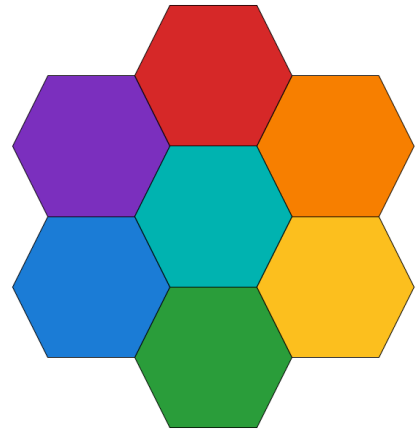


Submission to the
Australian Medical Research
Advisory Board (AMRAB)



**MRFF Australian Medical Research
and Innovation Strategy 2026–2031
and Priorities 2026–2028:
*A Paramedicine Perspective***

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Executive summary

This submission responds to the Australian Medical Research Advisory Board's (AMRAB) consultation on the draft Australian Medical Research and Innovation Strategy 2026–2031 and draft Australian Medical Research and Innovation Priorities 2026–2028.¹

It argues that paramedicine — a nationally registered health profession since 2018 — remains structurally under-recognised within the national health and medical research funding architecture.

The submission responds to all sixteen consultation survey questions, identifies where progress has occurred, where the gap persists, and recommends how the 2026–2028 Priorities can offer the best outcomes for patients by examining new and modified areas of research in which paramedicine has both been involved at the workplace and is increasingly engaged.

The strongest evidence is offered on embedding research in the health system, the skilled and sustainable research workforce, exploring the determinants of health, integrated digital health systems, AI in research and health systems, and health impacts from environmental factors.

The central message is straightforward: as part of the health system, paramedicine does not require a new MRFF priority; it needs to be explicitly included in the priorities that already exist. Explicit recognition of paramedicine, paramedic-led care and the out-of-hospital health system would ensure that the MRFF's existing commitments to research impact, integrated care, equity, digital health and a skilled research workforce extend across the health domain.

The recommendations therefore seek not to broaden the MRFF's scope, but to ensure that its existing priorities deliver what is needed for the patients and communities served by paramedics.

¹ *Consultation on Medical Research Future Fund (MRFF) Australian Medical Research and Innovation Strategy and Priorities*, Department of Health, Disability and Ageing, consultations.health.gov.au, open 17 July – 16 August 2026.

1. This submission

1. For nearly two decades, the author has been closely involved with paramedicine and more general health policy: including as Principal Policy Advisor to the professional body during the development of national paramedic registration and as curator of the social media channel The Paramedic Observer. He is an Executive Committee member of the Australian Health Care Reform Alliance and an Honorary Fellow of the Australasian College of Paramedicine (ACP) and the Australian Institute of Paramedic Practitioners.

2. Among past contributions, the author made a submission to the MRFF Priorities 2018–2020 consultation specific to paramedic workforce research,² and a submission to the 2019 Australian Research Council (ARC)/Australian Bureau of Statistics (ABS) review of the Australian and New Zealand Standard Research Classification (ANZSRC) advocating for research directions that recognised paramedicine as a discrete Field of Research.³

3. This submission is made in a personal capacity and does not represent the views of any organisation with which the author is associated. It is directed to the Board's statutory function under section 32E of the Medical Research Future Fund Act 2015, and not to the separate question of the Government's response to the National Health and Medical Research Strategy. Consistent with the Board's intention to set fewer and more specific Priorities, this submission does not seek an additional Priority, a more extensive Strategy, or any widening of scope. The recommendations ask only that paramedicine be clearly identified within the draft Priorities.

2. Context: an improving but incomplete picture

4. Paramedicine's relative absence from national health policy recognition has been described as making it "*the forgotten profession*" in Australian research policy.⁴ Some of that anonymity has been removed since national registration of the profession in 2018 and the 2020 revision of ANZSRC creating a dedicated Field of Research code — 320219 Paramedicine, within Group 3202 Clinical Sciences.⁵ This welcome structural change means that paramedicine research is now, in principle, identifiable and trackable in national research statistics.

5. Some funding is also beginning to reach out-of-hospital research: Ambulance Victoria's Centre for Research and Evaluation was awarded a \$4,999,576 MRFF Cardiovascular Health Grant in 2024–25 for improving outcomes and survivorship following sudden cardiac arrest in the young,⁶ and an MRFF Practitioner Fellowship (MRF1139686) has supported research refining ambulance clinical response models.⁷

² Bange, R. (with the Australian Health Care Reform Alliance), *Response to the MRFF Australian Medical Research and Innovation Priorities 2018–2020 consultation*, 2018.

³ Bange, R., *Submission on the ARC–ANZSRC Review, to the Australian Research Council*, Australian Bureau of Statistics, Statistics New Zealand and the New Zealand Ministry of Business, Innovation and Employment, June 2019.

⁴ Ibid.

⁵ Australian and New Zealand Standard Research Classification (ANZSRC) 2020, Australian Bureau of Statistics, cat. no. 1297.0, released 30 June 2020 — Field of Research code 320219 Paramedicine, within Group 3202 Clinical Sciences, Division 32 Biomedical and Clinical Sciences.

