LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

STANDING COMMITTEE ON JUSTICE AND COMMUNITY SAFETY
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Submission Cover Sheet

Inquiry into Dangerous Driving

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CORONERS COURT OF THE AUSTRALIAN CAPITAL TERRITORY

Case Title:	**Inquest into the death of Blake Andrew Corney**
Citation:	**[2021] ACTCD 6**
Hearing Dates:	**28 & 29 July 2021**
Decision Date:	**15 November 2021**
Before:	**Chief Coroner Walker**
Findings:	See [79] to [83]
Catchwords:	**CORONIAL LAW** – cause and manner of death – matter of public safety – death caused by culpable driving – licencing requirements for heavy vehicle drivers – medical assessment and reporting of fitness to drive – collision-avoidance technology in heavy vehicles – recommendations
Legislation Cited:	*Coroners Act 1997* (ACT) *Motor Vehicles Standards Act 1989* (Cth) *Road Transport (Driver Licensing) Regulation* 2000 (ACT) *Road Vehicles Standards Act 2018* (Cth)
Cases Cited:	*Harmsworth v The State Coroner* [1989] VR 989
Related Cases:	*R v Livas (No 2)* [2020] ACTSC 116
Representation:	**Counsel Assisting** Ms R Curran **Counsel for the Australian Capital Territory** Mr N Oram, instructed by the ACT Government Solicitor
File Number:	CD 179 of 2018

CHIEF CORONER WALKER:

1. This inquest is concerned with the death of Blake Corney, who was born on 23 May 2014 and died in a motor vehicle accident on 28 July 2018. I respectfully refer to Blake by his given name.

2. My jurisdiction to hold an inquest in this matter arises pursuant to s 13(1)(g) of the *Coroners Act 1997* (ACT) which provides*:*

> (1) A coroner must hold an inquest into the manner and cause of death of a person who—
>
> ….
>
> (g) dies after an accident where the cause of death appears to be directly attributable to the accident.

3. Blake's parents were active participants in these proceedings. The Territory appeared with leave. Mr Livas, the driver of the other vehicle, was notified of the proceedings but declined to participate.

4. The hearing was held on 28 and 29 July 2021. Delivery of my findings was delayed, firstly by the requirement for written submissions and, later at the request of Blake's parents for practical and personal reasons, including the impact of COVID-19 on being able to proceed in person, as was their wish.

5. The factual circumstances of Blake's death are uncontentious. I adopt the summary prepared by Counsel Assisting, as follows:

> Blake …. died as a result of catastrophic head injuries sustained in a collision that occurred at the intersection of Monaro Highway and Mugga Way, Hume in the ACT. Blake was four years of age and was the eldest child of the two children of Andrew Corney and Camille Jago.
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> The collision was caused when a 16 tonne medium rigid tipper truck (Mitsubishi Fuso) driven by Mr Akis Livas, which was travelling north along the Monaro Highway, collided with the right rear side of the stationary Ford Territory (ACT registration YMI05U) in which Blake was a back seat passenger in an appropriate child restraint. In the seconds immediately prior to the collision the truck was travelling at between 70-74 kilometres per hour. At the point of impact the driver had commenced braking.
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> There was dash cam footage of the collision from the Mitsubishi Fuso. There was further footage from the vehicle of a witness who was waiting to cross the Monaro Highway at the Mugga Lane intersection. There were two other vehicles, also stationary, which were involved in the collision. The Ford Territory was being driven by Mr Andrew Corney. Mr Corney was completely blameless in respect of the collision that occurred. The other occupants of the Ford Territory were Ms Camille Jago, in the front passenger seat and Mr Aiden Corney, the 2 year old brother of Blake who was seated in an appropriate child restraint seat behind Ms Jago. The driver of the truck was Mr Akis Livas, an employee of a local Canberra based company, Canberra Sand and Gravel. Mr Livas was charged with, and ultimately pleaded guilty to, one count of culpable driving causing death pursuant to s.29(2) of the *Crimes Act 1900* (ACT).
>
> Police and other emergency services personnel attended the scene of the accident soon after the collision. Blake was still located in the Ford Territory in the child restraint. At 11.55am on that date Dr Amanda Barry attended the scene of the accident and formally pronounced life extinct. Blake's body was conveyed to the Phillip Forensic Medicine Centre.
>
> On 31 July 2018 Professor Johan Duflou performed an autopsy on Blake. The findings were that Blake died of massive fatal head injury.

6. To the extent that they touch upon issues considered in these proceedings, the Court is bound by the findings in the court which sentenced Mr Livas, constituted by Mossop J in the Supreme Court (*R v Livas (No 2)* [2020] ACTSC 116).

