

Submission to
Department of the Prime Minister and Cabinet
Consultation: Getting it right – Building AI
infrastructure that works for Australia



Getting it right starts with health

*Essential services, resilience and
the forgotten health profession*

Highlighting why health care and paramedicine
belong in Australia's AI Standards

October 2026

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This submission is made in a personal capacity. The views expressed are the author's own and do not represent the views of any organisation with which the author is associated.

“The ADF must be a force of last resort to aid the civilian community in natural disasters and be called only to provide truly unique capabilities or essential surge capacities when State and Territory responses are genuinely overwhelmed.”

Joint Standing Committee on Foreign Affairs, Defence and Trade
Inquiry into the Department of Defence Annual Report 2021–22
September 2023, Chair’s foreword

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Executive summary

The Consultation Paper from the Department of the Prime Minister and Cabinet (PM&C) names healthcare once, in a glossary entry. It does not name paramedicine, ambulance services or emergency care.

Health is where the Consultation Paper's concerns about energy, siting, connectivity, safety and research meet most directly, and where failure is measured in patient harm. Australia's 28,032 registered paramedics, about 31% of whom work outside jurisdictional ambulance services, and the more than 4.2 million patients treated by ambulance services in 2024–25, depend on the digital infrastructure the AI Standards will influence.

The Consultation Paper justifies AI infrastructure on national security and resilience grounds, yet with Defence now the resource of last resort, the civilian health response that runs on that infrastructure is itself a resilience question. This submission argues that the AI Standards should treat health and emergency care workloads as an essential service rather than one more tenant, and should name the health workforce, regulators and researchers in the mechanisms they create.

The author recommends that the AI Standards:

- A. define a protected class of health-critical workloads, exempt from demand-flexibility curtailment during system stress and scarcity events;
- B. add hospitals, residential aged care facilities, ambulance service centres, and Commonwealth and state urgent care clinics to the sensitive sites for minimum-distance and siting rules;
- C. require large regional and remote data centres to fund community connectivity uplift, prioritising health and emergency service coverage;
- D. define reportable AI incidents to include clinical harm and near misses, with reporting to the health regulators;
- E. include a health and pre-hospital research stream in any compute reservation scheme or public-interest research payment;
- F. set conditions for training on Australian health data, covering consent, onshore governance, interoperability and First Nations data sovereignty;
- G. bring the health portfolio, including paramedicine leadership, into the targeted engagement that runs alongside this consultation; and
- H. require health and emergency service continuity in the critical infrastructure risk programs of data centres hosting those workloads, and recognise ambulance services and paramedics in the national security and resilience framing of the Standards.

Appendix A maps each consultation question this submission answers to the relevant findings, recommendations and sections. The submission does not address the questions on water, skills and training, or the creative and media sectors.

Section A – Introduction

1. This submission responds to the Department of the Prime Minister and Cabinet’s consultation paper *Getting it right: Building AI infrastructure that works for Australia* (September 2026) (the Consultation Paper). It addresses Parts 1, 2 and 3 of the Consultation Paper where they bear on health care, emergency care and paramedicine. Appendix A maps the consultation questions it answers to its findings, recommendations and sections.
2. The author is Adjunct Associate Professor Ray Bange OAM, an independent health policy advisor and curator of The Paramedic Observer (paramedprof.com). He holds an adjunct appointment at Central Queensland University, is an Honorary Fellow of the Australasian College of Paramedicine and the Australian Institute of Paramedic Practitioners, and is an Executive Committee member of the Australian Health Care Reform Alliance.
3. This submission is made in a personal capacity. It may be published with attribution but without contact details.
4. The author notes that the Department may use AI tools to summarise and compare submissions.¹ Each section opens with its key point, and the recommendations are set out in full in Section K.

Section B – Health appears once

5. The Consultation Paper’s only direct reference to health is in its Key Terms definition of a data centre, which lists healthcare among the critical services that data centres host.² No section addresses what those services need from the infrastructure, and it does not mention paramedicine, ambulance services or emergency care.
6. The Consultation Paper treats inference as the lesser opportunity and states that the ‘real step-change’ comes from attracting AI training.³ (Training builds a model; inference is its live use, such as software reading a paramedic’s ECG at the scene and flagging a heart attack.) For health, the order is reversed. Clinical value comes from reliable, sovereign, low-latency use of models, and the consequences of failure are clinical.
7. The omission of the paramedic perspective repeats a pattern in national AI policy. The Australian Alliance for Artificial Intelligence in Healthcare’s third National Policy Roadmap, released in July 2026, names general practitioners, radiologists, physiotherapists and nurses.⁴ The Observer’s search of the published Roadmap found no mention of ‘paramedic’, ‘paramedicine’ or ‘ambulance’ despite the involvement of these groups in times of disaster and extreme events.⁵
8. The author has documented the same pattern across more than a dozen Commonwealth and state inquiries since 2019: paramedicine sits within the stated scope of a framework but is absent from the mechanisms that decide funding, eligibility and delivery. The Observer terms

¹ Department of the Prime Minister and Cabinet (PM&C), *Getting it right: Building AI infrastructure that works for Australia*, Consultation Paper (September 2026) 25, <https://www.pmc.gov.au/sites/default/files/resource/download/ai-consultation-paper.pdf> (accessed 08/10/2026).

² PM&C, Consultation Paper (n 1), 26 (Key terms: ‘Data centre’).

³ PM&C, Consultation Paper (n 1), 4.

⁴ E Coiera, F Magrabi, D Silvera-Tawil, S Tyagi and A Chan, *Don’t Walk. Run. AI in healthcare – The 3rd National Policy Roadmap* (Australian Alliance for Artificial Intelligence in Healthcare, Macquarie University, July 2026), https://research-management.mq.edu.au/ws/portalfiles/portal/538442627/Publisher_version_open_access_.pdf (accessed 08/10/2026).

