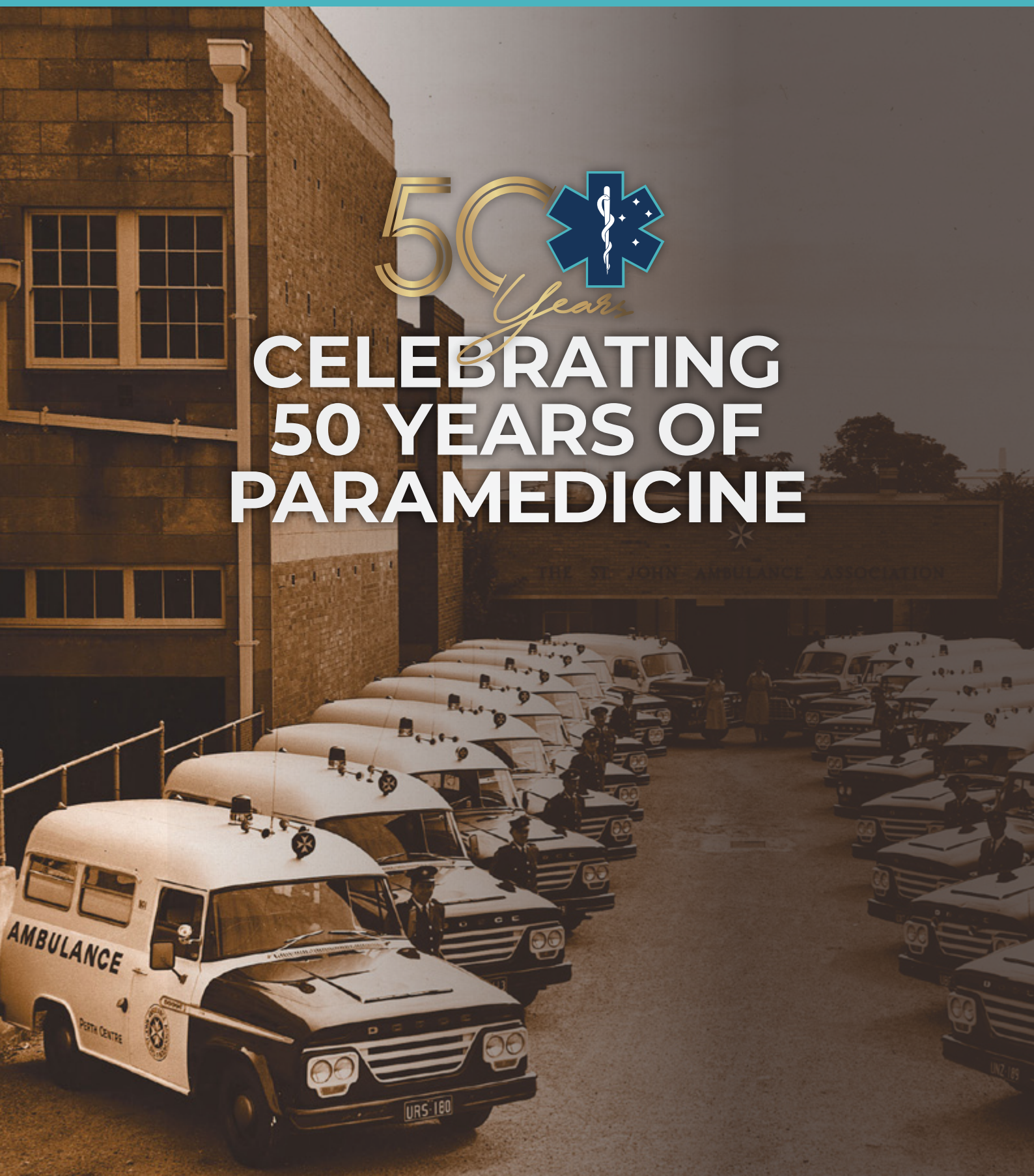


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RESPONSE

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COVER

Image: St John Ambulance, Perth, circa 1970s.

The College acknowledges Aboriginal and Torres Strait Islander peoples as the traditional custodians of the land and sea in which we live and work, we recognise their continuing connection to land, sea and culture and pay our respects to Elders past, present and future.

The College acknowledges Māori as tangata whenua and Treaty of Waitangi partners in Aotearoa New Zealand.

FROM THE CHAIR



A BRIGHT FUTURE FOR PARAMEDICINE

with **Ryan Lovett**, College Chair

Welcome to the Autumn edition of Response and our 50th anniversary special edition.

I have been reflecting on where the profession has come from, as I wrote about in the last edition of Response, and now, where we are going. I have previously commented that I believe this is the decade of paramedicine, and this vision for the profession is holding true with the College being a vital contributor in bringing this future into reality.

The past six weeks have seen the College distribute three important consultation papers, with the fourth due out soon, receiving input from hundreds of members, paramedics and students on the positioning of paramedicine in the health system, a clinical practice framework, and professional development programs. The fourth and final consultation is looking at the challenges and opportunities for the paramedicine health workforce. I appreciate the time committed and insight supplied by members and the profession to provide input to these consultations.

If we consider the past five years since registration was achieved in Australia, the College had our merger, achieved paramedic registration in Aotearoa New Zealand, and withstood a global pandemic that highlighted and exasperated the challenges our health system faces. After decades of work in the push for registration, the question is, what now for paramedicine? COVID showed the health system what paramedics can

WE TRULY ARE
HERE TODAY
BECAUSE WE
STAND ON THE
SHOULDERS
OF GIANTS

do, at the same time bringing front and centre the health workforce challenges which will impact and change the delivery of healthcare forever.

While our consultations had a component about the College vision, they were primarily about the profession's vision and opportunities for the future. The CEO and Advocacy Team will be working with key stakeholders to build a future vision for paramedicine, considering and laying out what we can expect from the profession in a 2030 vision. It is an exciting time for paramedicine and feels like a moment in time where we are, for the first time, in control of our own destiny.

Thinking about where the College is headed, the Board and executive team over the past 18 months have been focused on setting the College up for the future, and it's work that never actually stops. I have written previously about the organisational review and restructure that took place in late-2021 and 2022. The restructure was designed to better align the College's resourcing to achieve our strategic objectives; this process has seen fully functioning Advocacy and Education Teams make considerable strides in promoting paramedicine and providing modern, targeted and contextualised paramedic education.

With these significant achievements now bedded in, the College has entered a period of renewed focus on member and profession engagement, with further resourcing allocated to deliver this - a key discussion during the Board's recent strategic planning day in February. The pandemic curtailed much of our face-to-face, in-person activities and engagement, and we look forward to seeing our members, paramedics and students in person to deliver services and hear firsthand what is supporting and hindering your ability to fully contribute to the health system.

We also recently held an Extraordinary General Meeting to consider the second (and final) update to our Constitution. These updates were focused on ensuring our governing document provides the framework for future success; a vital component of delivering for the profession. The updates have revised our Objects to a more holistic, profession-wide view to support our members and the profession, updated our classes of membership to return the College to driving improvements in clinical excellence, and improved governance of the Board.

In considering all of our recent achievements, and our focus on future opportunities, it would be remiss of me to not reflect how we have come to the position we are in today. In this, our 50th year, I would like to ensure that I acknowledge the hard work, dedication and countless hours contributed by so many over so many years. To all of our previous Boards, our Chairs, our committee members and our volunteers, thank you. We truly are here today because we stand on the shoulders of giants.

Please stay safe.

FROM THE CEO

SETTING THE PATH TO TODAY

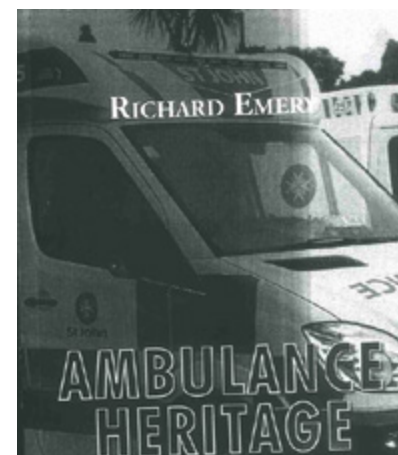
with **John Bruning**, College CEO

I have had the unique pleasure over the past six months to be reviewing historical documents of the College's predecessors, the Institute of Ambulance Officers (Institute) and the Australian College of Ambulance Professions (ACAP), and what a treasure trove of wonderful information is contained within these documents. I express my gratitude to College Fellows Mick Davis (QLD) and Les Hotchin (VIC) for sharing documentation from the early years of the Institute. I was fortunate to already hold much of the information from the NSW branch of Institute, so we now have access to a substantial number of documents from the 1970's.

IT WAS THE INSTITUTE THAT DROVE THE DEVELOPMENT OF EDUCATION AND TRAINING FOR AMBULANCE OFFICERS

I found a journal article from 1978 by H.G. (Jock) Berry, Founder Fellow and Secretary of the Institute during those early years, which considers how the Institute has performed in meeting the Objects in the first five years of its existence. Mr Berry notes that the goal to unite all ambulance officers is "approaching the half-way mark", "the promotion of the standing of ambulance as a para-medical activity has met with considerable success", with movement towards "developing our professional status". The development of a course to teach "all subjects pertaining to the ambulance care of patients and leadership of staff in ambulance services" has "occupied a great deal of our time".

It is quite remarkable that within the first 12 months of the formal establishment of the Institute, that an education seminar for ambulance officers was held at Monash University with input from the College of Surgeons, College of Psychiatrists, the Road Safety and Traffic Authority, and



the National Hospitals and Health Services Commission, among others. What became known as the "Monash Seminar" covered Obstetrics, Psychiatric Patients, Multiple Patient Emergency, Acute Medical and Surgical Conditions (covering Respiratory System),

Emery, R, 2019, Ambulance Heritage, Chapter 16[20]



Resuscitation and Trauma. The idea was the course would be developed further and become a nationally consistent training program of an equivalent standard to a diploma for ambulance officers and be widely recognised.

While the Institute was strongly supported by the ambulance boards (the precursors to the current ambulance services) and many of the Institute's leaders were superintendents of the various state and territory ambulance boards, it was the Institute that drove the development of education and

training for ambulance officers. There was a clear focus on progressing the standing of ambulance officers, achieving recognition for ambulance officers, creating national standards and education, elevating the clinical practice of ambulance officers, and delivering better patient care and outcomes.