7. Mr Livas' criminal culpability was based on the following facts:

> [26] …

(1) Since 2013, the offender was on notice that he may have had sleep apnoea. Over the subsequent years he had reported, variously, insomnia, breathlessness and drowsiness, to medical practitioners;

(2) The offender had never sought diagnosis and/or treatment for possible sleep apnoea, and failed to attend to two sleep study referrals (2013, 2017);

(3) The offender did not inform his employer of his possible sleep apnoea, either before he commenced employment, or at any later time. Before commencing employment on 14 November 2017, the offender positively asserted that he was in good health and that he was not aware of any condition which may affect his performance of his duties;

(4) The offender did not inform the ACT Road Transport Authority of his possible sleep apnoea when applying to renew his heavy vehicle licence on 24 January 2018;

(5) The offender felt tired more than usual during the few days leading up [to] the collision;

(6) At the material time the offender was driving a heavy vehicle in the course of his employment as a truck driver.

The offender failed to maintain proper control of his vehicle, which caused the death of Blake Corney. Given the above 6 facts, the offender's driving at the material time was culpable.

[27] It is important to note that this articulation of culpability does not identify any actual knowledge on the part of the offender that he had sleep apnoea or any knowledge that a doctor had recommended to or instructed him that he should not drive.

[28] The Crown placed particular emphasis upon the fact that the standard of care that a commercial truck driver would have adopted in relation to health issues associated with fatigue management was significantly higher than that which would be adopted by an ordinary member of the driving public.

[29] So far as the causal link between the culpability and the accident was concerned, counsel for the Crown identified that, in light of what occurred following the diagnosis of sleep apnoea in January 2019, had the offender had his condition investigated earlier he would not have been driving the truck at the time. As a consequence, the causal link between the culpability and the accident was established. Counsel for the offender did not take issue with this chain of reasoning.

8. It is important to note that Mr Livas was found criminally culpable for driving against his background of medical concerns, not because he lost concentration or fell asleep due to sleep apnoea. Indeed, Mossop J noted at [35] of his sentencing remarks:

> This is not a case involving an immediate and obvious risk of which the offender was conscious at the time of the offending. Rather, it was conduct which involved a systematic failure to take steps which a professional truck driver ought reasonably to have taken. The objective gravity of the offending would have been increased had the offender had a clear diagnosis of sleep apnoea or had he been told expressly that he should not drive until his condition had been further investigated.

9. His Honour's observations, which follow, are important in highlighting the issue of concern in those proceedings:

> The plea of guilty recognises that his conduct was a gross departure from the standard of a reasonable person in his position and that the departure was unjustifiable. The significant factor in determining his moral culpability is the obviousness of the risks associated with driving large trucks on urban roads. Whether through ignorance or personal failings, the failure by a professional truck driver to properly attend to health issues associated with the management of fatigue and the failure to make any disclosures of the matters of which he was aware involves moral culpability because it imposes upon others increased and unnecessary risks associated with the use of such large dangerous vehicles.

Scope of Inquiry

10. The scope of this Court's inquiry is not limited by the matters to be determined in the criminal proceedings; nor is it at large. The Coroner's jurisdiction is circumscribed by s 52 of the *Coroners Act 1997* (ACT) and is twofold. The first limb is the requirement to make, where possible, findings as to:

> (1) (a) the identity of the deceased; and
>
> (b) when and where the death happened; and
>
> (c) the manner and cause of death …

11. The second limb relevantly requires the Coroner to state:

> (4) (a) (i) whether a matter of public safety is found to arise in connection with the inquest or inquiry; and
>
> (ii) if a matter of public safety is found to arise—comment on the matter.

12. Whilst findings will be made as to the first limb, based upon facts found in the criminal prosecution, the hearing was concerned exclusively with what if any findings should be made within the scope of the second limb.

13. I accept the submissions made by the Territory as to how the scope of an inquest is to be determined, that is, the second limb is circumscribed by the first. In *Harmsworth v The State Coroner* [1989] VR 989 at 997, Nathan J addressed the Coroner's power to comment:

> The power to comment arises as a consequence of the obligation to make findings… It is not free ranging. It must be comment 'on any matter connected with the death.' The powers to comment and also to make recommendations… are inextricably connected with, but not independent of the power to enquire into a death or fire for the purposes of making findings. They are not separate or distinct sources of power enabling a coroner to enquire for the sole or dominant reason of making comment or recommendation. It arises as a consequence of the exercise of a coroner's prime function that is to make 'findings'.

14. The application of that principle is not always straightforward, there being no 'bright dividing line' to guide coroners. However, there must be a common sense link between findings as to the manner and cause of death and the matters of public safety identified, and any consequent recommendation. As will become apparent from my findings below, I consider the causal connection far less constrained than Counsel for the Territory contends.