⁶ Ambulance Victoria, Annual Report 2024–25, 'Our research', ambulance.vic.gov.au/annual-report-2024-25/our-research.

⁷ MRFF Practitioner Fellowship MRF1139686, acknowledged as a funding source in research refining ambulance clinical response models and their impact on ambulance response and emergency department presentations (PubMed 38561320).

6. These awards sit within cardiovascular and practitioner-fellowship streams rather than being identified as paramedicine research. A highly visible paramedic researcher — Associate Professor Ziad Nehme, recipient of the 2024 National Health and Medical Research Council (NHMRC) Peter Doherty Investigator Grant Award for Emerging Leadership and the 2025 Commonwealth Health Minister's Award for Excellence in Health and Medical Research — holds his current five-year funding through the NHMRC Investigator Grant scheme, not the MRFF.⁸ While paramedicine research is now in the classification system, it is still not visible as a funded category in its own right.

7. The concentration of existing prehospital research funding on out-of-hospital cardiac arrest events also reveals a proportionality problem: cardiac arrest accounts for a relatively small proportion of the ambulance service workload. Registry-based epidemiology of that fraction is valuable, but is only part of the overall burden of disease that paramedics manage, and is a poor basis for judging value for money.

8. The MRFF's own investment-alignment analysis (August 2026 consultation webinar) shows Primary Care Research receiving only 7.6% of total MRFF investment under the current Strategy.⁹ This is the second-lowest of listed categories, with no separate visibility for out-of-hospital or paramedicine-led care.

9. The pattern is consistent with the author's 2018 description of paramedicine research as: "...inadequate in Australia and indeed has been largely ignored internationally despite it holding the promise of high value returns for funds invested".¹⁰ That observation still holds. The gap sits upstream, in models of care and in system and service reform that use paramedics across primary care and public health, rather than in episodic response alone.

10. The profession's research capacity has grown steadily since becoming a registered profession in 2018, with PhD completions and enrolments in Australia rising to an estimated 87 by 2026^{11, 12} underpinned by 27,809 registered paramedics nationally at March 2026, of whom an estimated 30.6% are not employed by jurisdictional ambulance services.¹³ Research capacity to use MRFF investment is no longer a constraint. What is missing is a funding architecture that identifies paramedicine and directs investment to use the available expertise.

11. Capacity is also demonstrable at the individual level: Australian paramedic academics now hold robust publication and citation records comparable with those of longer-established health research disciplines.¹⁴

⁸ NHMRC, 'Prestigious award recognises lead paramedic-scientist for life saving research' (2025 Commonwealth Health Minister's Award for Excellence in Health and Medical Research, awarded alongside a five-year NHMRC Investigator Grant); Ambulance Victoria, Annual Report 2024–25, 'Our research' (2024 NHMRC Peter Doherty Investigator Grant Award for Emerging Leadership).

⁹ MRFF Strategy and Priorities Consultation Webinar — presentation and Q&A Report, Australian Medical Research Advisory Board (AMRAB) and Health and Medical Research Office (HMRO), 4 August 2026: Primary Care Research 7.6% of total MRFF investment aligned to current MRFF Priorities.

¹⁰ Bange, R., 2018 MRFF Priorities 2018–2020 consultation response, op. cit.

¹¹ Australasian College of Paramedicine, Position Statement: *Recognising conjoint appointments for paramedics to work across clinical and academic settings*, 10 August 2023.

¹² Paramedic PhD Registry, Paramedic PhD Submission Data [Updated 17-May-2026] <https://www.paramedicphd.com/resources/statistics> (accessed 13/08/2026)

¹³ Paramedicine Board of Australia, registrant data, March 2026 (27,809 registered paramedics; 1,039 non-practising). Non-jurisdictional share derived from Report on Government Services 2026 jurisdictional ambulance service employment data; analysis published by The Paramedic Observer, <https://tinyurl.com/3tmmzdkm> (accessed 15/08/2026)

¹⁴ Australasian College of Paramedicine, Position Statement: *Paramedics — a sustainable healthcare workforce supporting team-based primary and urgent care across Australasia*, 27 June 2024.

12. Funding of paramedicine research comes predominantly from outside the MRFF. In 2024–25 Ambulance Victoria and its research partners attracted over \$8 million in research funding, holding lead-investigator roles across NHMRC, MRFF and Heart Foundation schemes — including a \$3 million NHMRC Centre of Research Excellence for the Australian Resuscitation Outcomes Consortium (Aus-ROC) prehospital emergency care program, a \$374,505 Emergency Management Victoria grant for a randomised controlled trial of eye movement desensitisation and reprocessing to prevent post-traumatic stress disorder (PTSD), and a \$100,000 Heart Foundation Catalyst Partnership Grant on prehospital cardiac care.