Last year, I reached out to several Aotearoa colleagues and received a copy of a chapter from Richard Emery's book Ambulance Heritage, which details the formation (and unfortunate demise) of The Institute of Ambulance Officers New Zealand. I had already noted correspondence between the Australian and Aotearoa Institute in the early 1990s, and a reference to the newly formed NZ group in late 1978. The registration of the NZ Institute occurred on 15 December 1978. Its initial focus was proper (double) crewing, promoting the professionalism of ambulance officers and training seminars for ambulance officers. The first NZ National Seminar was held in October 1980, and yearly from then on. Unfortunately, by the late 1990s the NZ Institute was in trouble and was formally wound up in November 2002. On a side note, while investigating the NZ Institute, I was able to collect four pristine condition IAO NZ lapel pins from someone in rural NSW on eBay!

The initial objectives of both Institutes mostly remain the focus of the College today and should validate the effort of our founders to have the foresight for what the fledgling profession needed in the 1970s, and is still as important today as it was then.

Stay safe and well.

Quarterly highlights: Advocacy in action

Media coverage

29 March: In an op-ed published on Crikey, College CEO John Bruning addressed the pressing need for paramedics to be included in the Australian Government's multidisciplinary, team-based Urgent Care Clinics that are currently being rolled out across the country.

15 March: In the lead-up to the Australian Federal Budget, the Australian Health Journal released a Federal Budget Countdown package that featured College CEO John Bruning discussing innovative, team-based models of care in which paramedics are more widely utilised across urgent and primary care settings.

23 February: Following an announcement from Australian Health Minister Mark Butler that five UCCs will open across South Australia, College Chair Ryan Lovett was interviewed by ABC Radio South East SA about the UCC model and the incredible opportunity the government has to recognise and utilise paramedics in this team-based healthcare model.

Opportunities through discussion

The College has met with state government ministers and department representatives, jurisdictional ambulance service CEOs, and senior healthcare stakeholders and alliance groups on matters regarding healthcare reform and opportunities for the paramedic profession.

Submissions

- Australian Government Federal Pre-budget 2023-2024 submission
- Ahpra Review of Accreditation Arrangements
- New Zealand Therapeutic Products Bill
- Ambulance Victoria Draft Strategy on a Page 2023-2028
- National Strategy to Achieve Gender Equality
- Australian Universities Accord
- NHRA Mid-Term Review
- SA Health Palliative Care Project



CONSULTATION: ENGAGING THE PROFESSION TO IMPROVE PERSON-CENTRED CARE

By **Jemma Altmeier**,
College Advocacy and Government Relations Manager



By now, many members will have taken the opportunity to provide feedback on the consultation papers the College has been releasing, via online surveys. These papers explore topics that impact the paramedic profession now and into the future, with the overarching purpose of improving person-centred care for all people across Australasia.

The process of consultation is important to us in ensuring that we gather and consider all possibilities, angles and perspectives when embarking on a major project. The papers released are just one mechanism of the consultation process, and in some cases consultation on these topics began with a group forum discussion, a research study, or a strategic decision.

On the flip side, we often invite advisors to provide insight or perspective on submissions we make on consultations released by governments and stakeholders regarding issues and proposals that can impact person-centred care and the profession, which is why consultation is important. Providing your perspective, whether you agree, disagree or are not sure, enables us to better lead and represent the profession.

In the coming months we look forward to sharing insights gathered from the feedback captured in the consultation surveys. For members who may have missed this opportunity to provide feedback, don't panic - there will be further opportunities to engage in the consultation process as we work to define our position on paramedicine as a standalone profession, establish a Paramedicine Clinical Practice Framework for Australasia, develop Professional Practice Programs and determine the priority areas for building a future-ready paramedic workforce.

THE NUMBER ONE QUESTION WE RECEIVE ABOUT CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

By **Julie Johnson**, College Education Manager

How do I plan my CPD and why is this important?

Reflecting upon a conversation recently with a veteran of the industry, I realised just how far paramedicine as a profession has evolved. The early days necessitated employment before education with a strong emphasis on experiential learning. A lot of continual learning was provided by the employer. Why do we now need to undertake a professional learning approach to CPD? How will it benefit me, in my career and the community I look after?

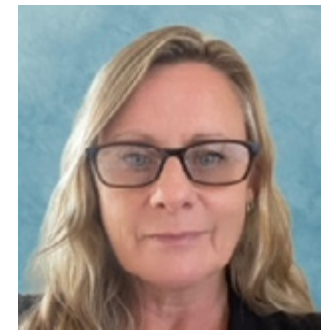
Paramedics are a registered health profession with sound foundations in formal education, and with that the demands of continued professional learning. Paramedics are in a privileged position. We operate mostly autonomously, make independent judgments, and care for people at the most challenging time. It is critical that our professional learning ranks high on the priority list.

Paramedics are adaptable professionals functioning in unpredictable and unplanned environments. Our ability to remain calm and provide a high standard of care, make decisions and judgments, and act in a professional manner can be directly attributed to our underpinning knowledge and skill. While early learning sets us up for work, professional learning scaffolds and grows our capabilities. So how should you be planning and undertaking professional learning for the greatest benefit, and is there a difference between professional learning and professional development?

IT IS CRITICAL THAT OUR PROFESSIONAL LEARNING RANKS HIGH ON THE PRIORITY LIST

Professional development tends to be associated with a didactic style of delivering material, such as webinars or lectures, and is often a one-size-fits-all approach.

Professional learning is typically interactive and adaptive, associated with a more inquiry-based approach to enhance learning. Effective professional learning not only has the potential to improve outcomes, but can also be effective in recruiting and retaining paramedics. It is aligned with specific content and standards and, according to research, includes: The incorporation of active learning, is job embedded, is collaborative, it provides models, it includes coaching, it is sustained and continuous, and is aligned with industry goals, standards and assessments, and other professional learning activities (Archibald et al., 2011).



The conversation and focus are shifting from delivering professional development programs to understanding and supporting authentic professional learning. As the catalogue of learning grows at the College, we are acutely aware of the time constraints and fatigue all paramedics face on a daily basis. That is why we are working on ways to make meeting the professional development registration standard more interesting and relevant to your practice.

We are also aware that not everyone has the same needs when it comes to education or the same skills in planning their professional learning. So, our number one piece of advice is "a little bit and often". Don't try and do learning in big chunks; have a plan and aim for a small amount of learning on a regular basis. Watch this space because in the future we may have a new tool to help you plan learning to meet both the registration standards and help you advance your career and opportunities. For now, log on here and start: <https://paramedics.org/education>.

eLearning for professional learning (new in 2023)

- Understanding and caring for common mental illnesses in the community
- Understanding and caring for the pregnant person - Pregnancy physiology
- Understanding informed consent for paramedics - Paramedic responsibilities
- Understanding ethical practice and duty of care for paramedics - Paramedic responsibilities
- A tour of cardiology - Revisiting anatomy and physiology of the heart and conduction

What's on the horizon?

- A purpose-built advanced cardiology and electrophysiology comprehensive learning program for advanced practitioners
- eLearning in brain anatomy, understanding stroke clinical localisation and traumatic brain injury (TBI)
- Advanced wound care, skin closures and care of complex wounds
- Mental health emergencies, psychosis, and suicidality

As well as many more. If there's something you would like the Education Team to consider developing, scan the code or visit <https://app.sli.do/event/2ZtofJZ-vaLtKNpc9QkL9fS/live/polls> and tell us what you need.



WEBINARS, MENTORSHIPS AND GRANTS: WHAT'S NEW FROM THE COLLEGE'S RESEARCH COMMITTEE

Talking Research webinar

The College's Research Committee presents bimonthly Talking Research webinars live online to enhance member knowledge and promote understanding of research and its value to the paramedic profession. Hosted by the committee's Associate Professor Scott Devenish, the first webinar for the year was *Publishing research tips and tricks*. In this session, Prof Julia Williams (University of Hertfordshire, UK) presented an excellent guide on how to successfully publish paramedic research, followed by a lively "tips and tricks" panel discussion with experienced paramedic researchers Dr Alex Olaussen (Monash University), A/ Professor David Reid (ECU) and Dr Joe Cuthbertson (St John's Ambulance WA).

This webinar provides a comprehensive overview of how to get started writing a research manuscript, what resources are useful, how to choose the right journal in which to publish, identifying predatory journals, what the peer-review process is like, and the realities of rejection. If you missed this wonderful Talking Research event, it's available on the College website, <https://paramedics.org/recordings/publishing-research-tips-and-tricks>, and counts towards 1.5 hours of CPD.

To celebrate the 50th anniversary of the College, our next topic will be 50 years

of paramedicine research, exploring different dimensions in research, paramedicine research education, where it's going, and the vision for the future. Don't forget to register for this event: Wednesday 17 May 7.30-9pm AEST.

Paramedic Research Mentorship Program

The 2023 ACP Mentorship Program was envisioned by the Research Committee as a pathway for registered paramedics to learn about research directly from experienced paramedic academics. The nine-month program is well underway for 2023, and the first online Mentorship Workshop provided an opportunity for mentors and mentees to meet and gain an understanding of "What mentorship is" from College CEO John Bruning. Participants then heard about Stephanie Nixon's incredible account of the 2022 ACP Research Mentorship Program, and how this experience provided her with the tools and knowledge to pursue a career in paramedicine research. Mentors and mentees will continue to meet for informal discussions monthly and we are looking forward to our next workshop in June.

For those interested in learning more about the Research Mentoring Program, please visit <https://paramedics.org/research/mentoring>. We will be recruiting mentors and mentees for the 2024 program later in the year.

Grants Scheme

The College is pleased to announce that applications for the 2023 ACP Grant Scheme are now open. This year there is \$23,000 allocated to research grants in three different categories: Early career research grants (\$6000), higher degree by research grants (\$3000), and research dissemination and translation grants (\$1000). Before applying, please visit our website and review the grant guidelines and inclusion criteria to see if you are eligible: <https://paramedics.org/research/grant>.

Given that funding is competitive and to ensure a successful application, please take the time to review what is required ahead of time to ensure you provide the correct information. To help you with your application, Research Committee members Dr Louise Reynolds and Dr Nigel Barr have made a short video with tips where they will answer all your questions regarding the process. You will also be able to join them for a Facebook live drop-in session once applications open.

All information can be found in the Research section of the College website: <https://paramedics.org/research>. The Research Committee is looking forward to seeing the applications for this year's funding round and is excited to help promote paramedicine research into the future!



Meet the researcher: Dr Jaimi Greenslade

Jaimi Greenslade is an experienced researcher passionate about improving patient care in the acute setting. In the past 15 years, she has worked at the Royal Brisbane and Women's Hospital and the Queensland University of Technology, where she focused on developing evidence-based protocols for the rapid assessment of patients with chest pain and investigating methods for improved identification and management of sepsis.

