doing this? Why am I doing this? Why and I letting myself be put under this pressure to do this? Why don't I just pull up and go to sleep when I'm tired? And all those sorts of things. So, it creates this inner turmoil that really festers all the time you know and you start to think that you're caught in a cycle trap that you just can't get out of."*—**Int 02 Driver**

#### **Sub-theme b) Flow on effects**

The lack of system organisation in some companies had a flow on effect to the individual needs of the drivers. This included delivery time pressures, miscommunication and lengthy waiting times. Many companies state waiting time is "rest time" and demand the driver then drives as per the log book. If drivers have been up at 5:30 a.m. and have to wait for 4–5 hours for their load, they are already tired when beginning their 5-hour drive for the first part of the delivery. However, they have to drive in order to get paid and get the load delivered on time.

*"So, [waiting or miscommunication about loads] just throws your body clock out and the bosses are saying, "You're just sitting there doing nothing" "Yeah, but I'm sitting there doing nothing, wide awake. And when you want me to drive, my body is telling me to sleep". And they're not giving them enough heads up."*

—**Int 20 Family Member**

### Sub-theme c) The external environment

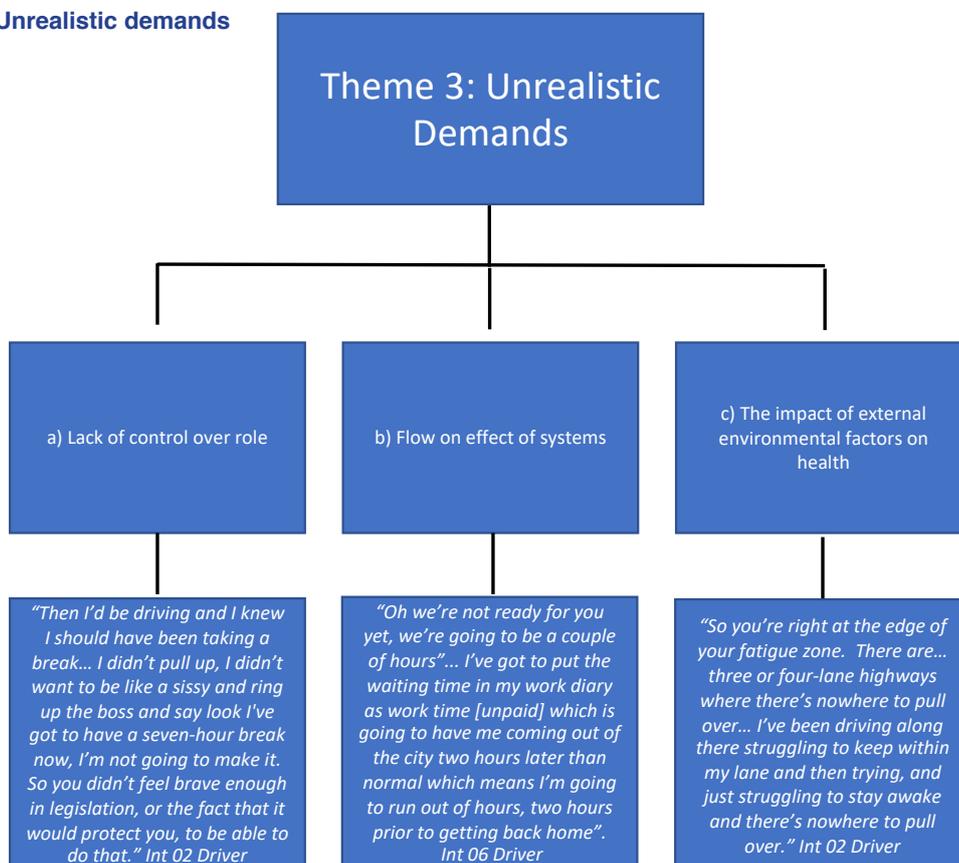
Drivers described how a range of external environmental factors such as road work delays, lack of parking bay spaces, no shade in parking bays for good sleep, lack of access to healthy and affordable food options at truck stops, interstate food regulations and smaller cab requirements all impacted their ability to do their job. These factors negatively impacted drivers' concentration levels, quality of sleep on the road and accumulative fatigue levels, leading to poorer physical and mental health.