13. A significant body of past research has addressed paramedic health and safety, reflecting an established international evidence base on occupational risk in the profession, including the work of Maguire and colleagues on paramedic injury and fatality rates.¹⁵ The evidence indicates that healthcare worker wellbeing warrants dedicated research investment and should be a research priority, and not treated as a byproduct of patient outcome studies.¹⁶

14. While paramedicine research is significant enough to attract funding from a wide range of sources, the MRFF engagement to date is limited, and where MRFF funding does arrive it tends to be mediated through disease- or technology-specific streams rather than directed at the discipline. That is a matter of portfolio design, and within AMRAB's power to address. It is also something that can be addressed without displacing existing grantees. The May 2026 Budget provided an additional \$508.5 million over four years, taking MRFF grant funding to a record \$1 billion a year by 2030–31, alongside \$210 million directed to national research priorities. The recommendations in this submission are framed against that growth: they seek a share of new and expanding investment, not a reallocation away from established programs.

15. The same identification issue recurs in the state and non-government schemes that carry much of the current paramedicine research investment. NSW Health's Translational Research Grants Scheme lists NSW Ambulance as an eligible host organisation, but requires the lead investigator to be "*a medical, nursing, allied health, or population health practitioner*". Paramedicine is not named and must rely on being included under "*allied health*". Conversely, the Emergency Medicine Foundation's Queensland Research Program, funded through Queensland Health, names paramedics and extends eligibility to the Queensland Ambulance Service, Retrieval Services Queensland, the Royal Flying Doctor Service (Queensland) and LifeFlight. This demonstrates that explicit eligibility for paramedicine can be incorporated where there is policy intent to do so.

16. Eligibility is only part of the barrier. Another impediment is provider services (e.g. ambulance services) that are not conventional research hosts and often lack the administrative infrastructure of universities and medical research institutes. The May 2026 Budget's funding to address research administration costs across organisations with MRFF grants highlights that disadvantage, and the system design should accommodate atypical research host organisations.

¹⁵ Maguire BJ, Al Amiry A, O'Neill BJ. *Occupational injuries and illnesses among paramedicine clinicians: analyses of US Department of Labor data (2010–2020)*. Prehosp Disaster Med. 2023;38(5):581–588. doi:10.1017/S1049023X23006118

¹⁶ Maguire BJ. *Occupational fatalities in emergency medical services: a hidden crisis*. Acad Emerg Med. 2002;9(9):903–908. doi:10.1197/aemj.9.9.903.

17. A third funding category sits outside the traditional research system. The Commonwealth's Innovative Models of Care (IMOC) program funded multidisciplinary rural primary care trials of community paramedicine across four rural Victorian community health services, but as a health-programs grant.¹⁷ IMOC Round 4 included a \$1.4 million award to Sunraysia Community Health Service over four years from 2024. This created neither competitive research funding nor investment visible against the Field of Research 320219.

18. Meanwhile, the profession's own internal research grants, offered by the ACP, are capped at \$6,000 for early career researchers and \$3,000 for higher degree by research. Set against a single \$5 million MRFF grant, that is the measure of the distance between a national grant priority and what paramedicine research can command alone.

19. That the profession can support national research infrastructure is not in question. Every Australian jurisdictional ambulance service contributes to the Aus-ROC out-of-hospital cardiac arrest Epistry, which now covers 100% of Australia and New Zealand, and individual services publish annual outcome reports on a standardised basis. Outcomes have improved measurably under that reporting regime, with the best-performing Australian systems now comparable to the leading international jurisdictions. This mature evidence base currently is sustained by the ambulance services and by NHMRC Centre of Research Excellence funding rather than by the MRFF. It is a clear model for where targeted MRFF investment could extend beyond cardiac arrest to a wider range of time-critical and community conditions that paramedics attend, including mental health presentations.

20. That allocative distinction is relevant under the proposed draft Strategy division of labour, in which the NHMRC carries discovery and capability building and the MRFF carries translation and implementation. On that basis, paramedicine does not present as a case of unmet discovery need: the foundational work, cohort assembly, registry design, national coverage, and extensive standardised outcome reporting have already been done, and have been paid for by the NHMRC, the ambulance services and the philanthropic sector. What remains unfunded are the translation and implementation steps for which the MRFF is the designated body.

3. Response to the draft Strategy Questions

Survey Q14

Does the proposed Vision best position the MRFF to transform health and medical research and innovation in Australia over the next five years?

21. Yes. The proposed Vision, "*Transforming health through research excellence and lasting impact*", is well suited to paramedicine's distributed clinical footprint, provided the health system is interpreted to include out-of-hospital care and paramedic researchers. The current drafting does not make that inclusion clear, and the profession's history suggests inclusion should not be assumed. Paramedicine must be named, or clearly intended, as eligible under future grant design—a step the author has found often does not occur in practice.

¹⁷ Australian Government Department of Health and Aged Care. Innovative Models of Care (IMOC) Program – CP@clinic: Sunraysia Community Health Services [Internet]. Canberra: Australian Government; 2025. https://www.health.gov.au/sites/default/files/2025-04/innovative-models-of-care-imoc-program-cp-clinic_0.pdf

Survey Q15

Do the proposed Strategic Objectives set a clear and appropriate direction for delivering the MRFF Vision 2026-2031?

22. Yes. The Strategic Objective of "*a research-rich, data-enabled learning health system that continuously improves quality, efficiency, cultural safety, and equity*" is broad enough to encompass paramedicine, but the same caveat applies as for Q14. The objective will only be delivered for paramedicine if out-of-hospital care is understood to be part of the health system, rather than an adjunct to it.