⁵ The Paramedic Observer, search of published Roadmap for ‘paramedic’, ‘paramedicine’ and ‘ambulance’ (31 August 2026).

this anomaly ‘two doors, one window’.⁶ For example, the Department initially advised a PHN that paramedics were ineligible for the PHN multidisciplinary team grant program (GO 6901), until the author intervened.⁷ In 2023 the Rural Locum Assistance Program did not list paramedicine explicitly as eligible for professional development support.⁸

9. The AI Standards are being drafted now. In the author’s experience, inclusion in a national framework is usually settled at drafting; securing it later has required separate advocacy.⁹

Finding 1

The Consultation Paper recognises healthcare only as a hosted service in its glossary. It does not consider what health and emergency care need from AI infrastructure and, like national AI policy generally, omits paramedicine as a stakeholder.

Section C – The paramedicine workforce

10. Paramedicine has been nationally registered since 1 December 2018. Paramedicine Board of Australia data show 28,032 registered paramedics at 30 June 2026, up 5.4% in a year, with women 53.3% of the profession (Figure 1).¹⁰

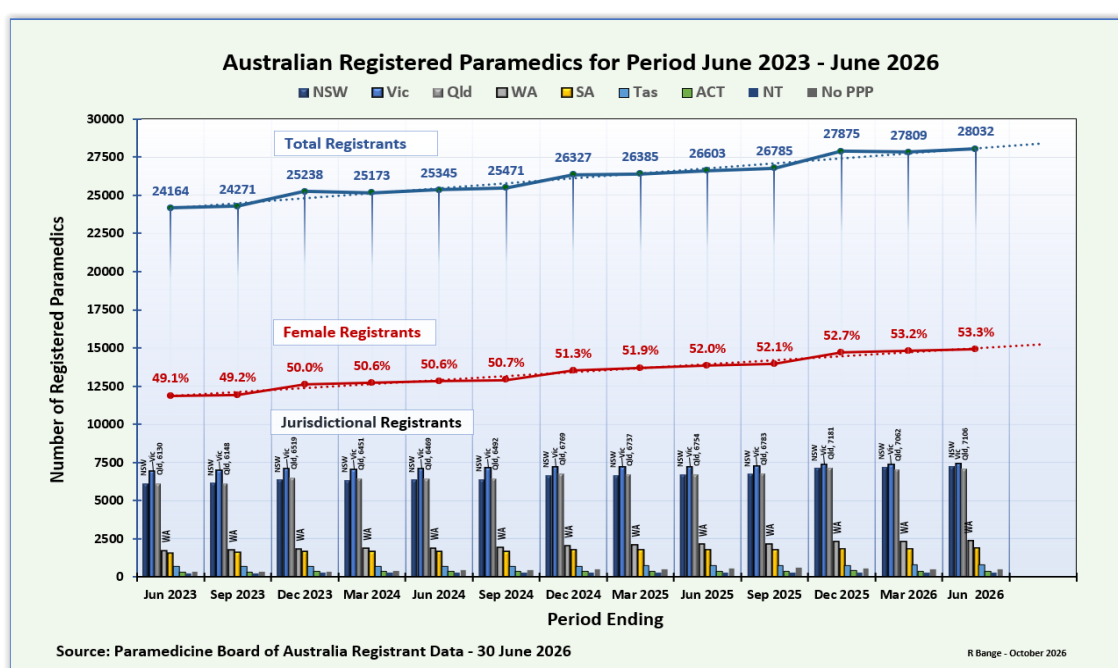


Figure 1 — Registered Paramedics, Number and Jurisdictional Registrants, June 2023 to June 2026

⁶ R Bange, Senate Community Affairs References Committee, Inquiry into the Support at Home Program, Submission 254 (July 2026), para 21. The author’s submission archive, in which this pattern is termed ‘two doors, one window’, is published at paramedprof.com.

⁷ R Bange, Productivity Commission, *Delivering Quality Care: Response to the Interim Report* (September 2025), para 16, recording the Department’s subsequent advice that paramedics are eligible to be commissioned under Grant Opportunity GO 6901 Stream 6.

⁸ R Bange, Introductory Statement, Senate Select Committee on Australia’s Disaster Resilience, Public Hearing, 22/09/2023.

⁹ R Bange, *National Safety and Quality Standards for Virtual Care: The case for explicit consideration of Paramedicine practice settings*, Pre-Consultation Submission to Australian Commission on Safety and Quality in Health Care (July 2026), paras 7 & 81.

¹⁰ Paramedicine Board of Australia, Quarterly Registrant Statistics, 30 June 2026 (28,032 registrants; 26,603 at 30 June 2025), as analysed in The Paramedic Observer, Paramedic Registrations PBA Progressive workbook (October 2026). Earlier analysis to March 2026: R Bange, ACSQHC Pre-Consultation Submission (n 9), para 18 and Figure 1.

11. About 31% of registered paramedics, or an estimated 8,650 practitioners, work outside jurisdictional ambulance services. They work across aged care, primary care, industry and mining, defence, correctional health, universities and private practice (Figure 2).¹¹ Their clinical records and systems sit outside ambulance service infrastructure.