*“So, you’re right at the edge of your fatigue zone. There are some cases of three or four-lane highways where there’s nowhere to pull over. I can personally tell you I’ve been driving along there struggling to keep within my lane and then trying, and just struggling to stay awake and there’s nowhere to pull over.”—Int 02 Driver*

*“But what used to be able to happen is when the mum and dads owned the roadhouses, and I use that term accurately and fondly... you got a healthy meal. For breakfast, lunch and dinner you could pull in and get a home cooked meal, vegetables, fish, a T-bone steak, a proper sit-down, cooked meal. Thanks to globalisation and corporate greed, now [names] own the majority of roadhouses that are left, and a lot of them have closed.”—Int 06 Driver*

*“There’s truck rest areas where there might be 10 and 15 trucks parked of a night time and there’s not one single toilet and nowhere to wash your hands, nowhere to wash your face, nowhere to cook a meal, nowhere to sit in the shade, trucks are all out in the sun in a dustbowl.”—Int 09 Driver*

Figure 6 Theme 3: Unrealistic demands



## THEME 4: FINANCIAL PRESSURE

(Figure 7)

Many drivers identified the pressure they felt to be on the road for extremely long hours every day. If the wheels aren't turning then there is no income to support their family and lifestyle they have created. If they experienced delays with loading/unloading or miscommunication about loading times or places, then they felt a rising pressure of failing to meet their delivery times. This could translate into lower earnings for the week, being in the boss' bad books and even for one driver the fear of being sacked. Several of the drivers recounted stories of mates who were extremely stressed and in two cases, suicidal, over the financial pressures.

*“Look there's been lots of stress. A lot of it is to do with when you don't have much sleep or you've got bills that you've got to pay or you don't have the money to pay the bills. I think the hardest thing for me too is when I lost everything with my ex-wife, I lost it all and I've never been able to get back to where I was.”—Int 03 Driver*

*“Just last week, I had a driver say that he nearly pulled the wheel on the truck to head straight into a tree, because it was just crap; it was too overwhelming for him. And this guy is nearly [age] and he's breaking down crying on the phone.” —Int 10 Driver*

### **Sub-theme a) Waiting time is unpaid**

Most long-haul drivers interviewed were paid per km and not for waiting time during loading or unloading. This seeps into the logbook hours and therefore the time available for driving within the 24-hour period. Failing to deliver on time also meant fewer loads per week and a smaller pay packet.

*“So, one of the things I guess if you draw that to how that impacts on a driver's health or their state of mental health is there's a pressure put upon you by your employer and the schedules they impose.”—Int 02 Driver*

### **Sub-theme b) Market competition**

Drivers discussed how the ongoing competitiveness to reduce the transport rate for cheaper freight delivery is driving down the profitability of driving. This negatively impacts their livelihoods and take-home pay rates. Drivers observed one solution to this being the cessation of employment of casual overseas labour, which allows companies to provide lower quotes for work as they don't have to factor in superannuation or leave pay. Drivers felt constant pressure is put on the permanent drivers to accept longer hours and reduced pay, or be replaced with these casuals.

*“But drivers today don't get paid what they should be for the work they do. It's just an abuse of power by the Transport Workers Union and big companies, big company associations who represent them in the Fair Work Commission.”  
—Int 14 Driver*

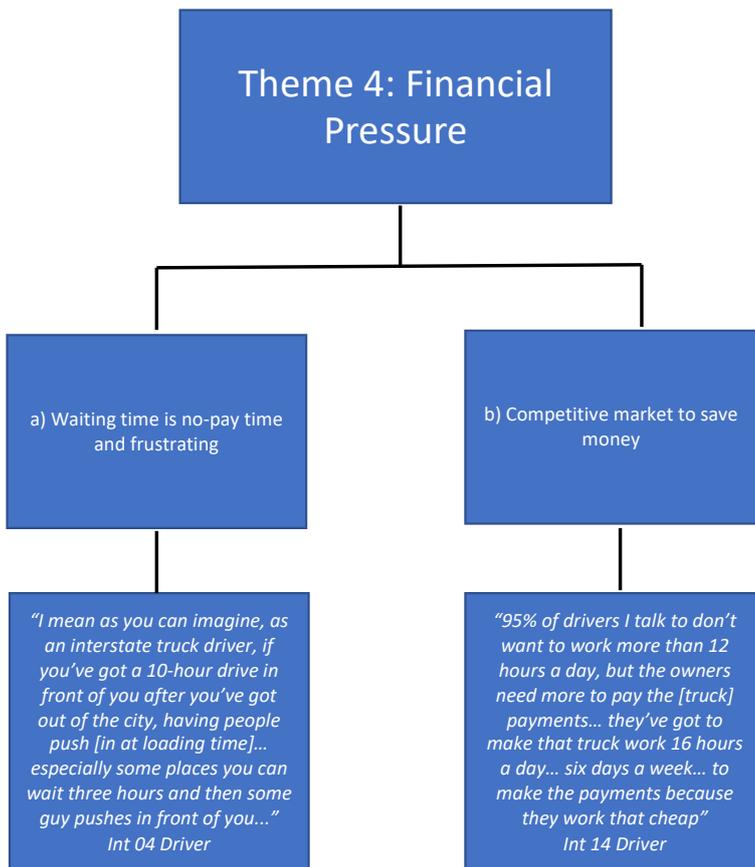


Figure 7 Theme 4: Financial pressure

## THEME 5: LACK OF RESPECT AND RECOGNITION

(Figure 8)

Many of the drivers and family talked about the way truck drivers were perceived by the public and the industry. They highlighted that they were often disrespected, not listened to, and didn't get to have a say in anything. The perception of the public, police, management (in some companies) and regulatory bodies towards truck drivers was described as one of disrespect and lack of interest by both drivers and family members. It was stated that the public didn't appreciate the fact that without professional truck drivers they would not have food, clothing, furniture, cars or any other goods they use.