Evidence available to the inquest

15. I considered the evidence detailed in Counsel Assisting's submissions:

    (a) AFP brief of evidence

    (b) Crown tender bundle from the criminal prosecution in the Supreme Court

    (c) Letter from Ms Derise Cubin – Executive Branch Manager Licensing and Regulation, Access Canberra

    (d) Report of Mr Lauchlan McIntosh – Towards Zero Foundation

    (e) Letter from Mr Sal Petriccuto – CEO – National Heavy Vehicle Regulator (NHVR)

(f) Report of Dr Vanita Parekh – Senior Specialist, Forensic Medicine (Fitness to Drive Medical Clinic)

(g) Letter of Mr Giuseppe Mangeruca – Acting Executive Branch Manager, Access Canberra

(h) Report of Detective Leading Senior Constable Ashley Laidler, Australian Federal Police (AFP)

16. The following witnesses attended the hearing:

(a) Detective Leading Senior Constable Ashley Laidler, Collision Reconstructionist attached to the Collision Investigation and Reconstruction Team, AFP

(b) Dr Vanita Parekh – Senior Specialist, Forensic Medicine (Fitness to Drive Medical Clinic),

(c) Ms Belinda Hughes – Prosecutions Statutory Compliance – NHVR

(d) Mr Lauchlan McIntosh – Towards Zero Foundation

(e) Mr Giuseppe Mangeruca – Acting Executive Branch Manager, Access Canberra

(f) Mr Andrew Corney

(g) Ms Camille Jago

17. After the inquest closed, a letter was received from the Trauma Committee and Road Trauma Advisory Committee of the Royal Australasian College of Surgeons dated 2 July 2021. This letter advocated for the Australian Design Rules to mandate autonomous emergency braking (AEB) on all new vehicles imported into Australia, especially heavy vehicles. It is annexed to these findings ('Annexure A'). It does not constitute evidence in this case but reflects the wider community concern about the issues considered here.

18. The bulk of the evidence was documentary and received in advance of the hearing. I directed that all witnesses who were to respond to questions arising from the documentary evidence, together with Blake's parents, attend in a round-table forum with the aim of addressing issues arising from that evidence efficiently and collaboratively. I am obliged to all participants for their accommodation of this approach.

19. With the assistance of Mr McIntosh, I attended an organisation called Seeing Machines along with Counsel Assisting, Counsel and other lawyers for the Territory, and Blake's parents, in order to observe monitored fatigue and distraction detection technology (FDDT) in operation.

20. Whilst there was a broad-ranging consideration of wider issues of potential relevance at the hearing, my findings are limited to those matters which on the balance of probabilities were relevant to Blake's death and recommendations relevant to these circumstances which, if adopted, may contribute to avoiding deaths in similar circumstances in the future.

The Issues

21. Counsel Assisting succinctly captured the essence of the issues of public safety which arises on the evidence at [31] of her submissions:

> Noting the driver's personal responsibility to take measures to ensure the safety of other road users, questions of public safety arise. In the context of the public safety of road users of ACT roads, which of course has application nationally, the questions are whether this tragedy could have been prevented if:
>
> (a) heavy vehicle licence regulations had required Mr Livas to have his medical conditions medically investigated, through a GP or fitness to drive clinic or employer, and
>
> (b) heavy vehicle safety technologies were mandated or otherwise incentivised.

22. I turn now to a consideration of those issues.

Licensing requirements for commercial drivers with identified or suspected sleep apnoea

23. At [57] in his sentencing remarks of Mr Livas, Mossop J observed:

> The offender had a number of opportunities to investigate or disclose such issues and unreasonably failed to do so. That even with these failures he was still able to be on the road driving a commercial vehicle does suggest that there were failures in the regulatory system for persons in his position. However, that does not detract from his personal duty to take care for the safety of others.

24. Those remarks address the issue of personal responsibility which was the essence of the criminal matter. However, in looking beyond criminal culpability, this inquest considered whether, where there is a recalcitrant, ignorant or dishonest driver, measures extraneous to the driver might be put in place to minimise the effect of any omissions by the driver him or herself.

25. Mr Livas' medical history discloses that medical suspicion of sleep apnoea was first evident in 2013, when Justice Health Service records disclosed that he had a possible diagnosis of sleep apnoea based on his description of symptoms consistent with that condition. He was advised to see his doctor for review, including possible referral for a sleep study. Mr Livas was then referred for a sleep study on 3 September 2013 but did not attend.

26. Mr Livas' general practitioner, Dr Philip Verghese, completed a medical report on 11 April 2017 prior to Mr Livas' employment commencing with Canberra Sand and Gravel, his employer at the time of the collision. It should have been conducted in accordance with the guidance of the publication 'Austroads: Assessing Fitness to Drive for Commercial and Private Drivers 2016, as amended to August 2017' which sets the medical standards applicable across all Australian jurisdictions (report of Dr Parekh, 11 February 2020, page 4). No condition likely to affect his ability to drive was disclosed by Mr Livas' self-report. This illustrates the danger of relying upon self-report to identify conditions which may impact upon a driver's capacity.