Jaimi recently completed a paramedic degree and has commenced a graduate position with NSW Ambulance. She is excited to continue her research while working as a paramedic.

When Jaimi is not working, she enjoys spending time with her husband and two children. She is an avid runner and enjoys exploring national parks and trails with her friends.

CRITICAL CARE SUMMIT



25-26 May 2023

Twin Towns Conference and Event Centre, Tweed Heads

CONTEMPORARY CARE THROUGH COLLABORATION



A brand-new event on the calendar, we welcome all paramedics, critical care practitioners and those with an interest in complex patient care to join us for two days of targeted education and engagement.

To register and for more information visit www.paramedics.org/ccs2023

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COLLEGE CONFERENCES AN OPPORTUNITY FOR LEARNING, NETWORKING AND PROFESSIONAL GROWTH

By **Lauren Daws**, College Chief Operating Officer

As we enter the month of May, we are drawing close to the running of our first conference for 2023 and our first-ever Critical Care Summit at Tweed Heads on 25- 26 May. And while we are all busier than ever, I encourage everyone to try to get to one of our conferences if you can.

When I go to a conference as an attendee, I relish the opportunity to take my mind out of the everyday busy-ness of work and be open to new ideas and new ways of approaching my work, and take the chance to step back and view the big picture. How can I make a difference in the work that I am doing? What ideas may be presented that I haven't thought of? These opportunities for development and self-reflection are highly valuable and provide space and opportunity for growth as a professional.

A mentor of mine who recently retired mentioned to me not long ago that he wished he had made his professional development a priority. He said he always found himself too busy and thought, "That can wait, I'll get to it one day." On reflection now, he wonders how much improvement may have come to him and the impact of his work had he prioritised professional development for himself. He noted that he now sees the beneficial flow-on effects that could have been, not just in his own work directly but also the staff he worked with and managed, his colleagues and those with whom he engaged.

At our College events, you have the opportunity to broaden your network and speak with presenters, leaders in the profession, and other clinicians



from different sectors with diverse experiences. The conferences are also an opportunity for you to talk to the College's Board Directors and staff, and our committee chairs. Our Advocacy Team will be in attendance, and both they and our Member Services Team are keen to hear your insights so that we can continue to ensure our delivery (across all areas) is meeting the needs of you as our members and the profession.

We want you to be engaged with the College as your professional body in this time of rapid change and development for paramedicine. I reflect back on our CEO John Bruning's column in the previous issue of Response in which he highlighted the origins of the College and the objective of moving the profession forward for the benefit of all, so I encourage you to speak to us at events and share your perspectives.

As you know, this year our two major events are our Critical Care Summit

this month and ACPIC, our annual international conference, in September. The Critical Care Summit was born from a desire to provide targeted educational content to those in the field who are in the critical care or intensive care space, and those with an interest in complex patient care.

There was also a desire to focus on the strengths of multidisciplinary teams and bridging the divide between professions with the aim of improved patient outcomes and excellence in care. We envisage that all clinicians will gain valuable insights from this event, regardless of your current practice level, and we welcome all members and non-members to attend and learn from this unique event.

I encourage you to share the Critical Care Summit details with your colleagues and network, and I hope to see you in Tweed Heads later this month.

APPLICATIONS OPEN FOR COLLEGE RESEARCH GRANTS

The College is committed to enabling the development of discipline-specific knowledge through support of members undertaking research.

The development of knowledge that informs clinical practice, health service delivery or paramedic education is critical to the development of the profession. Well designed and executed research will provide the basis for evidence-based practice, particularly in areas where knowledge is lacking or incomplete.

Although universities and research centres have an obligation to provide appropriate supervision, statistical support and the infrastructure required to undertake research, the College recognises there are additional costs associated with research that may not be covered by universities and research centres. Such costs may be eligible for a College research grant.

There is one funding round per year, with applications now open to Friday 16 June 2023. Three types of research grants are available:

Early Career Research Grant (\$6,000)

The Early Career Research (ECR) Grant intends to support paramedic researchers transitioning from completion of a higher degree by research into the post-doctoral ECR period. This grant seeks to engage future researchers and develop paramedicine research capacity by embedding a novice researcher in the team. Additionally, the grant seeks to enhance collaboration between paramedic researchers across universities and ambulance services.

Higher Degree by Research Grant (\$3,000)

The Higher Degree by Research (HDR) Grant seeks to support paramedics engaged in HDR research (excluding Honours) through modest research project support.

Research Dissemination and Translation Grant (\$1,000)

The Research Dissemination and Translation Grant seeks to support the dissemination of research through conference presentation, publication or similar means.

For more information on our research grants, visit: <https://paramedics.org/research/grant>

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THE FACE OF CHANGE: FOR VICTORIA'S NEW CPO, THE GOAL IS SYSTEMIC REFORM



Paramedicine has undergone profound changes in recent decades, from expanded scopes of practice and professional specialisations to cementing its place alongside other health professions in higher education and research. A key component of this evolution has been the steady growth of women's representation, with women now comprising close to half of the paramedic workforce in Australia. But while the needle has shifted, many of the core challenges remain for female paramedics.

For Victoria's new CPO Dr Louise Reynolds, who is now Australia's highest-ranking female paramedic, those challenges are the remnants of a male-dominated profession that remain embedded across the services, and ones she has fought to dismantle throughout her career in her operational and academic roles.

"When I started, women were only 20-25% of the workforce; nowadays, in some states it's more than 50%," she said. "But back in the day, you had to prove you were up for the job. We were tested, but we still needed to show that we had the physical and the mental fortitude of our male colleagues. We had to adapt; we had to masculinise our femininity.

"In the literature, we're meant to be heroes and be emotionally detached, which stands in opposition to being female; I'm a female and I care, yet I needed to be hardened, be this emotional fortress, and have a super steely resolve. But it was anomalous in the sense that as health professionals we should show compassion, so not being able to show that or not having that steely resolve was diametrically opposed."

Dr Reynolds' journey into paramedicine began after her mother - a registered nurse, midwife, and Matron - discouraged her from following in her footsteps, having experienced firsthand from the early 1960s the male-dominated hierarchical hospital model at a time when nursing



A LOT OF PEOPLE DON'T WANT TO ACKNOWLEDGE THAT THERE ARE PROBLEMS

professionalisation was still in its infancy. Instead, she embarked on a degree in medical science, but soon learned it was far removed from the work of patient care and "helping people" that she aspired to undertake.

A friend of her cousin who was an ambulance officer mentioned that St John South Australia, as it was then, was

embarking on recruiting students as part of a shift in its operational workforce in the early 1990s from a largely after-hours volunteer service to a paid professional service. In March 1992, she was offered a position and commenced three-year diploma training as part of the service's 12th diploma group.

"Undertaking that sort of workplace training and graduating with the diploma, I could see the landscape changing. Having already been at university, I knew that was where I needed to go to progress. Charles Sturt University had just started up their top-up degree, or their degree-conversion course, so immediately on finishing the diploma, I enrolled at CSU and was one of the first graduates from that program.

I'M THE ADVOCATE FOR CHANGE

"At the time, St John was evolving professionally into the SA Ambulance Service; it was rebranding, going from the old hierarchical structures and very top-heavy ambulance service. That was because of the

new Chief Executive, who came from Aotearoa New Zealand and was quite visionary in that culture change. One of the units in the top-up degree was around health management, and it talked about culture, and I was like, wow, yes, this makes sense; this gave me context to what I was experiencing and why things were the way they were. That was really the light-bulb moment where I said, okay, I'm going to go into research."

She began studying at the University of South Australia, doing a higher degree by research and then becoming Australia's first female paramedic to complete a doctoral qualification in a career that has spanned national and international academic research and teaching roles.

Her university research focused on ambulance culture, describing what that culture was and why things were done the way there were: "Why do you do it that way? Who taught you how to do that? Do you know why you do it that way?" And while it enabled her to identify positive elements of the profession, it also exposed unspoken systemic problems.

"A lot of people don't want to acknowledge that there are problems. Part of the methodological dilemma was that I was an insider looking in; I was using a qualitative methodology, describing culture much like an anthropologist would.

Patterns, behaviours, values, beliefs and rituals became part of that description."

She found that there were deeply entrenched structural inequities across the profession, and inherent, unconscious biases and discrimination. And while the shift from vocational to pre-employment university education for paramedics has been the catalyst for a more equal gender balance and for greater cultural and linguistic diversity in the profession - "rather than just being white male and stale" - for some services, the culture has yet to shift.

"It's still creating these inequities in the workplace, particularly for women and for other groups within the workforce, and this is a concern because our classrooms are predominantly female. If I'm seeing inequities, then I'm going to call it out. That's my duty and responsibility. I have

to speak up, and if I see the change, I have to be the change. I'm the advocate for change.

"It's not just one organisation; it's the health system, and the health system reform process is a political agenda. It takes the Commonwealth and state governments - because there are reciprocities between them across funding models - for those sorts of commitments to happen, not just for women in paramedicine, but for the health system as a whole. That is the big picture, and that takes whole system reform."

For ambulance services, it also means a genuine change in organisational culture, challenging some of the more archaic values, beliefs and rituals that are still pervasive, and for women in particular, an end to the structural impediments that can limit longevity in the profession, including flexibility in rostering and work arrangements, and greater support for the pursuit of different career pathways.

"In the NHS (National Health Service) in the UK, paramedics can take on job rotational roles as community paramedics, working in primary health networks, and being in GP clinics where there are family-friendly hours and where they value the contribution of paramedics in health-care teams.

"In my role as CPO, I want to influence the systemic reforms that we need in terms of gender equity. I also want paramedics to be seen as a safe, viable, available workforce to address the inequities that currently exist across the health system and to expand the scope of paramedic practice in community and primary healthcare to address those issues."



BLOOD, SWEAT AND YEARS: BILL LORD LOOKS BACK AT THE PAST AND FORWARD TO THE FUTURE

Paramedicine was a vastly different profession when Associate Professor and Australasian College of Paramedicine Board member Bill Lord began his career at the Manly station in 1981. As providers of first aid and patient transport, ambulance officers, as they were then designated in NSW, were on road with only basic equipment and medications.

"When I started as an ambulance officer, we weren't able to take blood pressure because we didn't have blood pressure cuffs; we didn't take temperatures. We had a very rudimentary box of bandages, but we did have an analgesic, which unfortunately was better known as a dry-cleaning fluid.