### Sub-theme a) Not appreciated by the public

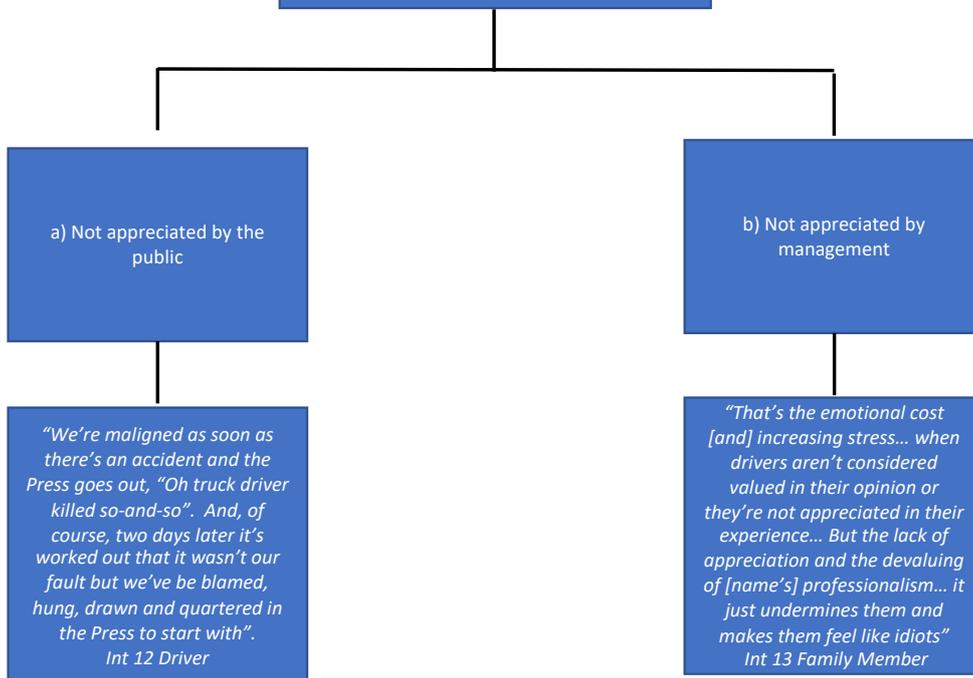
Stories were shared around road rage from motorists or cyclists, constant verbal and gesture abuse, and being treated as the person in the wrong even when the driver was the first responder. Drivers stated they were treated as if they had caused the accident, were instantly drug and alcohol tested and their explanations were not listened to.

### Sub-theme b) Not appreciated by management

Several drivers also discussed the lack of appreciation they felt from within their company and that they were treated more like a number than an individual. This negatively impacted how they felt about their role and profession, and increased levels of stress on a day to day basis. This was reinforced by the family members, but contrasted by three drivers who believed they were supported by their companies.

## Theme 5: Lack Of Respect & Recognition

Figure 8 Theme 5: Lack of respect and recognition



## THEME 6: COMPROMISED SUPPORT SYSTEMS

(Figure 9)

The way drivers and family members described the wide range of challenges drivers face, identified several areas where support systems appeared to be compromised. These areas ranged from the effects of working in a male dominated profession to being isolated on the road. The flow on effects of not always being able to cope were described in a range of ways, from feelings of guilt through to regret.

### Sub-theme a) Male macho mentality

Drivers and family members recognised that men generally didn't open up about problems or discuss their mental health or ill-health with others. Drivers questioned the appropriateness of available support services, the lack of understanding the counsellors had around truck-driving, and described that these support services were for crisis intervention rather than ongoing support.

*"If you felt yourself that you had it [depression], you would know what to do, but again, it's one of those things that until you realise that something is not right and you admit it to yourself, you're not going to follow up on any of it."*—Int 18 Driver

*"Then I'd be driving and I knew I should have been taking a break but I knew I had to be somewhere and I still remember that old bravado attitude. I didn't pull up, I didn't want to be like a sissy and ring up the boss and say look I've got to have a seven-hour break now, I'm not going to make it. So, you didn't feel brave enough in legislation, or the fact that it would protect you, to be able to do that."*—Int 02 Driver

### **Sub-theme b) Transferring stress**

Family members identified that they were often the default support person for the driver. This was described as tiring for the partner or parent and added additional stressors onto an often fragile home situation. Some companies monitor the driver's calls in and out through fatigue monitoring systems within the cab, and drivers experienced increased stress due to this monitoring. For drivers it felt like they couldn't have contact with their family during the day. Several also stated they were no longer allowed family members to ride with them on trips, further increasing the disconnect.