27. Mr Livas attended the same medical practice in June 2017 and his general practitioner again noted possible sleep apnoea and recommended a sleep study. On 31 July 2017, he was again referred by different general practitioner at that same practice for a sleep study on the basis of possible sleep apnoea. That referral was reprinted on 3 August 2017. That study was never undertaken.

28. The significance of reporting health issues is that it allows the RTA to either suspend a driver's licence or cancel it if the issue is serious enough, or to put in place other measures, such as conditions on the licence or requirement for medical assessment.

29. The question is, what could have been in place that may have prevented Mr Livas from being licensed to drive in those circumstances.

30. There are already some requirements on drivers to disclose health issues for licensing purposes. All drivers in the Territory have an ongoing obligation to report any health condition which may impact on their capacity to drive as soon as practicable and in any event within seven days. Failure to do so is a criminal offence (s 72 *Road Transport (Driver Licensing) Regulation 2000* (ACT)).

31. A medical practitioner is exempt from civil and criminal liability for reporting information to the RTA as to a person's potential unfitness to drive, whether as a result of conducting a test or examination in accordance with the regulations or of their own initiative. However, in the ACT there is no positive duty on a medical practitioner to report such information, unlike in the Northern Territory and South Australia, which have both legislated for mandatory reporting from medical practitioners (and some other health practitioners).

32. Dr Vanita Parekh, Senior Specialist in Forensic Medicine, established the Fitness to Drive Clinic in the ACT ('the Clinic'). Her explanation of its genesis is as follows:

> In 2010, on one particular day I went to three motor vehicle fatalities and all three of the drivers who caused those collisions had significant medical conditions that were a very large part of why that collision happened, in terms of dementia, epilepsy. After going to those fatalities, we worked with ACT policing and asked them what was going on, you know, and the response was that patients were being signed off as fit to drive by the regular medical practitioner when probably they weren't fit but they didn't have any other option at that stage to refer these patients because they had an ongoing therapeutic relationship with them.

33. Dr Parekh went on to explain that the Clinic was established as an independent body that doctors could refer patients to for assessment as to their fitness to drive. The doctors who established the Clinic were providing advice to the RTA prior to the Clinic's formal commencement in 2014. The Clinic started with 50 to 60 patients annually; it is now servicing 900 to 1000. The Clinic secured ongoing government funding in 2017. It is the only such clinic currently operating in Australia.

34. Dr Parekh gave evidence of the problem which may arise for a doctor who reports a patient as potentially unfit to drive. Whilst that doctor may be exempt from prosecution, the therapeutic alliance between the doctor and the patient may well be damaged. The obvious result is that a patient may go elsewhere for advice and effectively be lost to that doctor's oversight. The value of the Clinic is putting that problematic conversation at arm's length from the treating general practitioner. However, involvement of the Clinic is only triggered by a voluntary report, whether it be from a medical practitioner or someone else, such as a police officer or family member.

35. Dr Parekh expressed support for mandatory reporting and provided evidence in relation to the two other such systems presently operating in Australia. In her opinion, the South Australian legislation provided the better example. The proposal is not without its challenges, however.

36. Mandatory reporting may avoid or limit the damage to the therapeutic relationship between doctor and patient, as the medical practitioner relies upon their legal obligation to explain their conduct to the patient. However, even if mandatory reporting is imposed, the scope of that reporting raises a number of issues.

37. The first of these is what is an appropriate trigger for reporting. If it is merely referral for sleep testing, in relation to the condition of sleep apnoea, such tests may take many months to access during which time the driver may be precluded from driving, possibly unnecessarily. This has both social and economic impacts.

38. The second issue is that whilst this inquest is concerned with the particular condition of sleep apnoea, clearly this is only one of a number of conditions which raise questions as to a person's fitness to drive. Any mandatory reporting system would necessarily have to consider a range of possible conditions. To this end, Dr Parekh noted that the South Australian system requires mandatory reporting to the RTA (or its equivalent) in relation to a driver as to whom there is 'reasonable cause to believe that a person might cause injury'. Dr Parekh noted that this could be based upon a number of conditions or factors, including something as simple as an injury to the leg which prevents a driver from using a brake efficiently. Any mandatory reporting system should have regard to functional impacts of any medical condition, whether physical or psychological, as opposed to relying solely upon a referral based on diagnosis.

39. A third issue with mandatory reporting is who will conduct any consequent assessment in relation to a person's fitness to drive. Noting the difficulties that arise from assessment by a treating practitioner, it would appear, based on the evidence of Dr Parekh, and common sense, that an independent assessment is likely to be more reliable. In the Territory context, whilst the inclination is to suggest that this would appropriately sit with the Fitness to Drive Clinic, that has significant implications. The Clinic has seen its work expand exponentially since its establishment. If it were to be responsible for independent assessments in all cases in which questions as to fitness to drive arose, the Clinic may be overwhelmed. To that end, either significantly increased funding for the Clinic, or arrangements whereby there is access to alternative approved independent assessors, may be appropriate. Particularly where the assessment is for the purpose of a commercial driver's licence, it may be that cost is borne either by the licence applicant or the potential employer.