Survey Q16

Will the proposed cross-cutting principles support successful delivery of the MRFF Strategy 2026-2031?

23. Yes. The principle of "*systems-based and scalability*" maps closely onto the evidence base set out in Section 4. It will only translate into practice for paramedicine if paramedic services and paramedic academics are named, or clearly intended, as eligible partners under future grant design — a step the author's previous submissions found was not happening in practice.

Survey Q17

Will the shared enablers support the successful delivery of the MRFF Strategy 2026-2031?

24. Yes. The shared enabler of a "*connected research workforce across academia, health services and lived experience*" is directly relevant to the workforce case made at Q27. As with Q16, the enabler needs explicit paramedicine inclusion to be more than aspirational for the profession.

Survey Q18

Are there any additional issues or feedback on the proposed Strategy that have not been addressed above?

25. No further comment is offered on the Strategy beyond paragraphs 12–19 above.

4. Priority-specific responses

26. The nine draft Priorities are addressed below in the order presented in the consultation survey. Six have paramedicine evidence to contribute; the remainder are marked as well addressed since this submission has no paramedicine-specific evidence to add.

AI in research and health systems

Survey Q19

Considering the proposed Priority 2026-2028 of AI in research and health systems, are there any important elements not captured in this Priority that should be included?

27. Ambulance dispatch and response prioritisation is an AI-relevant application with direct patient-safety implications and is already a profession-endorsed research priority, identified among the 37 consensus items in the ACP's *Research Agenda for Australasian Paramedicine*, developed through a formal two-phase Delphi consensus process.¹⁸ The aim of "*nationally coordinated, safe, and ethical use of artificial intelligence across research and health systems... across the care continuum...*" should include AI-assisted ambulance dispatch and triage, since they sit within emergency care and patient safety.¹⁹

28. A related but distinct need is digital-enabled care that complements AI capability: paramedics (and other health workers) in remote and rural settings require reliable connectivity to clinical and diagnostic support where telehealth cannot be reached, and interoperable linkages to medical and electronic health records. These are digital-health infrastructure requirements on which AI applications depend, but for which they are not a substitute.

29. While this submission acknowledges clinical and patient-outcome research (cardiac arrest survival, mental health presentations, community paramedicine), the case for operational and systems research — dispatch and response configuration, resource allocation, rostering, and enhancing the interface between ambulance and hospital capacity — deserves equal standing.

30. Ambulance ramping is an operational phenomenon that affects patients and independently predicts depression, anxiety, stress and PTSD symptoms in Australian paramedics.²⁰ Such research simultaneously spans patient-safety, workforce and worker wellbeing, and should be recognised as a distinct, fundable research stream.

Integrated digital health systems

Survey Q20

Considering the proposed Priority 2026-2028 of Integrated digital health systems, are there any important elements not captured in this Priority that should be included?

31. Ambulance and other paramedic service clinical records are a potentially valuable but currently underused national real-world data asset exemplified by out-of-hospital cardiac arrest registries that already demonstrate high-value, translatable findings. Separately, ambulance clinical records were used to identify over 110,000 attendances to men experiencing mental health issues, with self-harm, mental health symptoms, alcohol or substance use present in over 10% of all ambulance attendances, a scale and detail not visible in Medicare or hospital data alone.²¹ This priority's emphasis on "*interoperable, secure and high-quality data utilisation, linkages and infrastructure*" should explicitly name ambulance/paramedic clinical data as a national data-linkage asset warranting investment.

¹⁸ Australasian College of Paramedicine, *Research Agenda for Australasian Paramedicine*, 2023 — 37 consensus research priorities developed via a two-phase Delphi consensus process, including dispatch/response prioritisation.

¹⁹ Draft Australian Medical Research and Innovation Priorities 2026–2028 – For Consultation, Attachment 2, Australian Medical Research Advisory Board, July 2026, p. 3 (AI in research and health systems).

²⁰ Phillips, W.J., Cocks, B.F. & Manthey, C., "*Ambulance ramping predicts poor mental health of paramedics*", *Psychological Trauma: Theory, Research, Practice, and Policy*, vol. 15, suppl. 2, September 2023, pp. S305–S314.

²¹ Turning Point, *Beyond the Emergency: a national study of ambulance responses to men's mental health*, 2019, cited in Bange, R., Submission on the ARC-ANZSRC Review, 2019. The Paramedic Observer, Facebook 30 May 2019. <https://tinyurl.com/3y94rms5> (accessed 13/08/2026)

32. Framed against the National Safety and Quality Health Service Standards applicable to ambulance services, two-way data access matters for patient safety as much as for research: reading a patient's medical record enables diagnostic confirmation at the point of care, and feedback and feed-forward clinical learning for the attending paramedic. That access remains uneven in some jurisdictions, with paramedics currently unable to access electronic records, in part because of privacy and other legal barriers.²²

33. The return on investment in ambulance data is measurable. Ambulance Victoria's 2024–25 Cardiac Arrest Registry report records 7,550 out-of-hospital cardiac arrest patients, of whom 477 survived to hospital discharge, with 63% survival where a public automated external defibrillator (AED) delivered the first shock, compared with 7% when there was neither bystander cardiopulmonary resuscitation (CPR) nor AED use.²³ St John Ambulance WA, which has reported comparable data annually since 2016, recorded 36% 30-day survival in its 2024 Utstein comparator group, placing it sixth among the recognised international systems benchmarked in its report.²⁴

34. Sustained investment in a well-designed ambulance dataset has enabled measurement and public reporting of survival over time. Extending the same data infrastructure across the wider range of presentations that service paramedics attend, mental health, overdose, falls and chronic disease exacerbation among them, is a logical extension of this priority.