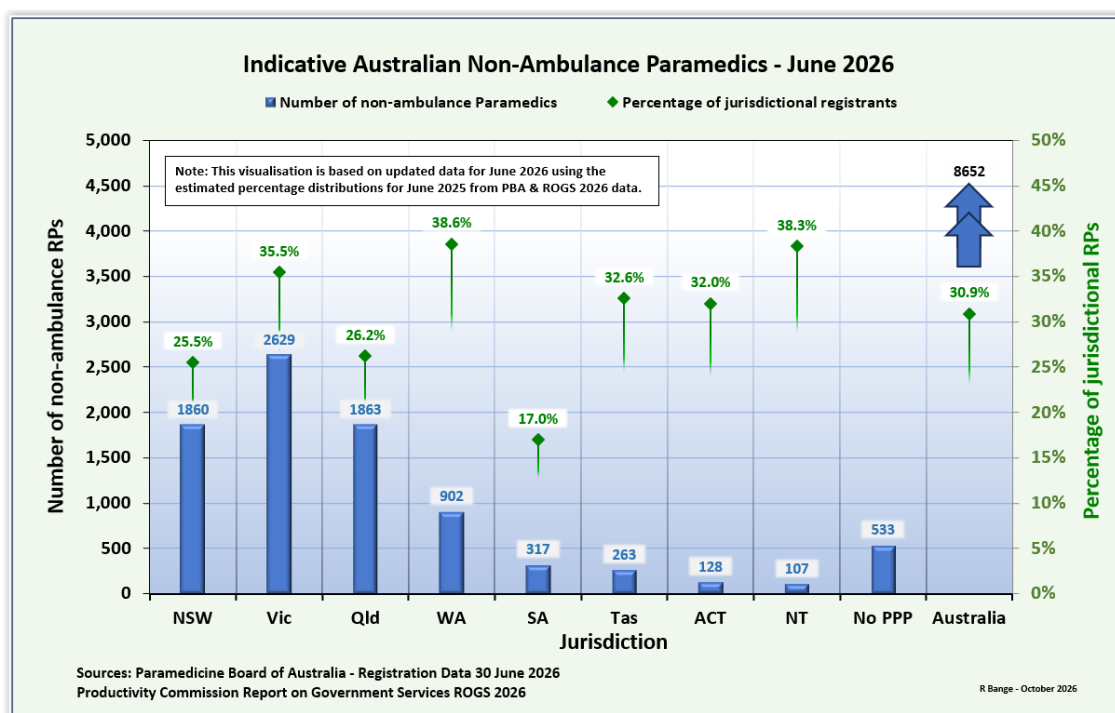


Figure 2 — Indicative Non-Ambulance Paramedics by Jurisdiction, June 2026

12. Emergency responses make up less than half of ambulance service activity. Ambulance services treated more than 4.2 million patients nationally in 2024–25, and the share treated without transport to hospital, while variable, has generally risen in every major jurisdiction since 2020–21 (Figure 3).¹² Each of these encounters is a clinical decision made in the community, often with remote clinical support, and each generates clinical data.
13. More than half of paramedics surveyed nationally work outside major cities, against a rural and regional population share of little more than a quarter.¹³ In many rural and remote communities the local paramedic is the only registered clinician available.

¹¹ Paramedicine Board of Australia, Quarterly Registrant Statistics, 30 June 2026; Productivity Commission, *Report on Government Services 2026*, Part E, Section 11 (Ambulance services), Table 11A.2; as analysed in The Paramedic Observer, Paramedic Registrations PBA Progressive workbook (n 10). Estimates apply June 2025 jurisdictional distributions (30.9% nationally) to June 2026 registrant numbers; registrants with no nominated principal place of practice are counted as non-ambulance.

¹² Productivity Commission, *Report on Government Services 2026*, Part E, Section 11 (Ambulance services), Table 11A.4, <https://www.pc.gov.au/ongoing/report-on-government-services/health/ambulance-services/> (accessed 08/10/2026); R Bange, ACSQHC Pre-Consultation Submission (n 9), paras 21 and 24 and Figure 4.

¹³ R Bange, Opening Statement, Senate Rural and Regional Affairs and Transport References Committee, Inquiry into Rural, Regional and Remote Medicare Access and Funding, Brisbane, 30 July 2026.

14. This is the workforce whose clinical systems, data and decision support will run on the infrastructure the AI Standards influence and support. Yet national workforce and activity datasets routinely miss it.¹⁴

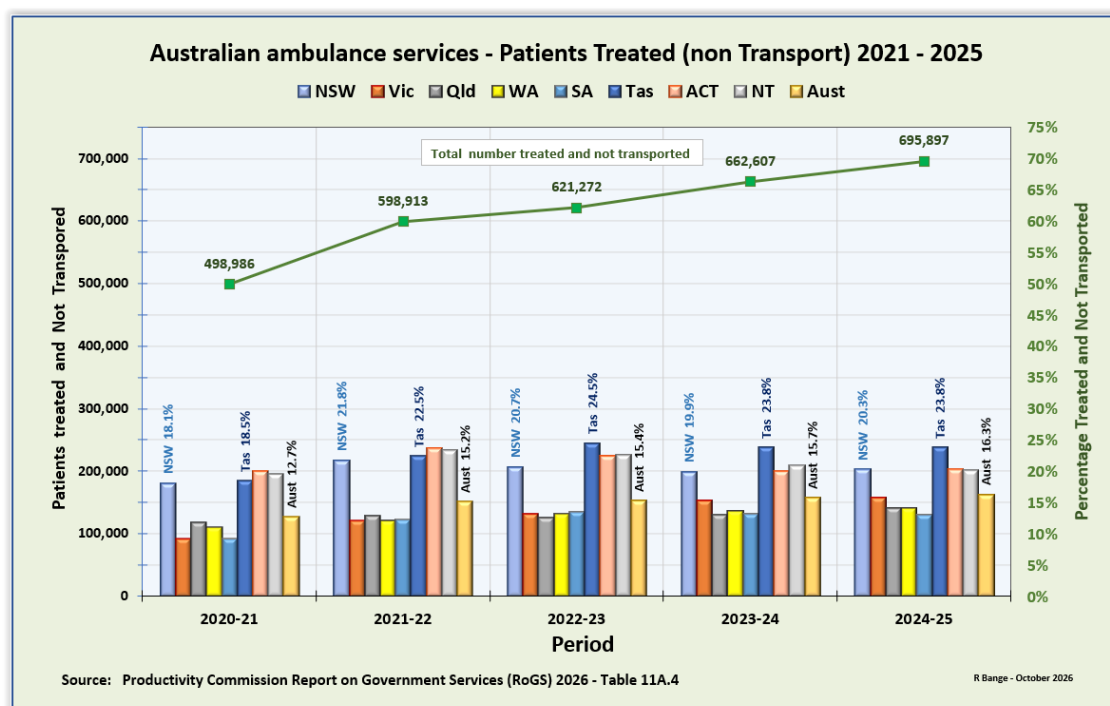


Figure 3 — Ambulance Patient Treatment without Transport, 2020–21 to 2024–25

Finding 2

Paramedicine is a growing registered workforce of 28,032, about 31% of whom work outside ambulance services. Ambulance services treat more than 4.2 million patients a year with nearly 700,000 not taken to hospital. The clinical systems and data of this workforce depend on the infrastructure the AI Standards will influence, yet national health datasets often omit them.