WE HAD A VERY RUDIMENTARY BOX OF
BANDAGES, BUT WE DID HAVE AN ANALGESIC,
WHICH UNFORTUNATELY WAS BETTER KNOWN
AS A DRY-CLEANING FLUID

"Trichloroethylene (Trilene) was given to patients as an analgesic. It's an industrial degreaser and dry-cleaning fluid that was given using an inhaler, and it was quite effective once you got the patients to deal with the smell of it. It was discontinued, of course, because of adverse health effects and replaced with nitrous oxide. Like many things in the past, we resorted to some interesting things."

The mid-1980s saw the emergence of HIV-AIDS, accompanied by a wave of fear and paranoia that swept the country, particularly among healthcare workers who risked exposure to the virus. The infection prevention and control protocols surrounding blood that are standard today were non-existent, leaving paramedics with little protection.

"In those days, paramedics didn't wear gloves; we had no protection whatsoever. No face masks, no gloves, no sharps containers to put needles in, no nothing. It was amazing that we were working as Intensive Care Paramedics but we didn't have any basic personal protective equipment to use.

"I attended a case where a person was seriously injured and we transported him to hospital. At the hospital, one of the staff discovered that the patient was HIV positive and came out to tell me as I was in the back of the ambulance scrubbing the blood off the floor with no gloves on. My partner and I had to go and be tested."

Unbeknown to Bill and his partner who were waiting at the HIV testing centre in Darlinghurst - then the only clinic in Sydney that tested for the virus - someone decided to call the media to report on their potential exposure.

"They didn't even ask, they just sent the media because they thought it would be a really good story. But there was such a level of paranoia that the hospital staff told

us that because this was a vehicle rescue and there were police and fire assisting, all of the emergency services staff should burn their uniforms. There was that level of paranoia about it."

Fortunately, much has changed in the past 40 years. In 1985, Bill completed Intensive Care Paramedic training, and in 1990 moved into a training officer role at the ambulance education centre at Rozelle, where he worked both as an educator and as a clinician.

"Even though I've spent most of my career working as an educator, I've always maintained a clinical appointment as well. I think that's important to ensure that I'm up to date with contemporary aspects of paramedic practice."

WHAT A WASTE OF RESOURCES TO HAVE PARAMEDICS OUT THERE NOT PARTICIPATING IN BROADER COMMUNITY HEALTHCARE

He shifted into higher education in 1996 at Charles Sturt University, and later at Monash University as the head of the undergraduate paramedic programs. He then moved to the University of the Sunshine Coast as the Discipline Lead for Paramedicine, where he remained until his retirement in 2019. He is still an Adjunct Associate Professor at Monash University and an Adjunct Professor at the Australian Catholic University.

"I'm still registered as a paramedic because I still do a lot of professional work, which is very fulfilling. I do it because I enjoy it. I think I've still got a little bit to add to the profession."

In his more than 40 years as a paramedic, Bill has witnessed the many changes that have seen paramedicine become the highly evolved profession it is today. He said while the most significant transformation was Ahpra registration in 2018, it was preceded by a series of milestones and periods of growth within the profession that have shaped paramedicine in Australia in its present form.

The first was the introduction of Intensive Care Paramedics in the early 1970s. And while there was a mobile intensive care ambulance operating in Perth in 1969, the ambulance officers were still only drivers and didn't engage in any clinical care.

"Towards the middle of the 1970s, both the Victorian and New South Wales ambulance services, under some very good medical leadership, introduced Intensive Care Paramedics who had a much wider scope of practice to better manage heart attacks and other major trauma.

"This was the first time in Australia that paramedics took on a much broader range of skills and responsibilities. It was absolutely transformational, and it was really where the progression towards where we are at the moment as a recognised health profession began. At that point we're no longer seen as just drivers and providers of first

between paramedics' operational needs and their educational needs. The time paramedics required to be off shift to study had an operational impact that fuelled tension around the ability to provide appropriate education. Hence, training programs were typically "very short, sharp, and technically focused".

"It developed technical skills, but what it didn't do was develop a lot of the high-level critical thinking skills that are clearly very important for the job. The other thing that model of training didn't do was build research skills, because technical education wasn't designed or funded to build research skills. So there was absolutely no discussion of evidence-based practice or information-literacy skills, the sort of skills that you need to question aspects of your practice."

The one area of the profession he would like to see further evolve is the broader utilisation of paramedics in community and primary healthcare. With the level of training and professional specialisations now available, paramedics remain an overlooked workforce in addressing the challenges now facing Australia's health system.

"We're still talking about doctors and nurses. The government is talking about team-based care, but they have a very blinkered vision of what comprises team-based care. One of the reasons is that they're not funded to do it. You can't claim a Medicare rebate for this sort of work; paramedics don't have provider numbers. The ambulance service is funded to respond to emergencies and take people to hospitals, so until the funding model changes, they can't do it because they don't have the budget to do so.

"At present, it's difficult to get doctors and nurses into some rural and regional areas, and yet in a lot of those areas you've got paramedic staff sitting in ambulance stations responding to a relatively low number of cases. What a waste of resources to have paramedics out there not participating in broader community healthcare. That's precisely what paramedics who are working in private practice in countries such as the UK are already doing because their scope of practice is vastly expanded than within jurisdictional ambulance services."

DYNAMIC DUO: MORE THAN A CENTURY OF SERVICE FOR ORIGINAL COLLEGE FOUNDERS

When Les Hotchin, one of the original advocates for the formation of what is now the Australasian College of Paramedicine, began his emergency services career in the late 1950s as a civil defence volunteer in what later became Victoria's SES, Robert Menzies was Australia's Prime Minister and the country was on high alert for a potential nuclear attack.

As a new world order emerged from the ashes of the Second World War, a nervous world watched on as the nuclear arms race between the US and the Soviet Union heralded the start of the decades-long Cold War and a dangerous game of nuclear brinkmanship.

In response, each council in the country was tasked with setting up a local organisation to manage the fallout from an atomic bomb - the "universal fear" of the late '50s and early '60s - managed by volunteers who were responsible for developing plans to manage the public in the event of a strike.

"It became a bit of a Dad's Army, but it was reasonably effective," Les said. "They set up a training school at Mount Macedon in Victoria, and there you learned about what happened when a nuclear weapon exploded and how you would carry on in the aftermath."

"They provided each council with a very large truck like a military-type vehicle, a bit like a big furniture van, with wound dressings that been stored somewhere from the First World War. They were also in ambulances at the time because ambulance services weren't well off and they had to scrounge stuff from everywhere. The other thing we had were dosimeters; they were a little thing about the size of a pen and you carried them and they measured radiation - a miniature Geiger counter."

When the civil defence volunteers were required to undertake first aid training, Les signed on as a St John Ambulance trainee and went on to complete the requisite three certificates, and in 1966 became a permanent ambulance officer. In subsequent years, he progressed from ambulance officer to station officer and then into senior management as Regional Superintendent of Rural Victoria, Western Region, in a long and rewarding career that saw him at the forefront of the profession's development throughout the decades and a leader in the formation of what was to become today's College.

WE REALLY HAD A HUNGER, ALL OF US, FOR SOMETHING BETTER, AND THIS WAS KEY TO US

The forerunner of the College, the Institute of Ambulance Officers (Australia), came into being in 1973, but the groundwork for its establishment was laid in the 1960s, when a Melbourne-based organisation, the Ambulance Service Professional Officers' Association, grew tired of the lack of professional recognition and advocated for the establishment of an overarching body representing ambulance staff throughout the country.

Mick Davis ASM, a Member of the Order of Australia and currently the Volunteer Manager of QAS Ambulance Heritage and History, began his more than 50-year career in Rockhampton in 1964 in the then Queensland Ambulance Transport Brigades and rose through the ranks to hold a number of senior management positions. As one of the original advocates for the establishment of the Institute, he

travelled the country lobbying, mobilising support among ambulance officers, and holding conferences.

"We really had a hunger, all of us, for something better, and this was key to us. We were so bloody keen that we were going to different places," he said. "We went to places like Geelong, Melbourne and Adelaide - nationwide."

Their efforts paid off. The first recorded meeting of individuals to discuss the establishment of an Australian Institute of Ambulance Officers was conducted in Melbourne on 20 June 1971.

Laurie Shea, Vice-Chairman of the Ambulance Commission of Tasmania, convened the meeting "as it seemed apparent that there was a need for a body to bring together ambulance officers in Australia with a specific aim of increasing their professional competence and provide a forum for the exchange of technical information between leaders in allied disciplines and between ambulance leaders themselves".

The inaugural meeting of the Institute was held in Canberra on 30 July 1973 - it was to become the first Annual General Meeting of the Institute of Ambulance Officers (Australia). The initial membership was primarily in Victoria, Queensland and Tasmania, with other states following within 12 to 18 months.

However, while the formation of the Institute was welcomed by ambulance officers, it met with resistance from some service superintendents who, according to Mick, "seemed to be against paramedics progressing above anything that was considered to be their station".

"The resistance was strong. The formation of the Institute frightened the superintendents, although some were involved in its foundation. They worried

WE'VE GOT OVER A 100 YEARS OF CONTRIBUTIONS TO AUSTRALIAN AMBULANCE BETWEEN US

that it was going to become another industrial organisation. They wanted to keep us under control, and they didn't want to pay more wages for higher-level qualifications. I imagine they were also worried about unionising and having the support of the unions. But the momentum had already started, and it was strong; you couldn't stop it."

Mick, who was formerly the organisation's National President, said one of the biggest breakthroughs for the Institute was the introduction in 1976 of a national ambulance training curriculum and the establishment of a National Education Committee. "We had something we could hold on to and say, this is an Australian-wide qualification."

"The National Education Committee became the organisation that determined from then on the curriculum for all paramedic study," Les said. "Today that's the responsibility of the Council of Ambulance Authorities, but it's been continuous since the '70s, and it's become very influential on clinical practice now."

In 2000, the Institute changed its name to the Australian College of Ambulance Professionals (ACAP), and in its new incarnation it ushered in another major breakthrough in taking ownership of the paramedicine research space. Les said the establishment of a Research Forum in the early 2000s, initially in partnership with Monash University but later run solely by ACAP, was "the foundation of these conference breakout sessions that we have now."

"It gave paramedics, and students in particular, the opportunity to present papers in a proper fashion," he said. "It was a vehicle for the journey to own our own science. It was a part of our growing up."

In November 2011, a New Zealand Chapter of the College was established. There was upheaval in the organisation in 2011-12 with the establishment of two separate representative entities, Paramedics Australasia (PA) and the Australian and New Zealand College of Paramedicine (ANZCP) - a period of competition that saw both organisations progress and drive improvement in services to paramedics.