Aboriginal and Torres Strait Islander community governed and directed research

Survey Q21

Considering the proposed Priority 2026-2028 of Aboriginal and Torres Strait Islander community governed and directed research, are there any important elements not captured in this Priority that should be included?

35. The priority is considered to be well addressed. The author defers to the expertise of Aboriginal and Torres Strait Islander health organisations and researchers, and offers no paramedicine-specific comment beyond noting that research into paramedic engagement in community and primary care settings may be relevant to community-directed priorities.

Advanced therapeutics and emerging technology

Survey Q22

Considering the proposed Priority 2026-2028 of Advanced therapeutics and emerging technology, are there any important elements not captured in this Priority that should be included?

36. The priority is well addressed. The author has no paramedicine-specific evidence to add.

²² Draft Australian Medical Research and Innovation Priorities 2026–2028 – For Consultation, Attachment 2, Australian Medical Research Advisory Board, July 2026, p. 4 (Integrated digital health systems).

²³ Ambulance Victoria. *Victorian Ambulance Cardiac Arrest Registry Annual Report 2024/25*. Melbourne: Ambulance Victoria; [2026 VACAR Annual Report 2024/25](#) (accessed 15 August 2026).

²⁴ St John Western Australia. *Out-of-Hospital Cardiac Arrest Report 2024*. Belmont (WA): St John Western Australia; 2025 [St John WA Out-of-Hospital Cardiac Arrest Report 2024](#) (accessed 15 August 2026).

Health impacts from environmental factors, including climate change

Survey Q23

Considering the proposed Priority 2026-2028 of Health impacts from environmental factors, including climate change, are there any important elements not captured in this Priority that should be included?

37. Paramedic and ambulance services are already a frontline workforce for the climate-related disasters this priority addresses, and are under-utilised in that role. The author's 2023 submission to the Senate Select Committee on Australia's Disaster Resilience documented paramedics being deployed to support firefighters and communities during the 2019–2020 bushfire season, which burned over 10 million hectares and claimed 34 lives,²⁵ and identified climate-linked health surges that ambulance data could track, including post-flood rises in gastroenteritis, salmonellosis and leptospirosis from water-borne and rodent-borne pathogens. Another example is the 2016 Victorian "thunderstorm asthma" event which caused thousands of acute respiratory presentations in a single evening.²⁶

38. The author's submission outlined how paramedics outside jurisdictional ambulance services are not mobilised as surge capacity for such disaster responses.²⁷ This priority's emphasis on "a climate-resilient health system that is prepared for and responsive to the health impacts of environmental factors"²⁸ should explicitly fund research into using this workforce better and using ambulance service clinical data as a real-time surveillance source for climate-related healthcare demand surges, rather than treating paramedic services as a response-logistics matter outside the priority's scope.

Multiomics-informed healthcare

Survey Q24

Considering the proposed Priority 2026-2028 of Multiomics-informed healthcare, are there any important elements not captured in this Priority that should be included?

39. The priority appears well addressed. Multiomics-informed healthcare is not directly relevant to this submission's paramedicine focus and the author has no specific comment to make.

Determinants of health

Survey Q25

Considering the proposed Priority 2026-2028 of Determinants of health, are there any important elements not captured in this Priority that should be included?

²⁵ Bange, R., *Enhancing Resilience: mobilising the forgotten health profession* — submission to the Senate Select Committee on Australia's Disaster Resilience, Parliament of Australia, March 2023.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Draft Australian Medical Research and Innovation Priorities 2026–2028 – For Consultation, Attachment 2, Australian Medical Research Advisory Board, July 2026, p. 7 (Health impacts from environmental factors, including climate change).

40. The case for out-of-hospital models under this priority rests on a prior question about where research funding sits. The author's earlier submissions argued that MRFF investment has been oriented towards biomedical research rather than towards the public health, primary care and health services research that shapes population outcomes — and the determinants of health are addressed through service and system design as much as through clinical interventions.

41. Community paramedicine and extended-care paramedic models are an existing, distributed delivery mechanism for reaching rural, remote and socioeconomically disadvantaged populations. A recent restricted review by Shannon et al. found community paramedicine programs *"appear to be economically viable and result in positive patient outcomes with high patient satisfaction with care"*.²⁹ The Grattan Institute's *A new Medicare* identifies paramedics among the clinicians for whom there is *"a very significant gap between the contribution they are able to make, and what funding and policy let them do"*,³⁰ and the Royal Flying Doctor Service's *Best for the Bush* report recommends further work to identify how paramedic skills can be used beyond their highly visible work for ambulance services.³¹

42. The recommendations that follow from this evidence have been made previously. The author's 2018 submission called for *"a national commitment to funding of community paramedicine and evaluation and translation into practice ... driven by a national research agenda"*.³² The ACP's 2024 position statement calls on government to *"increase targeted research funding for this area of paramedicine to understand and evaluate the impact of community paramedicine on the wider healthcare system and on patient outcomes"*.³³ This longstanding request remains unfunded - and this priority is where it belongs.