*"How [him offloading to me] would impact me... So, having to do that support and not really having those answers and not really having an insight into how that feels. I just have to be a passive support just agreeing and tutting and agreeing when it was appropriate. So, feeling that I wasn't a proper support for him as well."*

**—Int 11 Family Member**

*"And I try to help him re-frame the way he's thinking about things because it's not helpful to focus on how bad it is because it's actually not going to make it any better. And then we talk about it and we get off the phone and he's fine. So, I have noticed, particularly if he's tired, he is less able to cope with those kinds of frustrations."*

**—Int 07 Family Member**

### **Sub-theme c) Regret, guilt and trade-offs**

The emotional toll of being absent from family was echoed by all participants. Many of the drivers talked about regret, sacrifice and trade-offs where they were unable to be part of the important family or school events during the week. The conversations regarding their inability to sort anything out "at home" when on the road, and the expectation that they and their partners had to just get on and cope with whatever happened at home when they were away, was filled with regret and guilt.

*"I can remember one time she said, 'I was a bit bored while you were away so I sat down and worked out in [over 3 decades] of marriage you've only been home for three years'"*—**Int 14 Family Member**

*"He's [son] been looking for my guidance and my love I suppose and it hasn't been there because I've been too busy driving trucks and you know fighting my own battles."*—**Int 02 Driver**

A large number of long-haul truck drivers had experienced relationship breakdown due to financial pressures and the length of time away from home. Additionally, they were so fatigued at the end of their week, that there was nothing left to give their partner until they had recovered, usually after 12 to 14 hours of sleep. Full recovery often took 24 hours, so the partners steered clear of each other until this happened. This then left minimal time for connection, domestic chores, and preparation for returning to work again.

*"But it's very hard, when you're not there, to have that quality in a relationship."*

**—Int 12 Driver**

Most of the drivers were on their second marriage or relationship and talked about the strains of distance and travel on their previous relationships and disconnect with their children. Some had created a way to manage this differently through regular phone calls with family while on the road, others still felt the separation and lack of connection due to not being physically present for family and school events. Drivers all made trade-offs and rationalisations around being absent.

*“Things need doing around our place. When I get home, I’m so exhausted I just come home, I do my laundry, cook some food, might go out for dinner or lunch and then sleep, that’s it. So, there’s a very strong potential of disconnection within the relationship.”—Int 10 Driver*

#### **Sub-theme d) Dealing with isolation**

Many of the drivers identified the benefits of being on the road on their own, being their own boss and enjoying their own company. However, there was also a downside. Isolation for days on end meant that there was a lot of time to think about one’s own situation and circumstances, and this often led to “the black dog” of anxiety and distress. It also created times of “darkness” for the driver that was hard to get through on their own.

*“And they wonder why the marriages are breaking down. The stats are like three out of four marriages. You can’t isolate people from their families and expect everything to be honky dory. You just can’t. But the transport industry is, it’s isolating the drivers from their families.”—Int 6 Driver*

*“The fact that you’ve got a driver that’s depressed in a really, really bad state of mind because of something that’s going on with either his job or his boss or his wife or his family, or something in his life, and he’s in charge of a vehicle that technically is a missile or a bomb doing 100kms an hour, that could do so much damage and so much carnage out there, if he makes the wrong decision or does the wrong thing.”  
—Int 15 Driver*

#### **Sub-theme e) Constant transition**

The constant need to transition between being by oneself and being with the family was described as very difficult. Two drivers talked about the difficulty of re-adjusting back to the family environment for the 1-2 days they had off each week. One discussed the tension between what the family had planned and the things the driver wanted to be part of once they were home. This often did not work, and led to separation.

*“[She would say] ‘well I’ve got plans. I’ve already planned to do this with one of the kids’ or ‘I’ve got other plans’ or ‘Oh, okay, well what are we going to do now?’  
... And you feel really superfluous and so many drivers I’ve spoken to have either ended up at home for a week or something and within two days, the wife’s saying, ‘You’re under my feet. Get out of the way, go back to work.’” —Int 12 Driver*