In 2018, initial discussions took place to bring PA and ANZCP together for the betterment of the profession, with successful discussions leading to members from both organisations voting to join together to form the Australasian College of Paramedicine from 1 March 2020.

Post-retirement, Les and Mick have both remained active in the profession in different capacities.

"We've got over a 100 years of contributions to Australian ambulance between us," Mick said. "We've lived through a lot of bastards; they're all gone and we're still here."

THE CHANGE IN THE EDUCATIONAL
MODEL HAD A PROFOUND EFFECT
ON THE PARAMEDIC PROFESSION
AND THE MAJOR EMPLOYERS

PROFESSIONALISATION OF PARAMEDICINE: REFLECTIONS ON 50 YEARS OF PROGRESS

By **Dr Peter O'Meara** FACP

Bendigo, Dja Dja Wurrung Country

Each of us who have watched and participated in the development of paramedicine in Australia over the past 50 years has our own perspectives and stories to tell. Like all life events, we remember events differently depending on our respective vantage points. In this brief overview, I recount my memories and interpretations with the benefit of hindsight.

My formative years were as Cadet Ambulance Officer in Victoria during the 1970s and then later on a regionally based paramedic and manager. At that time there existed the beginnings of the push toward professionalisation of what were then known as ambulance officers.

Not that many years before, the first Ambulance Officer Training Schools were established across Australia that facilitated cross-fertilisation across and within states. This complemented a strong history of senior managers moving between states; something that has continued into the 21st century.

Many ambulance services of the time were mini fiefdoms with local committees of management and all-powerful superintendents who varied in their enthusiasm for innovation. At the same time, unions

were pushing very strongly for improved wages and working conditions using a combination of direct industrial action and work-value cases in industrial commissions. At that time, almost all ambulance service staff belonged to the union.

In addition, there was sufficient drive and energy across ambulance services and among paramedics to form the Institute of Ambulance Officers that was loosely modelled on a similar organisation in England. The Institute organised the first national conference in Melbourne, established Response, and later conducted the first Australian Ambulance Competition in Shepparton, Victoria.

This was all part of a change in nomenclature from ambulance driver/bearers to ambulance officers. At one time, there were some officers appointed as bearer/mechanics and the job was seen as one requiring practical skills. There was no mention of evidence-based practice, sociology, or clinical decision-making in the training or day-to-day clinical practice. Throughout our training, little thought was given to the knowledge and skills that were required to deal with patients needing primary care services.

Clinically, the first steps were made to introduce advanced life support with the establishment of Intensive Care Paramedics in Melbourne and Sydney. This development helped establish higher standards and expectations that over time expanded ambulance officers' scopes of practice. One example was the widespread introduction of Entonox (nitrous oxide) and Penthrane (Methoxy-flurane) for pain relief, replacing Trilene (Trichloroethylene) that had been used since the 1940s; it was banned by the FDA in the US in 1977 as an anaesthetic because of its environmental risk. Most of these clinical responses were aimed at the response and management of acute cases.

By the 1980s, ambulance officer education was migrating toward the vocational education system (generally still within the State Ambulance Schools), where educational recognition was being given for the knowledge and skills of ambulance officers. At the same time, at least in Victoria, aspiring managers were being encouraged and supported to undertake university programs in management or health administration. Like some of my peers, I was lucky enough to receive a scholarship from the Victoria Health



Department to undertake a health administration degree.

The 1990s saw Intensive Care Paramedic programs extended across the major cities and, crucially, into regional Australia. This development was sometimes associated with an expansion in helicopter ambulance services that formed an important part of the statewide trauma system designed to reduce the toll of motor vehicle accidents mainly through improved medical retrieval systems and the direct conveyance of patients to those hospitals that had the capacity to effectively treat patients.

These initiatives were built on the earlier research conducted by the Australian Royal College of Surgeons on trauma systems that examined strategies that might prevent and mitigate accidents and improve medical care. One contributing factor to poor clinical outcomes that they identified was sub-optimal airway management at the scene of accidents by paramedics. Our role in the research project was to collect the field data on mechanisms of injury, seatbelt use, and seating arrangements. This was my first experience of how research could be used to change practice and system design.

During the 1990s, we saw the world-first introduction of paramedic degrees, most notably at Charles Sturt University in New South Wales. The other early degree programs that were offered were from Victoria and Monash Universities in Victoria, and Flinders University in South Australia. While this educational change started relatively slowly, this change in the educational model eventually had a profound effect on the paramedic profession and the major employers. A feature of our paramedic degree courses is that they share both content and flavour with nursing and allied health education, especially the inclusion of the social sciences that emphasize the social determinants of health that now underpin the wider adoption of community paramedicine.

THE FUTURE OF THE PROFESSION IN AUSTRALIA AND AOTEAROA NEW ZEALAND LOOKS POSITIVE WITH A GREATER DIVERSITY OF PARAMEDIC ROLES

The incoming staff become younger, better educated and more likely to question established practices, as well as being more diverse than in the past; for the first time, women began to make their mark on the profession. University degrees accelerated the feminisation of the workforce that had started more than a

decade before in New South Wales; it was slower to arrive in the other states, where resistance was entrenched in recruitment processes and, most significantly, within the existing ambulance service culture that had grown from its military origins.

The 21st century brought further change. In 2003, the College, in collaboration with Monash University, established a peer-reviewed professional journal, the Journal of Emergency Primary Health Care, that was championed for many years by Professor Frank Archer. This coincided with the first effort to develop a national research agenda that was reported in the first edition of the journal. During this decade, we saw the first paramedics

graduating with PhDs, with Australia leading the world. Building our research capacity has been, and continues to be, an important factor in the sustainability of higher education for paramedics and the growing of a broader perspective than emergency response and working for jurisdictional ambulance services.

From these early beginnings, our first and second generation of academic leaders have emerged. Internationally, Australian paramedics are recognised for their capacity to lead paramedic education programs and be at the cutting edge of paramedicine research. This creation of a cohort of paramedicine scholars has culminated with the establishment of the Paramedicine College of Deans. Paramedics are no longer seen as a group who can collect data for other researchers and be educationally overseen by other health professionals.

One of the major developments in paramedicine during this time has been the implementation of paramedic registration alongside other health professionals. This initially took place in England and more than a decade later in other countries such as Australia and Aotearoa New Zealand. Associated with this regulatory change has been the rise of paramedic professional associations and colleges such as the College of Paramedics in the United Kingdom and the Australasian College of Paramedicine locally.

In what remains a world first, in 2017 the State of Victoria created a Chief Paramedic Officer to sit alongside the Chief Medical Officer and Chief Nursing Officer to advise government on all matters connected with paramedicine, both within and outside Ambulance Victoria. Associate Professor Louise Reynolds, who was Australia's first female paramedic PhD, was recently appointed to this position following Alan Eade's successful six-year tenure. This position is invaluable as paramedics venture into primary care settings in response to patient and community needs.

The future of the profession in Australia and Aotearoa New Zealand looks positive with a greater diversity of paramedic roles emerging outside of the historical roles focused on trauma and cardiac arrest responses. The move toward paramedics working in primary care as community paramedics is gaining ground by the day.

We have also seen the elements of professionalisation gradually coming together because of the tremendous work and commitment of a wide range of people over the past 50 years. As a profession we owe a debt of gratitude to those from among our own ranks, medical and nursing colleagues, unions, universities, employers, and our own professional College. A caveat is that these trends toward professionalisation are not without challenge from various quarters, and it is sobering to realise that in some countries the journey toward paramedics controlling their own destiny is only just beginning. Our responsibility in Australia and Aotearoa New Zealand is to not squander our achievements and provide encouragement and support for those travelling the same journey.

THEN, NOW AND INTO TOMORROW: HOW FAR HAS AUSTRALASIAN PARAMEDICINE COME IN 50 SHORT YEARS?

By **Stephanie Nixon** QAS Advanced Care Paramedic
Charleville, Bidjara Country

In 50 short years, our profession has undergone massive clinical and organisational change. Some of us are lucky enough to work with paramedics who have seen these changes first-hand, and can regale us with tales of how ambulance bearers (not paramedics back then) worked with limited equipment and basic skills to achieve the same outcomes we strive for today.

Until 1976, emergency callers might have spoken to a female call taker (perhaps the wife of the bearer who lived above the station), but they would likely never have seen a female ambulance bearer on road. Fast forward to current times, where our skills and equipment have improved exponentially, and we have an almost 50/50 gender-split workforce. The 1970s could never have imagined such a huge transformation. Today, we will take a trip down memory lane to discuss some of the changes that have occurred, and we will theorise about some changes we might see into the future.

How did the 1970s look?

The early 1970's saw the first purpose-built ambulances appearing in the form of the Ford F100 series. These were made specifically for ambulance use and housed stretchers and limited equipment. Prior to these, normal vehicles were bought and retrofitted to be ambulances.

The introduction of purpose-built vehicles, with more storage for equipment, allowed paramedics to transition from the scoop and run, or diesel therapy mindset, to a more "mobile hospital" frame of mind. These new vehicles could house wheel-based stretchers, large chunky defibrillators, huge solid Entonox cylinders, as well as the current equipment. Two-way radios were fitted in all the ambulances to allow for timely dispatch and information relay from the station - where calls came from landline phones in patients' houses or perhaps a public phone booth (a rarity these days).

The 1970s saw the birth of formal paramedic training. Many services at this time began employing "training officers" to enable in-house training, which saw the introduction of multiple clinical levels. Prior to this formalised training, the only training ambulance officers might have received came from nurses and physicians who had an interest in emergency care.

Modern day COVID-19 precautions would wince at the regard for hygiene 50 years ago. Equipment was mostly reusable, and heavy. Suction lines, suction containers, and oxygen bag masks were all



MODERN DAY COVID-19 PRECAUTIONS WOULD WINCE AT THE REGARD FOR HYGIENE 50 YEARS AGO

washed out and reused on the next patient. Tourniquets were simply taken off and used on the next patient, rigid collars were returned and reused, while extrication equipment just got a "thorough" hose down and it was good to go!

Defibrillators were just becoming portable but were still not available universally. Mobile intensive-care style units had defibrillators that worked off a car battery, but not all ambulances were fitted with these (because they weighed 70kg). There were no fancy machines that could take all the vital signs, these still needed to be done manually. There was no way to do a 12-lead prehospitally; blood sugar testing would still take another decade to arrive, while tympanic temperature would take a further three.

Everyone's favourite extrication device, the KED (Kendrick Extrication Device) was a common sight in ambulances during the 70s, despite limited evidence regarding its effectiveness. Other modern extrication advice included the use of a long spine board for extrication and a rigid cervical collar for all suspected spinal injuries based on mechanism of injury, not physical injury. It makes you wonder what



clinical guidelines we might look back on in 50 years with the benefit of hindsight and evidence-based research.