Embedding research in the health system

Survey Q26

Considering the proposed Priority 2026-2028 of Embedding research in the health system, are there any important elements not captured in this Priority that should be included?

43. This priority's description of a *"hybrid workforce of clinician-scientists, health service leaders and researchers"* and research spanning *"the continuum of health systems and services from primary and community care to hospitals"* is close to a direct description of what paramedicine's own research studies have advocated.³⁴ Both the author and the ACP's 2023 Conjoint Appointments position statement have called for this kind of joint appointment model.³⁵

44. A 2018 peer-reviewed analysis recommended joint university-ambulance service appointments and, as a longer-term structural step, a national hub-and-spoke paramedicine

²⁹ Shannon, B., Batt, A.M., Eaton, G., Leyenaar, M., O'Meara, P., Barry, T. et al., *"The advantages and challenges experienced with the implementation and delivery of community paramedicine programmes: A qualitative reflexive thematic analysis"*, *Paramedicine*, vol. 20, no. 6, 2023, pp. 181-197.

³⁰ Breadon, P., Romanes, D., Fox, L., Bolton, J. & Richardson, L., *A new Medicare: Strengthening general practice*, Grattan Institute, 2022.

³¹ Royal Flying Doctor Service, *Best for the Bush, Rural and Remote Health Base Line*, 2023.

³² Bange, R., 2018 MRFF Priorities 2018-2020 consultation response, op. cit.

³³ ACP, *Paramedics: A sustainable healthcare workforce supporting team-based primary and urgent care across Australasia*, Position Statement, 2024. <https://tinyurl.com/3pytfafx> (accessed 13/08/2026)

³⁴ Draft Australian Medical Research and Innovation Priorities 2026-2028 – For Consultation, Attachment 2, Australian Medical Research Advisory Board, July 2026, p. 10 (Embedding research in the health system).

³⁵ ACP, *Conjoint Appointments Position Statement*, 2023, op. cit.

research centre.³⁶ The author's 2017 submission to the Victorian Government's Review of the Ambulance Services Act 1986 recommended the legislation be amended to support research collaboration between ambulance services and universities.³⁷ In practice, the continuum this priority describes currently stops at the hospital door; it should extend to pre-hospital and out-of-hospital care, to bridge a significant knowledge gap.

Skilled and sustainable health and medical research workforce

Survey Q27

Considering the proposed Priority 2026-2028 of Skilled and sustainable health and medical research workforce, are there any important elements not captured in this Priority that should be included?

45. This priority targets "under-represented research disciplines" and "diverse career stages", which fit paramedicine well.³⁸ A 2018 analysis identifies four specific impediments to a sustainable paramedic academic workforce: access to ambulance service data, research support from ambulance services, dedicated research funding, and ongoing access to clinical practice to maintain currency.³⁹ Paramedic academics frequently surrender clinical registration because they are given no structured way to hold both roles — a problem nursing and allied health resolved decades ago through conjoint and joint appointment models that paramedicine still largely lacks. A capability-building stream naming paramedicine alongside other under-represented disciplines within allied health would address a gap this submission has documented at paragraphs 10 and 44.

46. Workforce sustainability in paramedicine cannot be separated from occupational psychological injury, which remains under-researched relative to its scale. Australian paramedics experience high rates of PTSD, with prevalence estimates ranging from 14.6% to 40%, against a general-population rate of around 4.4%;⁴⁰ the ramping study cited at paragraph 30 above shows this is not solely a function of trauma exposure but also of operational conditions that paramedics can research and address.⁴¹ PTSD-driven attrition is a workforce-sustainability problem with similar structural causes as the academic-pipeline problem described above and a lack of dedicated, protected research investment. The impacts on paramedicine should be recognised for funding within the Skilled and Sustainable Workforce priority rather than left to be inferred from general wellbeing language.

5. Priority Populations

³⁶ O'Meara, P. & Maguire, B., "Developing a sustainable academic workforce in paramedicine", Australian Universities' Review, vol. 60, no. 1, 2018, pp. 54–56.

³⁷ Bange, R., Submission to the Victorian Government's Review of the Ambulance Services Act 1986, 2017.

³⁸ Draft Australian Medical Research and Innovation Priorities 2026–2028 – For Consultation, Attachment 2, Australian Medical Research Advisory Board, July 2026, p. 11 (Skilled and sustainable health and medical research workforce).

³⁹ O'Meara & Maguire, op. cit.

⁴⁰ Johnston, A. et al., "A systematic review of the prevalence, risk factors, and protective factors of posttraumatic stress disorder among paramedics", Journal of Traumatic Stress, 2025; and Monash University Paramedic Health and Wellbeing Research Unit, cited in "Monash study reveals high incidence of PTSD in paramedics and student paramedics", Monash University, 2019 — Australian paramedic PTSD prevalence estimated between 14.6% and 40%, against a general-population rate of approximately 4.4%.