Section D – Demand flexibility must exempt health-critical workloads

15. The Consultation Paper cites Australian Energy Market Operator projections that data centre consumption in the National Electricity Market will rise from about 5 terawatt hours (TWh) in 2025–26 to 34 TWh by 2035–36, or from about 3% to about 13% of grid supply.¹⁵ It proposes demand flexibility and asks whether flexibility should be required during specified stress and scarcity events, and whether non-renewable backup generation should be restricted.¹⁶

¹⁴ R Bange, Joint Select Committee on Northern Australia, Inquiry into Workforce Development in Northern Australia, Supplementary Submission (December 2023); R Bange, Submission to the Time-Tiered Primary Care Working Group, MBS Review Advisory Committee, *Empty seats at the table* (September 2026), paras 44–46.

¹⁵ PM&C, Consultation Paper (n 1), 10, citing Australian Energy Market Operator, *2026 Electricity Statement of Opportunities*.

¹⁶ PM&C, Consultation Paper (n 1), 17.

16. System stress and emergency health demand often peak together, because events like heatwaves drive both. A Queensland study of Triple Zero calls from 2010 to 2019 found ambulance calls rose 12.68% during heatwaves, with lag effects lasting at least 10 days.¹⁷
17. A companion study from the same decade found ambulance attendances rose 9.3% on heatwave days.¹⁸ A systematic review found significant increases in mortality and in hospital, emergency department and ambulance demand during Australian heatwaves.¹⁹
18. A data centre that hosts computer-aided dispatch, electronic patient care records (ePCRs), hospital clinical systems or telehealth platforms cannot curtail those workloads when demand on them is highest. A blanket flexibility obligation, or a blanket ban on non-renewable backup generation, would put them at risk.
19. Existing law does not settle the question. The *Security of Critical Infrastructure Act 2018* (SOCI Act) captures data centres serving government or other critical infrastructure assets, and the Consultation Paper notes that reforms to those definitions are under way.²⁰ Whether ambulance data and dispatch systems fall within scope depends on how each service is constituted and contracted. The systems used by private sector providers and by the non-ambulance workforce described in Section C are even less likely to be covered.
20. The author has previously submitted that system integrity and interoperability are paramount for community-based care, with key patient data regularly copied to backup systems to guard against failure or compromise.²¹ The AI Standards should make that an operator obligation for health-critical workloads (Recommendation A).

Finding 3

Grid stress and emergency health service demand often peak together during heatwaves. A uniform demand-flexibility obligation, or a blanket restriction on backup generation, would put health-critical workloads at risk, and existing law does not reliably protect them.

Section E – Disaster resilience, defence and the health response

21. The Consultation Paper justifies AI infrastructure as essential to national security and resilience, and positions Australia as a trusted Five Eyes infrastructure partner.²² It does not ask whether the health and emergency response that runs on that infrastructure is adequately supported and itself resilient.
22. Commonwealth emergency management now plans for compounding crises. The Department of Home Affairs and the National Emergency Management Agency (NEMA) recorded that in

¹⁷ HM Mason, JC King, AE Peden, K Watt, E Bosley, G FitzGerald, J Nairn, L Miller, N Mandalios and RC Franklin, 'Determining the Impact of Heatwaves on Emergency Ambulance Calls in Queensland: A Retrospective Population-Based Study' (2023) 20(6) *International Journal of Environmental Research and Public Health* 4875. Open access: <https://researchonline.jcu.edu.au/78365/> (accessed 08/10/2026).

¹⁸ HM Mason et al, 'Ambulance Attendance in the State of Queensland, Australia: Exploring the Impacts of Heatwaves Using a Retrospective Population-Based Study' (2025) *Prehospital and Disaster Medicine*, doi:10.1017/S1049023X25101192. Open access: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC12237701/> (accessed 08/10/2026).

¹⁹ HM Mason, JC King, AE Peden and RC Franklin, 'Systematic review of the impact of heatwaves on health service demand in Australia' (2022) *BMC Health Services Research*. Open access: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9336006/> (accessed 08/10/2026).

²⁰ *Security of Critical Infrastructure Act 2018* (Cth); PM&C, Consultation Paper (n 1), 5.

²¹ R Bange, *Delivering Quality Care* (n 7), response to Draft Recommendation 3.1, item (d).

²² PM&C, Consultation Paper (n 1), 1 and 3.

- 2022 Australia faced damaging floods, cyclones and storms in every month, often in several jurisdictions at once, while millions of Australians were affected by cyber-attacks and communities were still managing COVID-19.²³
23. The heat, flood and fire events that drive emergency services and ambulance demand also threaten the power, networks and data centres concentrated in a few discrete locations. The risk is concurrent failure, not only competition for electricity. NEMA advised the Senate Select Committee on Australia's Disaster Resilience, chaired by Senator Jacqui Lambie (the Lambie Committee), that national arrangements must prepare for '*consecutive, concurrent and compounding events*'.²⁴
 24. Digital failure becomes emergency-access failure. In September 2025, a network firewall upgrade blocked Optus customers' Triple Zero calls in South Australia, Western Australia and the Northern Territory for more than 10 hours. About 600 calls were potentially affected, and four deaths were initially linked to the outage. That failure followed a November 2023 Optus outage for which a review had made 18 recommendations in March 2024.²⁵ Infrastructure carrying dispatch, ePCRs and clinical decision support is exposed to the same class of failure.
 25. Defence cannot fill the gap. The Joint Standing Committee on Foreign Affairs, Defence and Trade reported in 2023 that Defence had committed more than 35,000 of its roughly 62,000 personnel to domestic disaster relief since 2019. It noted that the COVID-19 medical response was sustained on a proportionally small capability, and that reservists who are first responders or critical medical practitioners often stayed in their civilian roles during crises.²⁶
 26. The Joint Standing Committee concluded that the ADF must be a force of last resort, and warned that over-reliance on the ADF gives adversaries an opening for hostile cyber, kinetic or hybrid action.²⁷ Government has agreed in principle that Defence be the force of last resort, and Home Affairs has sought alternative Commonwealth crisis capabilities, noting that the same people are often counted twice as volunteers, reservists, nurses and doctors.²⁸
 27. Civilian health surge capacity, and the digital systems it relies on, are therefore a national security matter. The author's 2023 submission to the Lambie Committee recommended Commonwealth recognition and funding of ambulance services as an essential component of community health services and disaster response. It also recommended national accreditation of paramedic services, legislative provision for joint training, interoperability exercises and

²³ Department of Home Affairs and NEMA, *Alternative Commonwealth Capabilities for Crisis Response* (August 2023), 8, <https://www.homeaffairs.gov.au/reports-and-pubs/files/alternative-clth-capabilities-crisis-response.pdf> (accessed 08/10/2026).