Pharmacology was very limited in the 1970s. Entonox and Aspro were staples in many ambulance services - and this was the era when every patient received Oxygen Therapy (we now know a little better). Paperwork for patients was all handwritten and there was rudimentary record-keeping. Imagine trying to review patients, and if you wanted to find a specific treatment or injury, you had to trawl through all your paperwork that either needed to be mailed or faxed (you read that right!) to the hospital. Clinical reflection would have been a nightmare - and in a way, this highlights just how difficult clinical progression has been in paramedicine, and how far we really have come in the past five decades.

WE HAVE PROGRESSED FROM BEING PROTOCOL-DRIVEN TO CRITICAL THINKERS WHERE OUR EXPERIENCE, KNOWLEDGE AND CLINICAL SCOPE HELPS TO SHAPE OUR PATIENT TREATMENT

How does it look now?

True purpose-built ambulances, four-wheel drive vehicles for rural and remote areas, specialist vehicles and electric stretchers are a very common sight here in the 2020s. Vehicles built around the ever-expanding scope of the paramedic practice and the equipment used are the norm. Stair chairs are functional, easy to use and commonplace. Extrication devices are routine in all vehicles, and slide sheets, pat slides and heavy-duty lifting equipment can be found in specialised vehicles.

Radios, satellite phones, push-to-talk, mobile data terminals and mobile phones are all available in most ambulances. Airconditioning is a standard as is adequate internal lighting. There is little left that these ambulances can't do with central locking, the ability to leave the vehicle idling, and fridges. The majority of

our equipment has transitioned to single use and there is a huge emphasis on cleanliness (understandably!).

Paramedicine as a profession is now registered, cementing our status as pre-hospital clinicians. The main entry point for paramedicine is through tertiary education and state-based ambulances are no longer the only employment opportunity. Careers in the mining, industry and the private sector and private ambulance services are becoming more and more common as are academic-sector jobs. Paramedics now offer a huge range of pharmaceutical interventions, splinting, bandaging, and diagnostic equipment. A 12 lead is now a minimum standard of care for chest pain patients, something that wasn't possible for us 50 years ago.

We have progressed from being protocol-driven to critical thinkers where our

experience, knowledge and clinical scope helps to shape our patient treatment, which is now patient-focused. Oxygen is now correctly classed as a drug and not a standard treatment for all patients. Defibrillation is available to the public via AEDs, and automated CPR machines exist and are used in some locations.

Our trauma guidelines have been modernised, with a focus on the patient's entire presentation, rather than collaring and treating based on mechanism of injury. Patient records are digitalised, and information can be extracted and analysed with minimal delay. Most services have a research department who ensure best practice is occurring and new practice is being explored. I think most importantly, we are seen as an extension of the hospital, with valuable skills and interventions to offer for the betterment of our patients.

What will it look like into tomorrow?

In the future AEDs could be as common as mobile phones as they become lighter, less expensive, and more accessible. Video linking could become more commonplace to facilitate low-acuity patients, and paramedics will hopefully have a greater range of referral pathways and integration in the healthcare system.

Patient records could be accessible and health services should be integrated to allow for improved and holistic patient care. Our machines will "talk" with our devices, and long, laborious paperwork will become a thing of the past as we are able to sync our machines and upload all the patient's vital signs and ECGs. Manual tasking and equipment will evolve as we move into a more gender-balanced, younger workforce. Ultrasound, X-ray, and CT could be performed in specialised vehicles (or planes), bringing quicker diagnosis and treatment for fractures, strokes, and multi-trauma patients. There will be a continued emphasis on evidence-based practice and ensuring that we are doing what is best for our patients regardless of condition or location.

I doubt the paramedicine of 1973 imagined itself where it is today, but I can only imagine how this profession will look in 2073 given the magnitude of change we have seen over the past five decades. The only way to go now is forward - paramedicine is progressing and will continue to progress. We will see changes that we haven't even thought of yet as our profession finds its feet in the modern healthcare system. Community Paramedicine and Paramedic Practitioners herald the potential for further growth and integration into the broader healthcare system. As John C. Maxwell once said, "Change is inevitable. Growth is optional".



HATO HONE ST JOHN'S ECPS PROVIDE A LIFELINE FOR THE HEALTH SECTOR

Tāmaki Makaurau/Auckland, Aotearoa New Zealand



In 2010, in response to a “tsunami” of low-acuity cases in Aotearoa New Zealand, Hato Hone St John introduced Urgent Community Care Paramedics, the forerunner of today's Extended Care Paramedics, to alleviate the resulting pressure on ambulance services and the nation's increasingly overburdened health system.

Hato Hone St John ECP Clinical Lead Fraser Watson, one of the original cohort of the service's new model of low-acuity practice, said the challenges exposed a “mismatch” between what paramedics were trained and expected to do and the type of work they were actually undertaking.

NEW ZEALAND HAS SEEN WHAT YOU CAN ONLY DESCRIBE AS A TSUNAMI OF LOW-ACUITY WORKLOAD IN RECENT DECADES

“New Zealand has seen what you can only describe as a tsunami, or a surge, of low-acuity workload in recent decades. The drivers of that are common to many high-income nations: Barriers in accessing health and primary care, comorbidities, an ageing population, and societal changes about what people expect, when they expect it, and how they access care.

“Ambulances, naturally and in a holistic sort of way, have been filling those gaps in unmet need, but there was a still a gap in the low-acuity pathways, and extended care paramedicine as we call it today was intended to be that bridge.”

The first 10 years proved a success on all levels. The handful of UCC Paramedics employed during that decade recorded a low rate of adverse events, enjoyed high levels of patient satisfaction, and the paramedics themselves derived a deep sense of professional fulfilment in delivering a more personalised mode of care.

It was clear that the model worked and, importantly, that it was needed as demand continued to grow exponentially. The next step was to formalise the scope of practice, expand clinical practice guidelines, determine the educational pathways and qualifications, and develop authority-to-practice requirements.

Then came COVID-19, and what was intended to be a staged three-year strategy roll-out became an intense six-month push in response to the unfolding public health emergency. Led by Hato Hone St John Deputy Clinical Director Dr Craig Ellis and General Manager Clinical Improvement Kris Gagliardi, the ECP model was introduced with a full set of clinical practice guidelines following collaboration with and input from other health professions, including GPs, pharmacists, and the palliative care sector.

“We smashed it out and introduced it with some urgency, and this is where we're at now.”

Fraser said the key difference between ECPs and ICPs was the scope of paramedic practice.

“ECPs have quite a broad range of additional assessments, medicines and interventions aimed at safely managing patients in the community. There are about 60 additional skills and medicines on top of the paramedic scope of practice for ECPs compared with a more focused set of skills aimed at managing critically ill, high-acuity patients for Critical Care Paramedics.

“If an ECP is working in a clinic, it becomes a hybrid model of clinical governance where there may be a clinic-based set of standing orders that the paramedic will also be authorised to follow, so they'll have two sets of standing orders. There might be a bit of overlap there, but usually there isn't. And if there's a physician or GP there, there will be some medicines and interventions that will be enabled under direct supervision of that practitioner.”

At present, there are seven post-graduate courses in Australasia that meet Hato Hone St John's criteria for authority to practice, six of those in Australia, although Fraser said COVID-19 “pretty much put paid to anyone popping across the ditch” to study.

The vast majority of Extended Care Paramedics in Aotearoa New Zealand have completed a postgraduate diploma in paramedicine with an extended care specialisation through the Auckland University of Technology. It's a career pathway he highly recommends.

“In terms of job satisfaction and working with patients, doing things for them and with them rather than to them, the low-acuity ECP role has absolutely ticked a box for me and I think for a lot of other paramedics who are involved in this space.

“And a lot of the good work that an ECP does usually accrues to other health sectors. If you're managing a patient in the community and avoiding them going to an ED, that's a huge benefit for the ED and for the patient.”

CRITICAL CARE SUMMIT 2023: CREATED FOR ANYONE INVOLVED IN PARAMEDICINE.... AND BEYOND!



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For more information on the presenters and speakers, and to book your tickets, visit our Critical Care Summit website: paramedics.org/ccs2023



Dr Sanj Fernando, Keynote speaker

Sanj Fernando is an Emergency Physician working at Liverpool in Sydney. He has worked in aeromedical retrieval and pre-hospital care for over 20 years. Currently a NSW state retrieval consultant, he is also one of the two Co-Directors of DevelopingEM Ltd which is a not-for-profit organisation that seeks to support acute care and critical care services across the globe. In 2016 he commenced a collaboration with the Suwasiriya (the Sri Lankan ambulance service) to build a service from the ground up. It now services the whole country with a population of 21 million people. He has worked to further acute medical training in Cambodia, Myanmar, PNG, The Solomon Islands, Fiji, Cuba, Brazil, Nepal and elsewhere. He is currently setting up a global EMS group to share training, experiences, case discussions and protocols among developing EMS systems around the world.



QAS CLINICAL PHARMACOLOGY FROM 1991

By **Tash Adams**, QAS Critical Care Paramedic
Brisbane/Meeanjin, Turrbal and Jagera Country

The management of our critically ill patients has changed dramatically since 1991. To demonstrate just how far we have come, I will explore how the management of our most critically unwell patients has evolved.

Here we have two very different patients. The first is a globally traumatically injured adult male. He has been ejected from a vehicle during a rollover. He presents as ALOC but is able to obey commands, he has multiple traumatic injuries, including obvious fractured ribs with a flail segment, abdominal bruising, a suspected fractured pelvis, and bilateral femur fractures.

The second is a cardiac patient. He is the average age for ACS at 65-years-old. He has had sudden onset of central crushing chest pain 30 minutes prior to the arrival of QAS, he is pale sweaty and vomiting with 8/10 pain. He is bradycardic at 40 with inferior STE on his ECG and hypotension.

Most of you are probably working through what your priorities would be for these patients, but first let me take you through just how far we have come and just how much has changed.

In 1991, the management for our traumatically injured was far removed from what it is today. Oxygen was applied through a therapy mask and pain was managed with entonox, an inhaled analgesic agent that is also used as an anaesthetic. Limbs (and ribs) were splinted as best as possible and the patient was rapidly transported to hospital.

In 1991, our cardiac patient also got 15l/m of oxygen, aspirin was given for its antiplatelet effects and glyceryl trinitrate, a potent vasodilator, was administered to relieve pain symptoms. Even though this seems like quite a small amount of intervention compared with now, aspirin is still one of the most important pharmacological agents administered in patients with ACS.