⁴¹ Phillips, Cocks & Manthey, op. cit.

Survey Q28

Are the proposed Priority Populations appropriate for guiding equity considerations across the proposed MRFF Priority 2026-2028?

47. Broadly yes, with one specific addition. The proposed Priority Populations list is generally appropriate but overlooks the role of paramedics and ambulance services as frequently the first, and sometimes sole, point of clinical contact for two of the listed groups — people in rural and remote communities and people with mental health conditions (including substance use disorders). This may occur well before those people ever reach a general practitioner (GP), emergency department or specialist service. Paramedic clinical data and paramedic-led care are therefore a primary access point for reaching these priority populations, and the guidance accompanying the Priority Populations list should state that.

Survey Q29

Is there any additional feedback on the proposed Priorities you would like to provide that has not been addressed above?

48. No further comment beyond the Recommendations in **Section 7**.

6. A note on comparator professions

49. Nursing and midwifery are often cited as having already solved the recognition problem — a long-established ANZSRC classification, Australian Health Practitioner Regulation Agency (AHPRA) registration, and a workforce of over 479,000 - making them the largest single group of health practitioners in Australia. Despite this positioning and size, a 2022 study⁴² shows that nurses received only 3% (7/378) of NHMRC Investigator Grants and midwives 0.4% (1/238) of grants in 2020.⁴³ Just 0.57% (30/5771) of applications that year identified nursing or midwifery as the primary field of research, notwithstanding evidence from four landmark US nursing-led studies showing returns of between US\$202 and US\$1,206 for every US\$1 invested.⁴⁴

50. Structural recognition and workforce size have not secured funding for nursing and midwifery; that has required deliberate intervention. For paramedicine, the lesson is more cautionary than the classification described in paragraph 4 would suggest. While research classification opened the door, it was named intervention that moved the money.

51. Following advocacy from the Australasian Nursing and Midwifery Clinical Trials Network, the 2022 Clinician Researchers: Nurses, Midwives and Allied Health Grant Opportunity⁴⁵ redefined "clinician researcher" as "a researcher that has current professional registration with the

⁴² Eckert, M., Rickard, C.M., Forsythe, D. et al., *Harnessing the nursing and midwifery workforce to boost Australia's clinical research impact*, Medical Journal of Australia, vol. 217, no. 10, 21 November 2022, pp. 514–516.

⁴³ Ferguson C, et al. *Global perspectives on under-funding for Clinical Research Training Fellowships in Nursing*. J Clin Nurs. 2021;30(17-18):e55-e58. doi:10.1111/jocn.15758 (accessed 15/08/2026)

⁴⁴ Kiely DP, Wysocki A. Federal funding of nursing research by the National Institutes of Health (NIH): 1993 to 2017. Nurs Outlook. 2020;68(3):270-283. doi:10.1016/j.outlook.2019.12.006. (accessed 15/08/2026)

⁴⁵ National Health and Medical Research Council (NHMRC), MRFF - 2022 Clinician Researchers: Nurses, Midwives and Allied Health Grant Opportunity GO5570, April 2022. <https://tinyurl.com/26wrr2ki> (accessed 13/08/2026)

Australian Health Practitioner Regulation Agency", with funding streams reserved for projects led by nurses, midwives and allied health professionals. Paramedics thus should be named alongside nurses, midwives and allied health professionals in any equivalent 2026–2028 grant design, rather than have their eligibility inferred from a generic allied health category — the same ambiguity that historically has excluded paramedicine from other policy considerations.⁴⁶

52. Internationally, the United Kingdom's experience is instructive on both funding models and cautionary limits. Paramedics have worked in UK primary care for more than two decades, with a level of mature role integration Australia has not yet matched despite comparable training and capability. On the funding side, a UK analysis of research investment concluded that "*much of the wider innovation needed for the NHS, public health and social care has been under-resourced*" relative to biomedical research,⁴⁷ identifying the same imbalance the MRFF's 7.6% primary-care-research figure suggests persists in Australia.⁴⁸

53. That comparison sits squarely within the framework the Board has adopted: the landscape review informing the draft Strategy benchmarked the MRFF against the NHMRC, the United Kingdom's National Institute for Health and Care Research and Medical Research Council, and Canada's Canadian Institutes of Health Research. Structural recognition alone (a classification code or a stated priority) does not correct a funding imbalance. Deliberate investment must follow, and the mechanisms that make it reach the profession must follow with it — the practical intent of the author's Recommendations C, G, H, J, K and L.

7. Recommendations

54. The recommendations below are framed against the matters the Board is required to consider under section 32E of the Act. Each is directed at areas of substantial burden of disease such as cardiac arrest, mental illness and self-harm, chronic disease exacerbation and climate-related injury, weighted by case volume as well as by severity. These are areas in which paramedic services often deliver the first, and sometimes the only, clinical contact and practical benefits to as many Australians as possible, including those in rural and remote communities.

55. Each recommendation also satisfies the complementarity test. As outlined in Section 2, paramedicine research is presently sustained by the NHMRC, state translational schemes, philanthropic funders and non-research health-program grants, so targeted MRFF investment would complement and enhance that existing assistance rather than duplicate it.