²⁴ Senate Select Committee on Australia's Disaster Resilience (Chair: Senator Jacqui Lambie), *Boots on the ground: Raising resilience*, Final Report (August 2024), para 4.23, https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Disaster_Resilience/DisasterResilience/Report (accessed 08/10/2026), quoting Mr Joe Buffone, NEMA, Committee Hansard, 14 March 2023.

²⁵ 'How an Optus upgrade turned into a triple zero disaster', *Illawarra Mercury* (AAP, 21 September 2025), <https://www.illawarramercury.com.au/story/9071156/how-an-optus-upgrade-turned-into-a-triple-zero-disaster/> (accessed 08/10/2026); 'Optus pledges full review as triple-zero deaths mount', *1News* (AAP, 21 September 2025), <https://www.1news.co.nz/2025/09/21/optus-pledges-full-review-as-triple-zero-deaths-mount> (accessed 08/10/2026).

²⁶ Joint Standing Committee on Foreign Affairs, Defence and Trade, *Inquiry into the Department of Defence Annual Report 2021–22* (September 2023), paras 4.10–4.13, https://www.aph.gov.au/search/url/Inquiry/26747_68 (accessed 08/10/2026).

²⁷ Joint Standing Committee on Foreign Affairs, Defence and Trade (n 26), Chair's foreword, iv–v, and para 4.20.

²⁸ Department of Home Affairs and NEMA (n 23), 2 (Minister's Foreword) and 7.

- personnel interchange between public and private services, universities and the ADF, and a review of how the ADF engages paramedics.²⁹
28. The author's submission estimated that about a third of registered paramedics worked outside ambulance services and were not mobilised as surge capacity. It also noted that the ADF's Reserve paramedic role required current employment with a state ambulance service, thereby excluding that cohort from participation.³⁰ By June 2026 the cohort had grown to about 8,650 (Section C).
 29. In evidence to the Lambie Committee, the author proposed that the ADF should remain a resource of last resort; that Australia needs a civilian disaster health reserve larger than the AUSMAT and DART teams; and that outsourcing at local and regional levels has eroded public-sector surge capacity.³¹ The Committee's final report agreed that the ADF should be called on only in extremis, and recorded NEMA's aim to '*fully utilise all capabilities across civil society*' before Commonwealth engagement.³²
 30. The Committee warned that continued reliance on the ADF is not sustainable '*in the context of a world where more frequent disaster events are commonplace*'.³³ Its alternatives centred on volunteers, veterans and a possible National Guard. The registered health workforce that already attends to patients during heat, flood and fire remained in the background. The AI Standards should not repeat that omission.
 31. Comparable jurisdictions plan explicitly for failures that may cascade from one system to another, such as a power outage that takes down a data centre and, with it, emergency services and ambulance dispatch. Canada's Emergency Management Strategy names critical infrastructure interdependence as a driver of rising disaster losses. Applying that proactive Strategy, Prince Edward Island assessed the hazard risks facing each of its 44 publicly operated health facilities.³⁴ Australia has no equivalent national requirement for the digital systems on which ambulance services and community-based paramedics depend, and the AI Standards could close that gap.
 32. The Lambie Committee concluded that the Commonwealth's capabilities and national capacity must be enhanced to reduce reliance on the ADF.³⁵ The AI Standards can contribute to that capability. They should require large data centres hosting health-critical, Triple Zero-linked or emergency-service workloads to include health and emergency service continuity in their SOCI risk management programs, and to test it in joint exercises with ambulance services and emergency management agencies. The Standards should also recognise ambulance services and the registered paramedic workforce in their national security and resilience framing (Recommendation H).

²⁹ R Bange, *Enhancing Resilience: mobilising the forgotten health profession*, Submission to the Senate Select Committee on Australia's Disaster Resilience (March 2023), Recommendations 9, 10, 14 and 15 and Findings 9–13.

³⁰ R Bange, *Enhancing Resilience* (n 29), 15 and 18–19 and Findings 12–14.

³¹ R Bange, Introductory Statement (n 8).

³² Senate Select Committee on Australia's Disaster Resilience (n 24), paras 4.1, 4.23 and 4.25–4.27.

³³ Senate Select Committee on Australia's Disaster Resilience (n 24), para 4.1.

³⁴ Public Safety Canada, *Emergency Management Strategy for Canada: Toward a Resilient 2030* (2019), Context and Priority 2, <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/mrgncy-mngmnt-strtgvy/index-en.aspx> (accessed 08/10/2026).

³⁵ Senate Select Committee on Australia's Disaster Resilience (n 24), para 4.26 (Committee view).

Finding 4

Data centres are presented as key national security infrastructure, yet the health and emergency response that runs on them may face the same compounding crises. Defence is to be a resource of last resort, yet the civilian paramedic workforce that could provide health surge capacity is neither recognised nor fully mobilised.