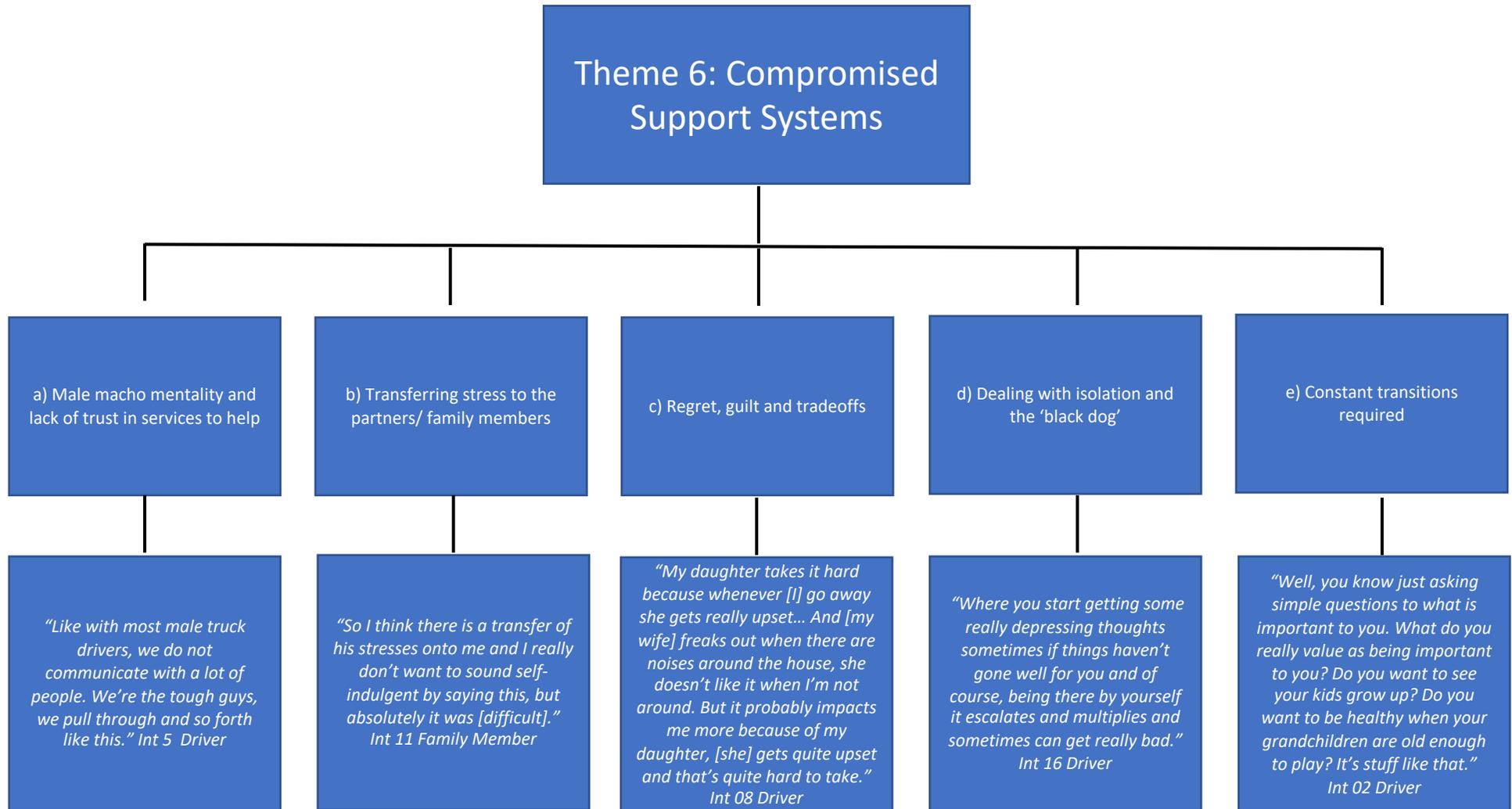


Figure 9 Theme 6: Compromised support systems

# Discussion

This study aimed to identify and explore the factors influencing and promoting health and wellbeing for truck drivers from their perspective and that of their family. The seven categories of factors, along with six emerging themes, their sub-themes and quotes from drivers and family members illustrate the complexity that is the health and wellbeing of professional truck drivers in Australia. The findings suggest it is unlikely that simple changes will provide a solution to the problems described with driver health. Rather, a systematic approach to the challenges that addresses the individual, the employment conditions, the environment they operate in and the regulatory systems they need to follow, is required. The complex nature of the industry and interaction of all the players has previously been stated in a study surveying 559 Australian truck drivers which explored the incidence of fatal occupational injury, and the cost of serious injury claims among transport workers.<sup>[11]</sup> It must be noted that the current study is based wholly on the perspective of one stakeholder (drivers and family members) in the transport system, and does not include the perspective of employers or regulators. Any proposed solutions must clearly involve all stakeholders in the system in order to achieve positive and sustained change.

## Driving With Flat Tyres

The seven categories of factors influencing driver health and wellbeing can be conceptualised as a wheel, with each category forming a “spoke” of the wheel [Figure 10]. When there is balance across each category, the wheel will roll smoothly, much as a truck wheel should. However, if one or two categories are weaker, the wheel will be more like a flat tyre. It will still operate, but it will not be efficient and may even be dangerous.

Taking this approach, it may be possible to request drivers to score each category on a scale from 0 (as poor as it could be) to 10 (best it can be) based on their unique perspective on how each category applied to them. A balanced response across each category is illustrated in Figure 11.