Recommendation A. That the final MRFF Strategy 2026–2031 explicitly extend "*the continuum of health systems and services*" under the Embedding research in the health system priority to include pre-hospital and out-of-hospital paramedic-led care.

Recommendation B. That the final Priorities 2026–2028 name paramedicine among the under-represented research disciplines targeted for capability-building under the Skilled and

⁴⁶ Bange, R., *What would a Chief Paramedic Officer do?*, policy paper to the Senate Rural and Regional Affairs and Transport References Committee, Inquiry into Rural, Regional and Remote Medicare Access and Funding, 5 August 2026 — https://paramedprof.com/wp-content/uploads/2026/08/RRAT_CPO_Brief_Bange_5Aug2026.pdf

⁴⁷ Jones, R. & Wilsdon, J., *The Biomedical Bubble: Why UK research and innovation needs a greater diversity of priorities, politics, places and people*, Nesta, 12 July 2018.

⁴⁸ MRFF Strategy and Priorities Consultation Webinar, 4 August 2026, op. cit.

sustainable health and medical research workforce priority, with support for joint/conjoint academic-clinical appointment models between universities and paramedic services. (See also Recommendation G.)

Recommendation C. That the MRFF fund a coordinated national evaluation of community paramedicine and extended-care paramedic models under the Determinants of health priority, and that the funds allocated in the May 2026 Budget to bridge the gap between promising research and the delivery of new treatments, with projects to be selected competitively, be recognised as an appropriate vehicle for that evaluation.

Recommendation D. That ambulance and paramedic clinical data be explicitly named as a national real-world-data asset warranting linkage and infrastructure investment under the Integrated digital health systems priority, and that this extend to research supporting two-way access, so that registered paramedics can read a patient's medical record at the point of care for diagnostic confirmation and clinical learning, including research into the governance, privacy and legislative conditions that currently prevent such access in some jurisdictions.

Recommendation E. That the Integrated digital health systems priority fund research into out-of-hospital digital connectivity, including reliable links from field paramedics to clinical and diagnostic support in remote and rural settings where telehealth cannot be reached, recognising this as digital-health infrastructure on which artificial-intelligence applications and the record access sought in Recommendation D both depend, rather than an AI application in itself, and extending to related volunteer and first-responder models of care that rely on it.

Recommendation F. That the Priority Populations guidance recognise paramedic services as a primary point of clinical contact for rural and remote communities and people with mental and chronic health conditions, and a valuable source of data for research into their needs.

Recommendation G. That AMRAB track and publicly report MRFF investment against ANZSRC Field of Research code 320219 (Paramedicine), turning the 2020 classification recognition into a transparency and accountability mechanism for future funding decisions. As an administrative reporting measure (rather than a change to the Strategy or the Priorities), this recommendation would be appropriately progressed through the second stage of the consultation, where technical advice is to be explored through expert and governance channels including the joint NHMRC-MRFF advisory committees.

Recommendation H. That paramedics be named, not left to be inferred from a generic "allied health" category, alongside nurses, midwives and allied health professionals under the AHPRA-registration-based "clinician researcher" definition used in MRFF grant opportunities, following the 2022 precedent set for nursing and midwifery.

Recommendation I. That the AI in research and health systems priority include ambulance dispatch and response-prioritisation algorithms as a paramedicine research application, consistent with the profession's own *Research Agenda for Australasian Paramedicine*.

Recommendation J. That the Health impacts from environmental factors priority fund research into better mobilising the paramedicine workforce, including the estimated 30.6% of the profession (March 2026) not currently employed by jurisdictional ambulance services, for

climate-related disaster surge capacity, and into ambulance clinical data as a real-time surveillance mechanism for climate-linked health impacts.⁴⁹

Recommendation K. That the MRFF fund research into paramedic occupational PTSD and its operational drivers, including ambulance ramping, workload and exposure, as a named element of the Skilled and sustainable health and medical research workforce priority, recognising these as patient-safety, operational and worker-wellbeing research issues.

Recommendation L. That the design of the \$127.6 million research administration support announced in the May 2026 Budget expressly accommodate the funding of non-traditional research host organisations, including ambulance and paramedic services, so that eligibility to hold an MRFF grant is matched by the administrative capacity to deliver one.

Abbreviations

ABS	Australian Bureau of Statistics
ACP	Australasian College of Paramedicine
AED	Automated external defibrillator
AHPRA	Australian Health Practitioner Regulation Agency
AI	Artificial intelligence
AMRAB	Australian Medical Research Advisory Board
ANZSRC	Australian and New Zealand Standard Research Classification
ARC	Australian Research Council
Aus-ROC	Australian Resuscitation Outcomes Consortium
CPR	Cardiopulmonary resuscitation
GP	General practitioner
IMOC	Innovative Models of Care (program)
MRFF	Medical Research Future Fund
NHMRC	National Health and Medical Research Council
NHS	National Health Service (United Kingdom)
PTSD	Post-traumatic stress disorder

⁴⁹ Paramedicine Board of Australia registrant data, March 2026, op. cit.