Section F – Siting and connectivity: the rural paramedicine case

33. The Consultation Paper asks whether data centres should sit a minimum distance from sensitive sites such as schools or residential homes, and whether proponents should help uplift community telecommunications.³⁶ Hospitals, residential aged care facilities, ambulance service centres, and Commonwealth and state urgent care clinics should be added to that list (Recommendation B). Their energy and water supply matters most during heat and drought, and their occupants are most exposed to construction traffic, construction and operational noise, and local heat.
34. The Consultation Paper also notes that AI training facilities do not need to be near population centres, so they are likely to be built at regional and remote sites, the same areas where telehealth and paramedic connectivity is likely to be weakest. Rural and remote paramedics depend on connectivity for telehealth consultation, ePCR transmission and escalation into virtual care.
35. The author told the Senate in March 2026 that telehealth expansion must be matched by reliable connectivity, and that connectivity limitations remain a significant barrier across remote Australia.³⁷ His submission to the Australian Commission on Safety and Quality in Health Care called for minimum connectivity, and offline and backup protocols, for paramedic-facilitated virtual care in rural, remote and First Nations communities.³⁸
36. Demand for that connectivity is growing as more remote clinicians rely on it. Non-medical primary care providers funded through the Workforce Incentive Program Practice Stream, including paramedics, grew 52% in very remote communities between 2020 and 2023, more than three times the 15% national average.³⁹
37. Evidence to the Lambie Committee made the same point about rural capacity in disasters. Sandpiper Australia submitted that *'an established network of rural responders across each State and Territory provides a ready-made disaster response network'*, more robust and immediate than relying on the ADF alone.⁴⁰ Rural paramedics are part of that network, and in a disaster it works only as well as its connectivity.
38. Community paramedicine depends on the same infrastructure. The 2026 Wilkinson-Stokes cost-benefit analysis of community paramedics found a positive net benefit in 97% of

³⁶ PM&C, Consultation Paper (n 1), 18–19.

³⁷ R Bange, *Medicare Support for Rural, Regional and Remote Health: A Paramedicine Perspective*, Submission to the Senate Rural and Regional Affairs and Transport References Committee (March 2026), Executive Summary and Recommendation 5.

³⁸ R Bange, ACSQHC Pre-Consultation Submission (n 9), Recommendation 5 and para 76.

³⁹ Department of Health and Aged Care, *Review of General Practice Incentives*, Expert Advisory Panel Report (September 2024), 63, as presented in R Bange, ACSQHC Pre-Consultation Submission (n 9), para 73 and Figure 6.

⁴⁰ Senate Select Committee on Australia's Disaster Resilience (n 24), para 4.22, quoting Sandpiper Australia, Submission 140, 7.

bootstrap replications, although the confidence interval crossed zero.⁴¹ Models of this kind need reliable connectivity to clinical systems. Large regional and remote data centres therefore should be required to fund improved local connectivity as a community benefit, with priority for health and emergency service coverage (Recommendation C).

Finding 5

Hospitals, aged care facilities, ambulance service centres and urgent care clinics are not among the Consultation Paper's listed sensitive sites. Regional AI training sites will likely coincide with the connectivity gaps on which rural paramedicine and virtual care depend.

Section G – Reportable AI incidents must include clinical harm

39. Frontier AI developers (the companies building the most advanced general-purpose AI models) that are authorised to train in Australia will be required to disclose defined reportable AI incidents to relevant authorities, and the Consultation Paper refers to harms, particularly to vulnerable cohorts.⁴² It does not say which authorities, or whether clinical harm is in scope.
40. AI applications are already being developed across the out-of-hospital and pre-hospital pathways, as outlined in a scoping review of AI and machine learning in pre-hospital emergency care, led from Monash University and the University of Adelaide. The review mapped applications across dispatch, triage, prediction and on-scene decision support.⁴³ When an AI tool gets it wrong in these settings, the patient feels the effect within minutes, often before a hospital or specialist clinician is in a position to notice the error.
41. Remote clinical support for paramedics already distinguishes clinical direction, where a remote clinician issues orders the paramedic executes, from clinical support, where the paramedic remains the treating clinician.⁴⁴ AI decision support adds a third party to that encounter. Incident reporting therefore needs to record which party, human or model, helped shape the decision, and how.
42. The definition of a reportable AI incident should include clinical harm and clinical near misses. Reports should reach the Therapeutic Goods Administration for software as a medical device, the Australian Commission on Safety and Quality in Health Care for safety and quality, and Ahpra where registered practitioners are affected (Recommendation D).

Finding 6

The Consultation Paper does not say whether reportable AI incidents include clinical harm, or which authorities receive reports, although AI is already being developed and applied across the pre-hospital pathway and in virtual care.

⁴¹ Wilkinson-Stokes, McDermott, Yap, Tew, Makrides, Bange, Tran, Braitberg, Gerditz and Crellin, 'Cost-benefit analysis of community paramedics in an ambulance service' (2026) *Australasian Emergency Care* (in press), doi:10.1016/j.auec.2026.08.003.

⁴² PM&C, Consultation Paper (n 1), 21.

⁴³ ML Chee et al, 'Artificial intelligence and machine learning in prehospital emergency care: A scoping review' (2023) 26(8) *iScience* 107407. Open access: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10440716/> (accessed 08/10/2026).

⁴⁴ R Bange, ACSQHC Pre-Consultation Submission (n 9), Recommendation 2 and paras 52–59.

Section H – Compute for public-interest health research

43. The Consultation Paper proposes that frontier AI developers training in Australia contribute to Australian research and innovation. Its options include a compute reservation scheme, under which developers would set aside some of their computing capacity for Australian research and public-interest use, and a public-interest research payment. It also asks which indicators would best show that contribution.⁴⁵ This is the clearest opportunity for health.
44. Pre-hospital care generates large, under-used datasets: dispatch records, ePCRs and linked hospital outcomes. Reserved compute could support deterioration and triage models, demand forecasting, and Australian-trained clinical language models.
45. The data foundation is missing. In March 2026, the author recommended a national out-of-hospital care data framework capturing public and private paramedic service activity, community interventions, patient outcomes and avoided hospitalisations.⁴⁶ The Australian Institute of Health and Welfare's planned National Primary Health Care Data Collection names allied health and urgent care clinics as possible future scope, but not paramedicine.⁴⁷
46. Eligibility rules that name '*health and medical research*' in general terms will likely default to the longer established disciplines. The author's 2026 evidence to the Senate and to the Tasmanian Legislative Council traces paramedicine's repeated omission to the absence of a paramedicine leadership role inside health departments.⁴⁸ A health and pre-hospital stream should name university paramedicine programs and ambulance services as eligible partners alongside medicine and nursing (Recommendation E).

Finding 7

Compute reservation is the Consultation Paper's clearest opportunity for health inclusion. Pre-hospital research lacks a national data foundation, and generic eligibility rules will likely default to the longer established disciplines.