40. Finally, even assuming the mandatory reporting system captures relevant incapacities, the question as to what flows from that is not straightforward. The report may trigger licence suspension, further medical investigation or conditions upon the licence. Nonetheless these are all matters which can be appropriately considered within a framework capable of being drafted if the information is available to the RTA in the first place.

41. Mr Mangeruca of Access Canberra gave evidence that the introduction of a medical declaration requirement in the application form for a commercial license and the introduction of a mandatory medical assessment when upgrading to a heavy vehicle licence were new measures being adopted by the ACT Government and were pending as at June 2021.

42. Following closure of the evidence in this matter, I caused the Coroner's Unit to enquire of Access Canberra as to whether or not those changes had come into effect. The following was received on 9 November 2021 from Ms Rebekah Smith, Practice Leader, Claims, Inquests, Inquiries at the ACT Government Solicitor:

> By way of clarification, consistent with the evidence given by Mr Giuseppe Mangeruca at the hearing of this matter (and a statement Ms Derise Cubin of 12 May 2021 [52]), from 24 November 2021 all people who hold or are applying for a medium rigid (MR), heavy rigid (HR), heavy combination (HC) or multi-combination (MC) driver licence in the ACT will be required to obtain a commercial health assessment at the time of the licence upgrade.

43. Ms Smith also indicated that consideration was being given to the introduction of annual commercial health assessments for those with the types of licence mentioned. These are positive developments but would not necessarily address a situation such as Mr

Livas' wherein he only complained of relevant symptoms outside of his licensing assessment.

44. If medical practitioners were mandated to provide this information to the RTA on an ongoing basis, they may feel less concerned about the impact on their therapeutic alliance with their patients of purely voluntary reporting, even with the protection from liability currently in place.

45. If, as part of any mandatory medical assessment, the medical practitioner is required to review a patient's medical history for a period, for example the last five years, with the obligation on the applicant to authorise access to that information, the practitioner would be far better placed to advise as to applicant's medical condition and any risks associated with it.

46. Reliance on self-report in respect to matters which impact on a person's capacity when their income is at stake is notoriously unreliable. Self-report as a trigger for licence condition or suspension is unlikely. However, if the mandatory obligation lay upon medical practitioners in receipt of information from their patients which raise the question of their capacity to provide that information to the relevant licensing authority, it is likely that many more potentially dangerous drivers would be identified in advance of their involvement in incidents with potentially serious consequences.

Sharing of information

47. As Mr Mangeruca, Dr Parekh and DLSC Laidler all agreed, a pathway for sharing of information relevant to a driver's capacity between their respective organisations, given their obligations to address road safety, would be beneficial. That might be in the form of a memorandum of understanding, or through a legislative pathway if deemed necessary. Given that any discretion in respect to licence suspension or conditions lies with the RTA, this information sharing should not create an obligation on the other recipients to act but might inform any advice to the RTA, or request for assessment from it.

48. Whilst in one sense these proposals may be intrusive to the privacy of licence applicants and somewhat onerous on them, that must be weighed against heightened risk to life posed by the combination of medical unfitness and control of an heavy vehicle. As Mossop J at [56] stated in sentencing Mr Livas:

> As this case illustrates, entirely innocent road users going about routine activities of daily life may suffer death as a result of a lack of competence or capacity on the part of drivers of heavy vehicles. That puts a heavy duty on such drivers to investigate and disclose diagnosed or suspected health conditions which may affect their competence or capacity to drive safely.

Heavy vehicle safety technologies

49. The AFP investigation in this matter concluded that whilst travelling at about 70 kilometres per hour (in an 80 kilometres per hour zone), the truck driven by Mr Livas collided with the stationary Ford in which Blake was a back seat passenger at 09:26:15 am. There were approximately seven vehicles ahead of the Ford. The road surface was dry; it was a fine day. DLSC Laidler calculated that from 69 kilometres per hour, it would take this truck 51 metres to stop once the brake was applied. He added 19.16 metres for reaction time and 9.58 metres for brake lag.

50. I conclude that it would take approximately 100 metres for the truck to stop once the driver became aware of the need to do so if travelling at 69 kilometres per hour. At

09:26:00 am, the Ford was visible and stationary in the same lane as the truck, 326.4 metres ahead. This allowed 300 plus metres and 15 seconds for the truck to stop.

51. This evidence supports the conclusion that Mr Livas applied the brake very late, just before impact.

52. Had the driver been alert and braked sooner, or alternatively had braking occurred autonomously, I find that the collision may have been avoided, or at least considerably less forceful. Whilst there is no specific evidence that addresses the significance of this, as a matter of common sense, Blake's death would have either been avoided, or less likely, if there had been no collision or one with less forceful impact.