Taking a clinical approach, this may be a way to identify the most appropriate priority area to provide support to help the driver avoid a “flat tyre”. If a driver scores their mental health and relationships below other categories in the wheel [Figure 12], this would suggest the first area of focus should be supporting them to improve their mental health and supportive relationships.

Taking a wider view of the industry, an employer could ask employee drivers to score their individual wheel, which may indicate where the employer could best apply their resources to support their workforce. For example, if the majority of their employees rated work conditions as low, the employer would be better off identifying how to improve working conditions rather than providing or strengthening an employee assistance program (EAP).

The wheel analogy has potential to be used as an ongoing tool (routine monitoring) to identify where to focus efforts on improving driver health and wellbeing in a complex system and avoid the need for crisis intervention. Further research is needed to validate this approach.

## Driver Wellbeing Wheel

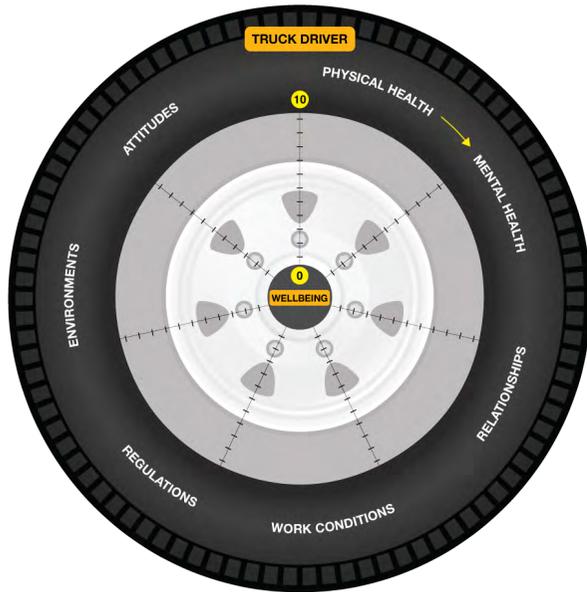


Figure 10

Driver Wellbeing Wheel identifying the 7 categories that impact their health and wellbeing. Scoring each category out of 10 will help to identify when there is a balance or whether the driver is running on a 'flat tyre'.

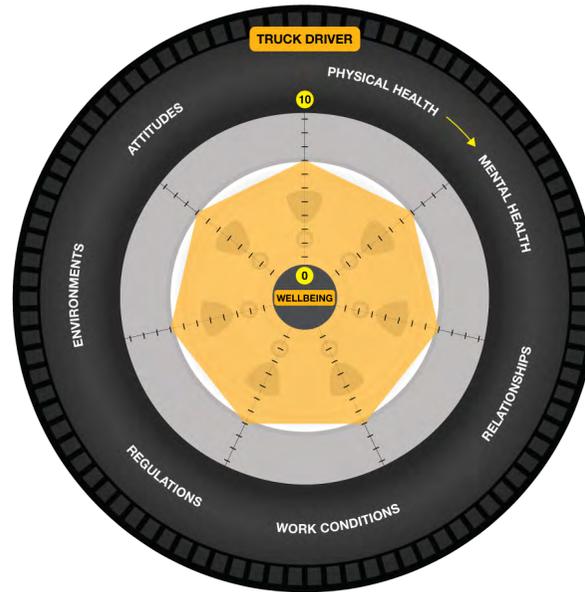


Figure 11

Driver Wellbeing Wheel scored experience as having a balance across each of the 7 categories.

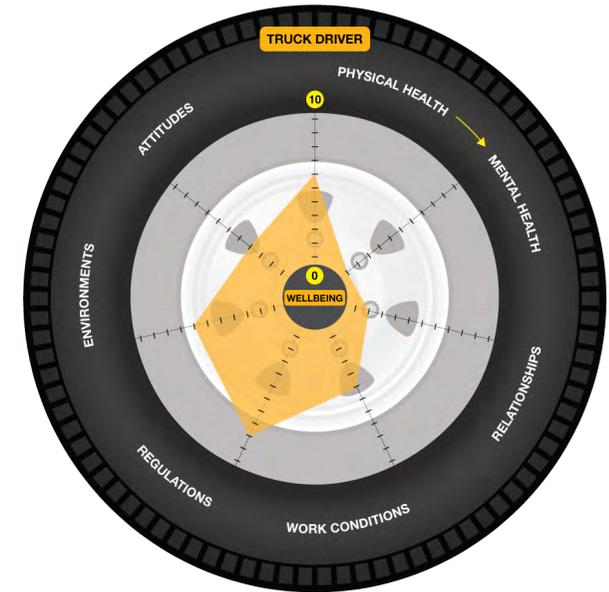


Figure 12

Driver Wellbeing Wheel indicating an imbalance or uneven wear across the 7 categories. This scoring identifies that mental health and relationships as being the first priority to address, with work conditions and attitudes as the next priority. The uneven wear on this wheel means it will need replacing much sooner, much like a driver's wellbeing and performance requiring intervention sooner.