Section I – Training on Australian health data

47. The conditions proposed for AI training cover national security, local capability and the creative sector. They do not address training on health data, which are among the most sensitive personal information that Australians hold.
48. The Alliance's Roadmap recommends Australian-controlled generative AI capability, optimised for local healthcare needs and governed within Australia.⁴⁹ The AI Standards are the natural place to set the conditions on which frontier labs training onshore may use Australian clinical data, including consent, de-identification, onshore storage and the return of benefit to the health system.

⁴⁵ PM&C, Consultation Paper (n 1), 22–23.

⁴⁶ R Bange, *Medicare Support for Rural, Regional and Remote Health* (n 37), Recommendation 8, para 109.

⁴⁷ R Bange, *Empty seats at the table* (n 14), para 45, citing Australian Institute of Health and Welfare, 'Developing a National Primary Health Care Data Collection' (webpage, aihw.gov.au).

⁴⁸ R Bange, *What would a Chief Paramedic Officer do?*, Supplementary Brief to the Senate Rural and Regional Affairs and Transport References Committee (5 August 2026), https://paramedprof.com/wp-content/uploads/2026/08/RRAT_CPO_Brief_Bange_5Aug2026.pdf (accessed 08/10/2026); R Bange, *Inquiry into the Financial and Operational Performance of the Department of Health: The underutilised efficiency benefits of Paramedicine*, Submission to the Legislative Council Sessional Committee Government Administration A, Parliament of Tasmania (September 2026).

⁴⁹ Coiera et al (n 4).

49. Paramedic ePCRs are not fully integrated with My Health Record in any jurisdiction.⁵⁰ The Australian Digital Health Agency's National Framework for Digital Health Standards sets conformance architecture for FHIR and SNOMED CT, and the Agency has noted that consistent clinical terminology underpins the safe use of AI.⁵¹ If paramedic records stay outside that architecture, Australian health models will be trained and validated without the out-of-hospital record, and the profession will be left without the tools built on them.
50. The Consultation Paper raises First Nations interests only in relation to community engagement on siting.⁵² Health data about Aboriginal and Torres Strait Islander people raises data sovereignty questions in its own right, which belong in the training conditions (Recommendation F).
51. The workforce that collects much of this data does not yet reflect the communities it serves. Aboriginal and Torres Strait Islander people make up 2.31% of registered paramedics (647 practitioners at 30 June 2026), against 3.8% of the population (Figure 4).⁵³ In the Northern Territory the gap is widest: 3.94% of registrants, against 30.8% of the population. Data governance cannot rely on workforce composition to carry cultural safety, which strengthens the case for explicit sovereignty conditions.

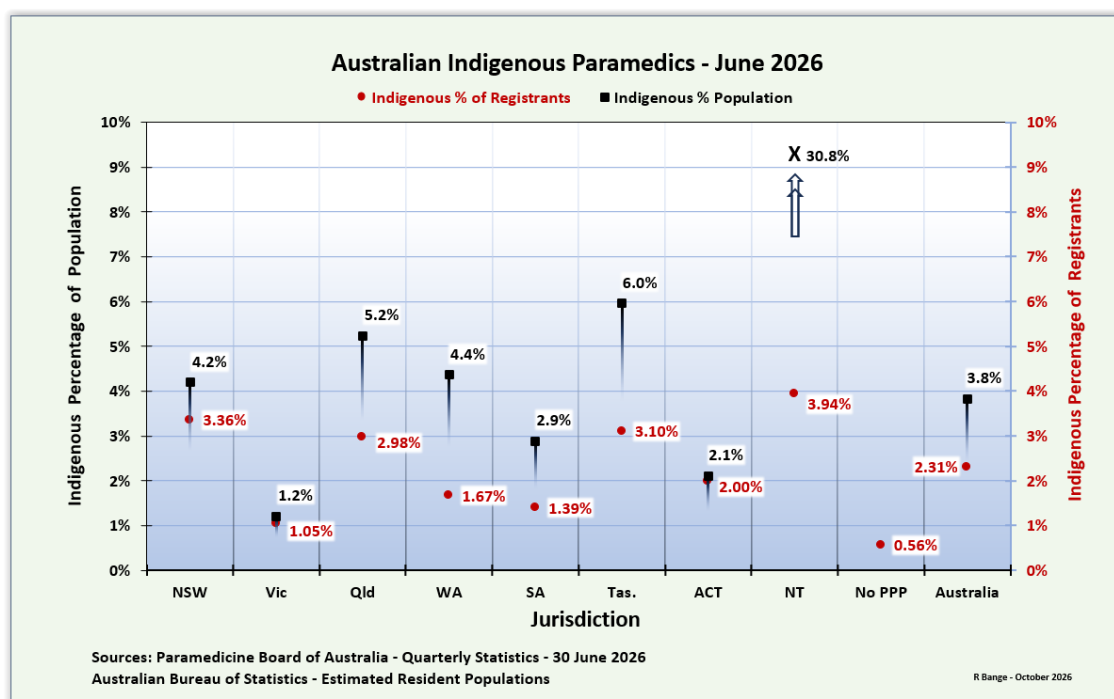


Figure 4 — Indigenous Paramedics as a Share of Registrants and Population, June 2026

⁵⁰ R Bange, ACSQHC Pre-Consultation Submission (n 9), paras 65–69, noting that ambulance and prehospital electronic patient care records are not fully integrated into My Health Record in any Australian jurisdiction.

⁵¹ Australian Digital Health Agency, *National Framework for Digital Health Standards* (May 2026), <https://www.digitalhealth.gov.au/digital-health-standards/national-framework-for-digital-health-standards> (accessed 08/10/2026).

⁵² PM&C, Consultation Paper (n 1), 17–18; see also R Bange, ACSQHC Pre-Consultation Submission (n 9), para 77, on the First Nations Expert Committee on Health System Metrics established under the National Health Reform Agreement 2026–2031.

⁵³ Paramedicine Board of Australia, Quarterly Registrant Statistics, 30 June 2026; Australian Bureau of Statistics, *Estimates of Aboriginal and Torres Strait Islander Australians*, 30 June 2021 (released 31 August 2023); as analysed in The Paramedic Observer, Paramedic Registrations PBA Progressive workbook (n 10).

Finding 8

The training conditions do not adequately address health data. Paramedicine records currently sit outside national digital health standards, and First Nations data sovereignty is raised only in relation to siting.