53. It is also reasonable to assume that the ordinary driver who was not dozing or distracted (excepting the suicidal or intoxicated) would drive so as to avoid any significant collision with another vehicle, if only in their own self-interest. There is positive evidence in the form of post-collision blood test analyses for ethyl alcohol and prescribed drugs that Mr Livas was not intoxicated (ACTGAL 15 August 2018). There is no evidence that his mental state was such as to indicate suicidal intention. The more likely explanation for his inattention in the circumstances was a micro sleep or distraction. The evidence does not allow a conclusion in favour of one over the other.

54. Being satisfied that the collision occurred due to Mr Livas' inattention, howsoever caused, it is within the scope of this inquest to consider whether collision avoidance technologies may have been beneficial in avoiding or reducing the impact in this case. Of course, this inquiry must be to some extent speculative, retrospective as it is. That in itself does not render consideration of this issue improper.

55. It is necessary to acknowledge the limitations of a coronial inquest to fully address issues of this magnitude. There is an extensive national matrix of organisations whose whole *raison d'etre* is to do just this. This matrix includes State and Territory governments and their relevant departments and instrumentalities, such as the Commonwealth Department of Infrastructure, Transport, Regional Development and Communications, the National Transport Commission, the National Heavy Vehicle Regulator and numerous independent organisations which exist to consider road safety issues.

56. I also acknowledge the difficulty in implementing change in the context of a national regulatory scheme, particularly in a federated system. That said, there is no doubt that coronial findings provide an avenue for illuminating both the very real human cost of inaction and some consideration as to the circumstances of particular cases which might inform those tasked with investigating safety measures and translating what is found into reform through legislation or appropriate standards.

57. There is an extensive range of collision avoidance technology on the market and it is continually developing. That creates a challenge for governments and business in terms of identifying the most beneficial technologies and any requirements for implementation. That said, the role of government mandate is highly significant.

58. To some extent market forces will determine what is in demand and what costs the market can and is prepared to absorb. Private vehicle uptake of collision avoidance technologies exemplifies this. Seat belts, in contrast, are a classic example of the effectiveness of government mandated safety measures.

59. Mr Lauchlan McIntosh, past Chairman of the Australasian New Car Assessment Program (ANCAP 1995-2017), past President of the Australasian College of Road Safety (ACRS 2008-2018) and current Chairman of the Towards Zero Foundation, amongst his many roles, gave the benefit of his extensive experience to this inquest. Based upon his contribution to the inquest, there appears to be good evidence for more extensive adoption of collision avoidance technologies. He observed that Australia is lagging behind other developed countries in this respect. This, he opined, was related to Australia's ageing truck fleet and the associated costs of upgrading vehicles along with the slow pace of regulatory reform.

60. The inquest also benefitted from the assistance of Ms Belinda Hughes, Director of Prosecutions for the National Heavy Vehicle Regulator, who provided useful evidence as to the regulatory system in place nationally. Mr Sal Petroccitto, CEO of the NHVR, provided written evidence, including copies of the 'NHVR Vehicle Safety and Environmental Technology Uptake Plan' June 2020; the 'NHVR Review of Fatigue/Distraction Detection Technology' 4 July 2019 and the 'NHVR Research Report: Phase 2 Fatigue/Distraction Detection Technology Use in the Australian Road Freight Transport Sector' December 2019.

61. The standards for heavy vehicles registered and operated in the Territory are set by the Heavy Vehicle National Law (HVNL) which incorporates the Heavy Vehicle National Standards Regulation. These laws apply nationally and are administered and prosecuted nationally. Until 1 July 2021, the *Motor Vehicles Standards Act 1989* (Cth) governed new vehicles supplied to the Australian market; it is superseded by the *Road Vehicles Standards Act 2018* (Cth) from 1 July 2021. Pursuant to this legislative scheme, there are already a number of mandated vehicle safety technologies, including anti-lock braking systems (ABS) and electronic stability control (ESC).

62. Two particular technologies seem relevant to this situation: autonomous early braking systems (AEB) and fatigue detection and distraction technology (FDDT). Neither is legislatively mandated.

63. In respect to AEB, Mr McIntosh, referring in particular to a study from Monash University, noted that the mandatory implementation of AEB could see a reduction in trauma in fatal and all injury crashes of between 15 to 38 per cent. The Department of Infrastructure, Transport, Cities and Regional Development Regulation Impact Statement 'Reducing Heavy Vehicle Rear Impact Crashes: Autonomous Emergency Braking', August 2019 (AEB RIS), states at page 6:

> Australian research has found that AEB systems meeting the requirements of UN Regulation No.131 could alleviate or reduce the severity of almost 15 per cent of all Australian heavy vehicle crashes, predominantly those involving a heavy vehicle impacting the rear of another vehicle (MUARC, 2019). Moreover, it was found that in such collisions, heavy vehicle AEB reduces all forms of trauma by up to 57 per cent.