Paramedic education was starting to evolve with the introduction of the Intensive Care Paramedic program in 1995 and the introduction of vocational education requirements for all.

Paramedics were now being taught to have a degree of clinical judgment around the management of their patients.

In 1995, the introduction of methoxyflurane, a rapidly absorbed inhaled analgesic, meant a more portable and lightweight option for pain relief compared to the cylinder and tubing of entonox.

1995 onwards saw the biggest changes yet to the QAS use of clinical pharmacology. The release of the CPM replaced regional guidelines and for the first time encouraged clinical judgment. This era saw the introduction into the QAS of its first narcotic analgesic, morphine. This revolutionised our paramedics' ability to treat severe traumatic and other causes of pain.

THE PERIOD FROM 2006 TO 2008 SAW THE LARGEST INCREASE IN CORONARY CARE CAPABILITY BY INTENSIVE CARE PARAMEDICS IN AUSTRALIA

When morphine was originally rolled out, it was only carried by ICPs, meaning any patient with pain unable to be managed by paracetamol, entonox or methoxyflurane required ICP back-up. It also saw the introduction of the antiemetic metoclopramide and the anticholinergic agent benztropine for alleviation of acute dystonic reactions.

Our trauma patient now can have a multiple-tiered approach to their pain relief, more comfort during splinting and extrication, and a more long-acting analgesic for the duration of their care. For the first time, IV access was now in the scope of practice for our ICPs, and our trauma patients could now be given IV fluid and mannitol, an osmotic diuretic.

TRAUMATICALLY INJURED PATIENT

- Adult male ejected from rollover
- GCS13 E-3 V-4 M-6 PEARL
- Multiple traumatic injuries, including long bone fractures
- External and suspected internal haemorrhage
- 8/10 pain

CARDIAC PATIENT

- 65 year-old male, 30 mins of central crushing chest pain and palpitations
- GCS15
- Nausea and vomiting
- ECG inferior STE
- Bradycardia and hypotension
- Ventricular tachycardia
- Cardiac arrest

It also saw the introduction of many anti-arrhythmic agents such as the sodium channel blocker lignocaine for the use in ventricular tachycardia, the anticholinergic agent atropine for use in patients with bradycardia with poor perfusion, and the alkalinising agent sodium bicarbonate 8.4% for use in prolonged resuscitation and electrolyte disorders, which may mimic primary cardiac events. The cardiac patient also could now be administered frusemide, a loop diuretic, if presenting with acute pulmonary oedema.

The period from 2006 to 2008 saw the largest increase in coronary care capability by Intensive Care Paramedics in Australia. On the back of pre-hospital research that examined the ability of our ICPs to diagnose STEMI on a 12 lead ECG and a cost-benefit analysis of pre-hospital fibrinolysis, work commenced that led to the introduction of the QAS reperfusion strategies.

Our cardiac patient can not only receive what is now considered to be standard care, but there were also now two pathways to coronary reperfusion that our cardiac patient could be streamed into depending on geographical location. This patient, after having his STEMI confirmed, would be either referred to an interventional cardiologist for pPCI or the ICP would autonomously administer fibrinolysis.

This led to the introduction of four new pharmacological agents into QAS practice. If this patient was referred to pPCI, he/she would receive clopidogrel, an antiplatelet and an adjunct medication to aspirin, and heparin, an anticoagulant.

If the patient was suitable for fibrinolysis administration, he/she would receive a loading dose of the anticoagulant enoxaparin, a dose of clopidogrel, a weight-based dose of the fibrinolytic tenecteplase, and a further subcutaneous dose of enoxaparin. ICPs also now had a wider range of antiarrhythmics with the introduction of amiodarone and magnesium into their practice. ACPs also now had the ability to administer IV adrenaline in cardiac arrest.

ALMOST OVERNIGHT WE WENT FROM CHANGING AN OXYGEN CYLINDER AFTER EVERY CASE TO SOMETIMES NOT OPENING AN OXYGEN KIT IN A ROTATION OF SHIFTS

Our trauma care also took a large leap forward with the introduction of morphine into the ACP scope of practice. Our severely injured trauma patient, wherever he is in the state, now has better access to targeted pain relief without the need for ICP back-up. ISCEP 2007 also saw the introduction of ketamine, an anaesthetic agent that in low doses is a potent pain reliever. Our trauma patient could now have his significant fractures splinted while in a dissociated state, meaning less pain during the procedure. IV access and fluid administration was now indicated for ACPs for the first time.

In 2012, both our trauma and cardiac patients are able to be administered fentanyl, a synthetic narcotic analgesic, for their pain and ondansetron, for any

nausea or vomiting. Ticagrelor, a P2Y12 ADP receptor antagonist, was introduced following findings that it reduced the rate of major cardiovascular events among patients with acute coronary syndromes compared with clopidogrel, and had the potential to improve coronary reperfusion and the prognosis for patients with STEMI treated with primary PCI.

The QAS became involved in the ATLANTIC randomised controlled trial to determine if pre-hospital ticagrelor

improved coronary artery perfusion on commencement of PCI. Following this trial, ticagrelor was introduced alongside clopidogrel for cardiologist choice when patients were referred to pPCI.

Our oxygen administration changed dramatically. While always having been indicated for hypoxaemia or poor perfusion, standard practice was to administer high-flow oxygen to all our patients regardless of etiology. Research out of the British Thoracic Society changed that. Oxygen, which really should always been thought of as a drug, had been shown to potentially cause harm. Almost overnight we went from changing an oxygen cylinder after every case to sometimes not opening an oxygen kit in a rotation of shifts.





One of the biggest steps forward in paramedic-delivered pharmacology in the management of the globally traumatically injured patient was the introduction of the CCP lead High-Acuity Response Unit (HARU) program. The QAS medical officers had been administering these medications for a few years, but it was the first time that the paramedic lead model was introduced.

With this came the use of ketamine, fentanyl and propofol as induction agents, and rocuronium, a non-depolarising skeletal muscle relaxant, to facilitate paralysis. The introduction of RSI allowed our patients to be safely intubated in line with best evidence-based practice. HARU paramedics also treated trauma patients in Southeast Queensland with TXA, an antifibrinolytic packed red blood cells, and Extended life plasma for transfusion in the bleeding patient, hypertonic saline, an osmotic diuretic that helps to reduce intracranial pressure, metaraminol, and an alpha antagonist for the treatment of post-induction hypotension.

TRAUMA PATIENTS IN SOUTHEAST QUEENSLAND CURRENTLY HAVE THE HIGHEST RATES OF SURVIVAL FOR MAJOR TRAUMA IN AUSTRALIA

The HARU group also participated in multi-centre research, including the POLAR trial for prophylactic hypothermia in brain injury (negative study) and PATCH, looking at pre-hospital versus in-hospital administration of TXA in trauma (we are keenly awaiting these results to be published). From 2013-2023, the group has also used research to implement and validate treatments, including point-of-care INR to predict hyperfibrinolysis for administration of fibrinogen concentrate, the use of calcium gluconate with pre-hospital blood product transfusions, and a new burns fluid administration formula, PHIFTEEN B, 15B.

Trauma patients in Southeast Queensland currently have some of the highest rates of survival for major trauma in Australia. The largest challenge with the introduction of so many agents and procedures is to ensure we are always moving forward towards the ED and ensuring that

only meaningful interventions are performed. Due to this level of practice being high risk and high stakes, a robust and continuous training and audit process has been introduced.

2014 saw the removal of lignocaine from primary VT treatment, replaced with an amiodarone infusion. Our cardiac patient was now recommended to be administered fentanyl as the narcotic of choice with a move away from morphine use in ACS.

2015 saw the rollout of the decision-supported fibrinolysis and decision-supported pPCI referral by ACPs. This allowed a platform for our ACPs to treat our STEACS patients in the absence of a CCP. This meant that more of our high-risk cardiac patients were receiving cardiac reperfusion strategies earlier. Our first DS fibrinolysis was performed by an ACP in 2015.

In 2016, droperidol, a butyrophenone antipsychotic, was rolled out to critical and advanced care paramedics across the state. It was introduced into QAS practice for the management of acute behavioural disturbances. This replaced the use of midazolam for a safer approach to the management of this patient cohort. In patients where adequate sedation was not achieved with droperidol, or it wasn't the most appropriate choice such as in agitated trauma, both ketamine and midazolam were available for use.

Cardiac arrest care in Queensland underwent some significant changes as well; CPR-induced consciousness was recognised as an emerging issue, with fentanyl and midazolam indicated for its management in 2019. To further improve our cardiac survival rate, QAS rolled out of amiodarone for refractory VF or VT to all ACPs, emphasising the antiarrhythmic administration over that of adrenaline in this cohort of patients.

Since 1991, there have been amazing advances in the scope of clinical pharmacology for our patients across Queensland and the future looks bright. Looking forward, the QAS is introducing the antibiotic cefazolin for administration in open fractures and olanzapine as a less-invasive oral form of sedation. QAS's continued investment of time and effort into pre-hospital research and the ongoing revision of current guidelines and evidenced-based practice will see us remain leaders of pre-hospital care in Australia.

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MADELEINE O'DONNELL: PIONEER OF PARAMEDICINE TERTIARY EDUCATION IN SA

Adelaide, Kurna Country

While university education is now required to qualify as a paramedic, the transition from in-house ambulance training to academia starting in the early 1990s was at the time a seismic shift for the profession, and one that was initially met with resistance in South Australia.

At the forefront of the push for higher education was former South Australia Ambulance Service (SAAS) Principal Educator Dr Madeleine O'Donnell, whose foresight and tenacity in the face of sectoral backlash laid the groundwork for the professionalisation of paramedicine and the educational pathways that are now available for paramedics.

Dr O'Donnell, who began her career as a nurse and later spent more than 10 years as a nurse educator teaching at the Royal Adelaide Hospital, joined St John Ambulance Service in 1989 as a TAFE Coordinator.

"With a Bachelor of Education under my belt and a decade of teaching behind me, I needed to make a decision; to transfer with nursing into the tertiary sector or to look at other options. The position with St John Ambulance Service was advertised and so I applied."

Not long after her appointment, St John became the SA Ambulance Service and her title changed to Principal Educator. Her role entailed managing and teaching Cert IV (Ambulance Officer) in subjects such as anatomy and physiology, paediatrics, and gerontology. While in-house training provided paramedics with a solid grounding in how to deliver patient care, she soon identified gaps in pre-hospital research and learning that were limiting the profession's potential.