Section J – Who sits at the table

52. The Consultation Paper says targeted stakeholder engagement will run alongside this consultation. The risk is that health, and paramedicine within it, is again left out.
53. In September 2026 the author recorded that the MBS Time-Tiered Primary Care Working Group consulted six organisations, none from allied health or paramedicine. No paramedicine body sits on the Strengthening Medicare Implementation Oversight Committee, although allied health, nursing, pharmacy and consumer bodies do.⁵⁴
54. A parallel Senate inquiry into AI and data centres reports on 16 November 2026, giving government a second body of evidence to draw on.⁵⁵
55. The Department of Health, Disability and Ageing, ambulance services and paramedicine leadership should be included in targeted engagement on the AI Standards. A Chief Paramedic Officer within the Commonwealth health department would make this level of engagement routine rather than exceptional (Recommendation G).

Finding 9

Recent Commonwealth health consultations have left paramedicine bodies out. Targeted engagement on the AI Standards risks doing the same and highlights the value of having a Commonwealth Chief Paramedic Officer.

⁵⁴ R Bange, *Empty seats at the table* (n 14), paras 5–7 and 14–15.

⁵⁵ Senate Environment and Communications References Committee, Inquiry into Artificial intelligence and data centres (reporting date 16 November 2026), https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Aldatacentres48P (accessed 08/10/2026).

Section K – Recommendations

56. The AI Standards will decide where large data centres sit, how they behave under grid stress, what they owe the communities around them and what frontier labs give back. Each of those decisions affects the delivery of health and emergency care. Naming health-critical workloads, health sites, health regulators and health researchers in the Standards costs little now and avoids a retrofit later.
57. The author recommends that the AI Standards:

Recommendation A

Define a protected class of health-critical workloads, covering ambulance dispatch and Triple Zero-linked systems, electronic patient care records, hospital clinical systems and telehealth platforms. Exempt that class from demand-flexibility curtailment during system stress and scarcity events, and require operators hosting it to show continuity and backup arrangements in their compliance plans.

Recommendation B

Add hospitals, residential aged care facilities, ambulance service centres, and Commonwealth and state urgent care clinics to the sensitive sites for minimum-distance and siting rules.

Recommendation C

Require large regional and remote data centres to fund community connectivity uplift as a mandatory community benefit, with priority for health and emergency service coverage.

Recommendation D

Define reportable AI incidents to include clinical harm and clinical near misses, with reporting to the Therapeutic Goods Administration, the Australian Commission on Safety and Quality in Health Care and Ahpra where relevant.

Recommendation E

Include a health and pre-hospital research stream in any compute reservation scheme or public-interest research payment, naming university paramedicine programs and ambulance services as eligible partners, and support a national out-of-hospital care data framework as its foundation.

Recommendation F

Set conditions for training on Australian health data covering consent, de-identification, onshore governance, interoperability with national digital health standards (including paramedic records), and First Nations data sovereignty.

Recommendation G

Bring the Department of Health, Disability and Ageing, ambulance services and paramedicine leadership into the targeted stakeholder engagement on the AI Standards.

Recommendation H

Require large data centres hosting health-critical, Triple Zero-linked or emergency-service workloads to include health and emergency service continuity in their SOCI risk management programs and to test it in joint exercises with ambulance services and emergency management agencies. Recognise ambulance services and the registered paramedic workforce in the national security and resilience framing of the AI Standards, consistent with Defence's role as the resource of last resort.

Appendix A – Summary response to the consultation questions

The following table maps the consultation questions this submission answers, by their page in the PM&C Consultation Paper, to its findings, recommendations and sections.⁵⁶ The submission does not address the questions on water, skills and training, or the creative and media sectors.

Consultation question	Paper page	Submission finding	Recommendation	Section
Does a tiered approach sufficiently capture different types of facilities and ensure proportionate obligations?	8	3	A	D
How should governments anticipate and respond to large loads that become operational faster than new generation?	9	3	A	D
What unintended consequences should be considered in designing a renewable electricity framework?	13	3	A	D
What flexibility requirements should apply, including restrictions on non-renewable backup generation and system stress events?	17	3	A	D
Are there other significant potential costs from data centre activity, and how might accountability be provided?	17	2, 3, 4	A, H	C, D, E
Should data centres be required to locate a minimum distance from sensitive sites?	18	5	B	F
Should proponents be required to uplift community telecommunications connectivity?	19	5	C	F
What information should AI developers share with government, and what safeguards should apply?	22	6, 8	D, F	G, I
What contributions and mechanisms (including a compute reservation scheme) would add greatest value, on what terms, and with what indicators?	22–23	7	E	H
Where might federal reporting and transparency requirements interact with existing legislation?	24	3, 4, 6, 8	A, D, F, H	D, E, G, I
Engagement with stakeholders alongside the consultation	2, 25	1, 9	G	B, J

⁵⁶ PM&C, Consultation Paper (n 1). Page references in this table are to that paper.

Appendix B – Abbreviations

Abbreviation	Meaning
ACSQHC	Australian Commission on Safety and Quality in Health Care
ADF	Australian Defence Force
Ahpra	Australian Health Practitioner Regulation Agency
AI	Artificial intelligence
AUSMAT	Australian Medical Assistance Teams
COVID-19	Coronavirus disease 2019
DART	Disaster Assistance Response Team
ECG	Electrocardiogram
ePCR	Electronic patient care record
FHIR	Fast Healthcare Interoperability Resources
GO	Grant Opportunity (Commonwealth grant program identifier)
Lambie Committee	Senate Select Committee on Australia's Disaster Resilience
MBS	Medicare Benefits Schedule
NEMA	National Emergency Management Agency
No PPP	No nominated principal place of practice (registration data)
OAM	Medal of the Order of Australia
PBA	Paramedicine Board of Australia
PHN	Primary Health Network
PM&C	Department of the Prime Minister and Cabinet
ROGS	Report on Government Services (Productivity Commission)
SNOMED CT	Systematized Nomenclature of Medicine – Clinical Terms
SOCI	<i>Security of Critical Infrastructure Act 2018 (Cth)</i>
TWh	Terawatt hours