64. Europe adopted mandatory regulation of such technology in 2012. The same has been under consideration Australia since at least that time. The AEB RIS recommended mandating this technology but that to date this has not occurred. Mr McIntosh gave evidence that it is likely that AEB will be mandated in all new vehicles by 2022, that is a decade after Europe. Having regard to the evidence before me, I am satisfied that had Mr Livas been driving a truck with an AEB system fitted, Blake may still be alive today.

65. I interpolate that on Friday last, 12 November 2021, a further announcement was made about the federal government's decision to mandate AEB. There is no formal evidence before me in respect to that announcement, although I note that in a Canberra Times article of that date by Peter Brewer, the Trucking Industry Council estimated that it would take until 2050 for 95 per cent of the national heavy vehicle fleet to be fitted with AEB.

66. This supports the conclusion that I had earlier reached that the proposed mandating of AEB for new vehicles only does not address the problem with the existing ageing fleet. It is unlikely that aftermarket technology will become available. Even if the Territory acted alone in mandating that all heavy vehicles sold or registered in the ACT must have AEB fitted, that does not address the problem of interstate vehicles operating in the Territory. I consider the alternative of incentivisation below.

67. In respect to FDDT, I note the evidence of Ms Hughes that fatigue is not only an issue for long drives, although that is the obvious focus of concern. In relation to a person suffering with sleep apnoea, the risk of fatigue even on short drives is very real. In addition this technology addresses the issue of distraction which can occur other than as a result of fatigue.

68. The visit to Seeing Machines, an ACT provider and operator of their FDDT system internationally and locally, provided an insight into the way in which such technology can operate. Apart from the process being explained by staff of that organisation, we were privileged to watch the system in live operation. In short, operators monitored cameras fitted to the cabs of heavy vehicles which are designed to track drivers' eyes and alert both the drivers and the staff monitoring the equipment when the drivers' eyes are not focused appropriately for their task. This might be because they are closed for longer than usual time, indicating drowsiness, or because they are focused away from the road, for example looking at a phone or other item. The system operates such that the driver is physically jolted in order to refocus their attention. The business operator is also notified so that remedial action, if required, can be taken. This is just one example of this type of technology operating out of Canberra and being taken up by trucking companies at various locations around the globe.

69. The Phase 2 NHVR report noted that 'participants argued strongly that FDDT's are a highly positive "game changer" that will enable drivers and operators to better identify and address unsafe driving behaviours prior to accidents'. That report also noted that distraction events occur four times as often as driver fatigue events but that these technologies are capable of addressing both.

70. Counsel for the Territory was critical about reliance on this report to support any recommendation as to mandating FDDT. The limits of the report were detailed in submissions, particularly that the participants in the Phase 2 review did not include any smaller trucking companies and did include only those who had expressed an interest in participating, suggesting a bias in favour of the technology. Ms Hughes gave oral evidence that there is limited evidence about the reliability and validity of FDDT, particularly from independent assessment. The Phase 2 review did conclude that it should not operate as a stand-alone tool for fatigue management but must form part of a wider fatigue management system. Nonetheless the NHVR considered that pilot studies were encouraging as to use of the technology but that further investigation is ongoing.

71. Mr McIntosh also accepted that FDDT is not as advanced technologically as AEB and that it would not be possible to mandate any particular fatigue technology at this stage of its development.

72. Counsel for the Territory noted that there was a question as to whether mandating AEB or FDDT would be effective. In particular, he submitted that the ACT mandating this technology on a stand-alone basis would be inconsistent with the purpose of the HVNL and that may well be inconsistent with Commonwealth law.

73. Recognising the difficulties in achieving a mandate for AEB and FDDT for heavy vehicles in the ACT on a stand-alone basis, incentivisation for heavy vehicle operators to prefer new vehicles with fitted technologies or to upgrade their existing fleet, where possible, may be an important tool in increasing use of these safety technologies on the roads.

74. Incentivisation may take various forms, whether it be tax benefits, preferred contractor status or otherwise. For example, Mr McIntosh gave evidence that National Transport Insurance offers insurance benefits and financial incentives to Australian fleets which have installed FDDT.

75. There may also be benefit in publicising the issues related to available technologies and supporting education of the trucking industry in relation to them. I note the evidence of DLSC Laidler to the effect that following this tragedy, Canberra Sand and Gravel, Mr Livas' employer, had researched new technology vehicles. They decided to replace their ageing fleet with new trucks and had identified one which came fitted with a range of anti-collision technologies. At the time of hearing, they had purchased the first of the new fleet, intending that to be the first of many. There is no doubt that their personal experience motivated that change. Other responsible trucking companies may be similarly motivated if the risks associated with operating their business were reinforced and alternative strategies to avoid those risks eventuating encouraged.