## Potential Solutions

When asked for possible solutions and interventions to strengthen the health and wellbeing of drivers, all interviewed parties struggled to describe clear methods or options.

However, based on the categories and emergent themes identified in the interviews, we were able to collate six possible areas of focus for future intervention programs:

1. Coping and self-management strategies
2. Specialised expertise for physical and mental health support
3. Strategies for better sleep
4. Healthy food options on the road
5. Public education programs
6. Protection for whistle blowers

### COPING AND SELF-MANAGEMENT STRATEGIES

Coping and self-management strategies for the driver and also family members could address three categories influencing wellbeing; namely physical health, mental health and relationships. An intervention in this area would strengthen the two enabling themes identified in this analysis, namely the connections supporting mental health and coping methods. Some drivers described self-management strategies and personal habits that enabled healthy behaviours despite the barriers they regularly encountered. Other drivers felt they weren't able to cope or make healthy choices, despite knowledge of what the healthy options were. In a similar manner, some drivers displayed higher internal motivation and resilience to cope with the rigours of being on the road, whereas others felt powerless. Strategies for promoting and training drivers to enhance their coping and self-management strategies would need to be informed by drivers and others with experience in the transport industry in order to maximise uptake by drivers.

### SPECIALISED EXPERTISE FOR PHYSICAL AND MENTAL HEALTH SUPPORT

Specialised support could address five of the identified categories; physical health, mental health, relationships, work conditions, environments and attitudes, and stretch beyond the coping strategies described in the first solution. Drivers were clear that support services for their mental and physical health needed to understand the unique demands of the transport industry. Access to health professionals was limited for drivers interviewed due to the hours worked. Continuity of care was difficult for drivers working across the country and regular appointments were often impossible due to shifting schedules. Specialised health support may be able to be delivered through the employer, provided the focus was on maximising driver health rather than compliance, and drivers were not fearful of consequences if a health issue was identified. Specialised expertise to support driver health and wellbeing would allow for ongoing management aligned with the requirements of the job.

### STRATEGIES FOR BETTER QUALITY OF SLEEP

The identified categories of work conditions, regulations, environment and attitudes all impacted on sleep. Sleep in turn impacted physical health, mental health, and relationships and solutions to improve the quality of sleep needs to be explored. Additionally, improving sleep would address some of the barriers described in the unrealistic demands theme.

The contrast between long- and short-haul drivers was noteworthy in relation to stress and sleep. The long-haul drivers described times of peace and quiet on the open road that were rejuvenating. However, the cramped cab conditions, heat and road noise when in parking bays, accumulative fatigue over the week (mentioned by all drivers), impacted their quality of sleep. While those on short-haul predominately slept in their own beds, some were away for 2–3 nights at a time or had night shifts so returned home each morning to sleep, and their circadian rhythms were disrupted as a result. Providing strategies to improve sleep needs to be a multi-pronged approach to address personal habits with the driver, shift allocation with the employers, legislative regulations regarding the smaller sizes of the cab and the environments provided in on-road facilities.

### **ACCESS TO HEALTHY FOOD ON THE ROAD**

The fourth possible solution is to improve access to healthy food on the road and empowering healthy choices. This intervention would have the largest interaction with three of the identified categories: physical health, regulations and environments. It would also impact on the barriers described in the themes of financial pressure and a lack of control. Even though the drivers and their family members understood what choices needed to occur to support healthy eating, the limited truck stop food outlets, size of the fridges on board, inability to park near supermarkets and the interstate regulations for transit of food all negatively impacted available options. Lack of willpower to select the healthier option is connected to the level of energy and sleep one has had.<sup>[12]</sup> When energy is low, willpower to make certain choices reduce and people will choose the easy and familiar food options.

### **PUBLIC EDUCATION PROGRAMS**

The fifth possible solution is through providing public education programs to address safe driving practices around trucks and to raise the public profile of the truck driving profession. This approach would address the barriers described in the theme of lack of respect and recognition. Much of the frustration drivers experienced on the road was identified as other road users and their lack of knowledge and skills when driving around the trucks. Drivers also described regular abuse from other road users who didn't appear to understand the value that trucks and their drivers bring to daily life, since everything in our homes comes via a truck.

### **PROTECTION FOR WHISTLE BLOWERS**

The sixth possible solution would be to provide protection for whistle-blowers. This would impact on the barriers identified in the theme of financial pressure. Several of the drivers discussed their fear of being sacked if they spoke up when something was substandard or systems were applied poorly. Many drivers felt disempowered to speak up. Three drivers talked about their experience of doing so and being sacked. Examples raised included a company that was running two sets of books, ongoing ignorance of maintenance despite repeated reporting by drivers and questioning the rate they were being paid. If the industry is wanting to hear what the drivers are saying, there needs to be a way of protecting their jobs so that they can speak up with confidence and be part of the solution going forward.