Other issues

76. A number of other issues were touched on in the evidence and submissions. I have no doubt there are other emerging technologies which may provide the potential for increased road safety, but I consider they are beyond the scope of this inquest.

77. In respect to the issue of rumble strips, which was raised late in the evidence and was the subject of submissions by Blake's parents, whilst I accept that as a matter of common sense these road bumps may have been capable of focusing Mr Livas in a similar manner to FDDT, there is insufficient evidence before me to determine their utility in these circumstances. For example, there is a question about how far from an intersection such strips would sensibly be placed, noting that there were seven cars ahead of the Corney's vehicle putting it some distance from the intersection.

78. The issue of pre-employment checks beyond purely medical factors was also raised in submissions. Mr Livas had a poor driving record including a number of criminal convictions. His employer may well have been unwilling to retain him as a driver had they been aware of that history. This raises an issue as to whether the employer of a professional driver ought be able to access their driving record, but that does not relate directly to Mr Livas' driving behaviour on this particular occasion.

Findings

79. Blake Andrew Corney died at Canberra on 28 July 2018 as a result of a fatal head injury sustained as a passenger in a motor vehicle collision that occurred at the intersection of the Monaro Highway and Mugga Lane, Hume in the Australian Capital Territory;

80. His death was caused by the culpable driving of Mr Akis Livas;

81. The issues of public safety that arise in connection with the death of Blake Andrew Corney are:

    (a) the insufficiency of information available to the RTA in respect to medical conditions of commercial drivers holding heavy vehicle licences, and

    (b) the insufficiency of collision avoidance technology in heavy vehicles on roads in the ACT.

Recommendations

82. I make the following recommendations:

    (i) That the Minister for Transport and City Services considers legislative amendment to mandate that health practitioners notify the RTA when the health practitioner has reasonable cause to believe that a patient is suffering from an illness, disability or deficiency that is likely to endanger the public if the patient drives a heavy vehicle at the time of completing a medical assessment in support of a heavy vehicle licence application, and with an ongoing obligation at any point at which the health practitioner is provided with information reasonably causing him or her to form that belief;

    (ii) That if necessary to support recommendation one, the ACT Government continue, and if necessary increase, funding of the Fitness to Drive Medical Clinic;

    (iii) That the ACT Government mandate that independent health examinations be conducted for those applying for certain classes of heavy vehicle licence, including an obligation for the applicant to allow the assessor access to the applicant's medical history for a period deemed appropriate;

    (iv) That the RTA, ACT Police and Fitness to Drive Medical Clinic review their information sharing processes and produce a memorandum of understanding to facilitate information sharing where it would assist with the determination of driver licensing matters in respect to heavy vehicle licences, facilitated by legislative change, if necessary;

    (v) That the ACT Government considers forms of incentivisation that may encourage the uptake by trucking operators in the ACT of vehicles fitted with AEB systems or FDDT, including but not limited to preferencing contractors who have voluntarily adopted such technology and registration discounts;

(vi) That the ACT Government consider funding a public safety campaign informing the community about medical conditions which may affect their driving ability including the requirement to declare these conditions to Access Canberra;

(vii) That the Minister of Transport and City Services pursue the early implementation of the requirement for mandatory AEB systems in heavy vehicles throughout Australia, pursuant to the Memorandum of Understanding for The Effective Delivery of Heavy Vehicle Regulatory Services In The Australian Capital Territory Between The National Heavy Vehicle Regulator And The Australian Capital Territory Road Transport Authority;

(viii) That the Minister of Transport and City Services pursue early consideration of the suitability of fatigue and distraction detection technology for mandating in in heavy vehicles throughout Australia, pursuant to the Memorandum of Understanding for The Effective Delivery of Heavy Vehicle Regulatory Services In The Australian Capital Territory Between The National Heavy Vehicle Regulator And The Australian Capital Territory Road Transport Authority;

(ix) That the Australian Trucking Association be provided with a copy of these findings and be invited to deliver training and education to its members and member associations addressing:

a. the need for drivers and employers to obtain all information about a driver's medical and driving history which may be relevant to a driver's suitability to drive a heavy vehicle; and

b. the availability of collision avoidance technologies including AEB and FDDT and the potential benefits in voluntary adoption of such technologies; and

(x) That the Royal Australian College of Physicians and the Royal Australian College of General Practitioners be provided with a copy of these findings and be invited to deliver training and education to their members regarding the national medical standards for driving.

83. Finally, I acknowledge the enormous cost of this tragedy on all touched by it but particularly Blake's family, for whom there will always be a Blake-sized hole in their hearts.

I certify that the preceding eighty-three [83] numbered paragraphs are a true copy of the findings of her Honour Chief Coroner Walker.

Associate: S Corish

Date: 15 November 2021