All of these proposed solutions have been derived from the information provided by drivers and family members. Further work is required to identify the extent to which such solutions currently exist, how they may be implemented and who would be responsible for their introduction into the industry. It is likely that a range of other solutions are possible to address some of the components identified in this study.

# Strengths & Limitations

A key strength of this study lies in the number of drivers and family members interviewed and the breadth of experiences they represent. A number of states, age groups and years of experience are represented. Capturing the perspective of the family members reinforces the information described by drivers and allowed investigation of impact that driving has on the partner and extended family.

A limitation of the study was that fewer family members than drivers were interviewed due to the challenges of Covid-19 and the increased stress people felt. Despite this, in the last three interviews no new information was being presented and therefore saturation was likely to have been reached.

## Next Steps

The next phase of this study is to synthesise the results from these qualitative findings with findings from other components of the Driving Health study to identify and describe opportunities to intervene to improve the health of drivers. This study identified the complexity involved in driver health and wellbeing, and any approach to addressing challenges in this space must be done with a high level of industry input and engagement. This is a future aim of the Driving Health project.

## Summary & Conclusion

This qualitative study has enabled us to understand in greater depth the impact of the work and lifestyle factors on the physical and mental health of professional truck drivers and their family members. We identified seven categories of factors that contribute to driver wellbeing. When these categories are out of balance, the driver will experience uneven wear and wellbeing will suffer as a result. Driver health and wellbeing is a complex phenomenon, and any intervention aiming to improve the health of drivers needs to be designed with input from all stakeholders in the industry, including drivers, employers and regulators, using a multi-level systematic approach.

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# Appendix I

## Questions for semi-structured interviews (process over time—for grounded theory design)

### DRIVER

1. What areas of truck driving do you like/ dislike?
2. How would you describe your own health right now?
  - a. How has this changed over the time you have been driving?
3. What factors improve or impair your health?  
*E.g. Work factors, experience, training, health conditions, food intake, movement/exercise, equipment used, loading, unloading, the rigs, being on the road alone.*
  - a. How do they improve or impair your health?
  - b. What impact does driving have on your sleep or stress?
  - c. How do you manage the fatigue or stress?
  - d. When or how do you access doctors/ or health clinics if you need them?
4. Have you ever made previous attempts to improve your health?
  - a. What worked?
  - b. What didn't work?
5. What would help support you and your health in the future?
  - a. From your employer
  - b. From yourself
  - c. From your family
  - d. From GPs or health clinics
6. What wouldn't work?
  - a. Information
  - b. Incentives
  - c. Digital aps/ devices (*e.g. fitbit, pedometer*)
  - d. Coach
  - e. Policies
  - f. Programs
7. Have you ever had a truckie mate that has struggled with depression or stress?
  - a. How did this affect you?
  - b. What are your thoughts around driving and stress? (physical, emotional, financial)
8. How does driving affect your family life?
  - a. Would it be possible to speak with someone from your family to also get their perspective?
9. How do you get on with the people you work with/ for? (*e.g. in the truck, loading, paperwork processing*)
  - a. How has this changed over time?
  - b. How does this improve or impair your health?

### Demographics

- Age bracket
- Long-haul/short-haul?
- Type of rig/loads
- Any previous claims? What for?—Musculoskeletal, other trauma, fractures, neurological (including hearing), mental ill health, other diseases.
- Owner operator/employed? How big is the company? How many drivers employed?
- How long have you been truck driving?

# Appendix II

## Questions for semi-structured interviews (process over time—for grounded theory design)

### FAMILY

1. What do you like/dislike about your partner/spouse driving?
2. How does driving affect family life?
  - a. Has this changed over time?
3. How would you describe their health right now?
  - a. How has this changed over the time they have been driving?
4. What factors do you think improves or impairs their health? *E.g. Work factors, experience, training, health conditions, food intake, movement/exercise, equipment used, loading, unloading, the rigs, being on the road alone.*
  - a. What impact does driving have on their sleep or stress?
  - b. How do they manage the fatigue or stress?
  - c. When or how do they access doctors or health clinics if they need them?
5. What would help support them and their health?
  - a. From the employer
  - b. From themselves
  - c. From the family
  - d. From GPs or health clinics
6. What wouldn't work?
  - a. Information
  - b. Incentives
  - c. Digital aps
  - d. Coach
  - e. Policies
  - f. Programs
7. Have you even known them to struggle with depression or stress?
  - a. How did this affect them and the family?
  - b. What are your thoughts around the life of truck driving and family stress? (physical, emotional, financial)
8. How does their role impact you and the family?

### Demographics

- Age bracket
- Number in family – dependents/other
- Long-haul/short-haul?
- Type of rig/loads
- Any previous claims? What for? – Musculoskeletal, other trauma, fractures, neurological (including hearing), mental ill health, other diseases.
- Owner operator/employed? How big is the company? How many drivers employed?
- How long have they been truck driving?