"Back in the 1990s, educational content was predominantly dictated by the medical profession. In many ways back then, ambulance officers were on vocational par with hospital orderlies, but they were making independent clinical decisions and there was more to do apart from just 'load and go'.

"From an academic perspective, there was an absence of pre-hospital research content available for students to refer to and to guide their learning. I argued that there was a significant difference in patient care delivered within a hospital setting as it was vastly different from the pre-hospital setting."

Recognising the educational advancements that were possible, she spearheaded the change of accreditation from Cert IV to Associate Diploma, followed by full Diploma status and finally

tertiary integration at Flinders University - a milestone that was achieved in 1999. However, the transfer of paramedic education to the tertiary sector wasn't welcomed by some in the service.

"I faced many negatives, but I took each as a way of building character. One significant challenge was to nurture a change in the mindset of some SAAS administrators who were blind in seeing the advantages. A softly-softly approach helped, as did support from the VET sector and peers from interstate and the US. Students were fantastic allies for this, too. Back at their stations they challenged the 'why', the 'evidence' and 'can it be done another way'.

Before any changes could be considered, Dr O'Donnell explored the foundational structures of other models of pre-hospital care delivered in the UK and US, attending major international EMS conferences and conducting "crash course" seminars across the US.

"With evidence in hand to progress pre-hospital education, learning about US university models proved helpful in garnering supported from within the SAAS. The rest became an administrative exercise with the formation of a committee to progress the formal process.

"The acknowledgement and support of my national and international peers was paramount. I discovered people who held the same beliefs, vision, and mindset; people who were enthusiastic for the advancement of paramedic education, people who 'spoke my language'; I was no longer a little islet in a pounding sea of blockades. When it all boils down, I'm not the sort of person who gives up."

Dr O'Donnell moved on from paramedic education two years after it transferred to the tertiary level, completed Master of Education and Doctor of Education degrees and, after a brief retirement, spent another 15 years teaching Health Sciences at Flinders University. As an education pioneer, she welcomes the advances that have been made in paramedicine, both academically with the advent of postgraduate studies and in the growth of professional research.

"Paramedics researching aspects of their own profession to consolidate the difference between pre-hospital and in-hospital emergency care is so essential, and it is the cream on the top of the original vision that I had last century."

NEW UTAS SCHOOL OF PARAMEDICINE REFLECTS THE CHANGING FACE OF THE PROFESSION

By **Associate Professor Belinda Flanagan**

Head of School, School of Paramedicine, UTAS
Hobart/Nipaluna, Muwinina and Palawa Country



The expanding role and scope of paramedicine within the Australian health workforce prompted the University of Tasmania to establish Australia's first School of Paramedicine in 2023.

Since 2006, paramedicine has successfully operated as a discipline within the Tasmanian School of Medicine as part of the University's College of Health and Medicine. The decision was made to form a new school to provide an opportunity for the paramedic discipline to be more involved in the strategic direction of the university and provide a platform to represent the needs of the profession at the executive level.

The university acknowledges that the paramedicine discipline also has experienced significant growth as it addresses the rapidly changing healthcare needs of communities across the country. With the modernisation and expanding scope of the profession, the contribution of paramedicine within the Australian health workforce extends across all elements of healthcare delivery, from emergency service response to primary healthcare settings. Universities should be developing programs that go beyond the traditional scope of paramedics employed within jurisdictional ambulance services and offer distinctive and innovative programs that offer solutions to the current healthcare crisis nationally and internationally.

Demands placed on health services, workforce shortages, increased expectations from the public, and an aging population are providing opportunities for the advancement of the paramedic profession. Paramedics are considered to be experts in out-of-hospital emergency care.

UNIVERSITIES SHOULD BE DEVELOPING PROGRAMS THAT GO BEYOND THE TRADITIONAL SCOPE OF PARAMEDICS EMPLOYED WITHIN JURISDICTIONAL AMBULANCE SERVICES

Traditionally, paramedics have provided this care in community or industrial settings; however, the role of paramedics is evolving to include the primary healthcare setting.

This primary healthcare model is developing in response to chal-

lenges, including increased ambulance demand, the rising prevalence of chronic disease and decreased accessibility for out-of-hours care. As a result, the paramedic profession now includes the delivery of primary healthcare in addition to an emergency focus.

The profession's growth at the University of Tasmania has led to the development of strong relationships with key industry stakeholders across Tasmania, Victoria and New South Wales. As well as providing tertiary education to the Royal Australian Navy, the University is the preferred provider for post-employment education for NSW Ambulance to cater

Studies (Paramedicine Foundation Studies) provides an alternative entry for students who may not meet the direct entry requirements.

"It is only fitting that the University establishes the School of Paramedicine with the modernisation of the profession, moving from a VET model of delivery to tertiary education, and the subsequent growth and importance of the discipline in our communities," said Professor Luke Bereznicki, Acting Executive Dean of the College of Health and Medicine.

"The School of Paramedicine will help support increased flexibility and responsiveness to meet critical stakeholder requirements, providing distinctive practical learning outcomes."

Paramedicine is not a subset of another profession; as we develop into the primary healthcare space, we need to establish our professional identity and understand the expectations and challenges that this transition will provide. A School of Paramedicine that sits independently provides an opportunity to be innovative and explore the uniqueness of the profession. We see this as one of the first steps to paramedics being truly autonomous healthcare professionals.

to the surge of workforce required to manage current healthcare workforce shortages.

To help increase access opportunities, the University of Tasmania is offering a paramedic-specific tertiary entrance program. The Diploma of University

PARAMEDICINE EDUCATION IN AOTEAROA NEW ZEALAND: A PERSONAL JOURNEY

By **Graham Howie**

Senior Lecturer, Auckland University of Technology
Tāmaki Makaurau/Auckland, Aotearoa New Zealand

I joined the ambulance service in 1975 at the age of 21 (this was before many of my current AUT students were born!) My introductory education was a two-week “advanced first aid” course which included how to fill in our “case books”, convert miles travelled into kilometres, and proper uniform attire.

We were given a “buddy box” of bandages and dressings; Guedel airways (oropharyngeal airways) were a big thing, although not colour-coded. We carried oxygen cylinders (everyone got oxygen in those days) and entonox for pain relief (50% nitrous oxide). Suction had been recently introduced, but was only available inside the vehicle, running off the manifold of the engine. Following this fortnight course, I was assigned to seven days of night shift. We were single-crewed.

EDUCATION IS NOT JUST THEORETICAL KNOWLEDGE PLUS PRACTICAL SKILLS, IT INVOLVES CLINICAL REASONING AND INFORMATION LITERACY

Looking back on my career, I was extraordinarily lucky. I entered the ambulance service just as advanced life support arrived on the scene. We seized that ball and ran with it; like a wave, it lifted us up and we surfed the ride.



There was an enormous step up in terms of what we could do for our patients.

Portable defibrillation arrived (the first defibrillators were enormously heavy), we became very slick at inserting IVs, and quite quickly we gained a dozen drugs or more - eventually culminating in morphine sulphate, we were privileged to intubate. This all happened within the first decade of my frontline life in the ambulance. I pay tribute to the very first Ambulance Officers who pioneered those advances. They were examined by senior doctors, and the stakes for the future of ambulance practice were very high. One man told me his hands were so cold and sweaty (no gloves in those days) that he just crushed the whole ampoule of adrenaline he was required to draw up.

Education had to keep pace with this. Auckland St John employed nurses to introduce training for staff (Nurses! Shock, horror! We didn't even have female staff until 1981). My next course was industry-based, a St John Certificate in Advanced Ambulance Training (1978). Note the word “training” - no one yet thought of it as “education”.

However, 1978 proved to be a seminal year with the opening of the National Ambulance Officers' Training School (NAOTS), arising out of the first-ever telethon, a nationwide TV fundraiser. For the first time, a national curriculum was established along with three standardised levels of practice. Interestingly, the “Advanced Care” course was introduced earlier than “Intermediate Care”. That was an astute move to establish and anchor that level of practice within the service and community. Several thousands of full-time and volunteer staff received a whole new level

of ambulance training through NAOTS. They were heady days.

In the mid-80s, the NZ government rationalised education and many vocational training schools were absorbed into the tertiary education sector, polytechs and universities. In 1986, NAOTS became part of the Auckland Technical Institute (ATI) Auckland's biggest polytech, a department alongside schools for nursing, physiotherapy, and occupational therapy, among others.

I joined the tutorial staff at that time. At first, we continued in our premises above Pitt St Ambulance Station, but in 1990 we moved to the Akoranga Campus beside the other healthcare disciplines, and it proved a very stimulating place to work. ATI was ambitious and growing quickly. It changed its name to AIT (Auckland Institute of Technology) and in 2000 achieved full university status and became AUT (Auckland University of Technology).

I left NAOTS/ATI in 1999 and returned to the ambulance service as a clinical coach and tutor within Clinical Education. Through the '90s I had maintained my clinical status through extensive periods of “Technical Refresher Leave”. However, I also recognised that because my employment as a tutor was solely based on my ambulance experience, I had no real formal education.

RESEARCH IS WHAT DEFINES A UNIVERSITY. IT IS ALSO THE MARK OF A TRULY PROFESSIONAL AMBULANCE SERVICE

By 1998 I had graduated with a BA with papers in education, zoology, and in biological psychology (mainly neurophysiology). I finished an MSc in 2004 - see the photo of myself in ambulance uniform and a black academic gown (no, I didn't drive any urgent cases in that outfit).

Finally, I gained a scholarship and completed a PhD in Physiology in 2010. I was looking down a microscope at clusters of neurons (auditory cells, in a small animal model) when AUT Paramedicine rang me. They needed someone to help with postgraduate education and supervise higher degrees. I missed the interaction of the classroom and the unique characteristics of paramedic students (cells in a rat's brain didn't really compare). I returned to AUT in 2012.

Ambulance education became a full degree program in 2000. The three-year Bachelor of Health Sciences (BHSc) is a generic degree across healthcare disciplines, with paramedicine students sharing the first semester of foundational studies alongside nursing, podiatry, and other AUT health students.

Education is not just theoretical knowledge plus practical skills, it involves clinical reasoning (insight into why we do what we do, plus clinical judgment) and information literacy (understanding research and where to find answers in a rapidly changing medical world). There are more than 1000 hours of clinical placement in a range of settings, predominantly on-road but also including such places as older-age facilities and mental-health care teams. We aim to produce a “road-ready” practitioner.

The department maintains strong collegial links with industry; for example, we crew an operational ambulance (day shift only) to help staff maintain clinical and operational currency, on which students ride along. Formal links are via the standing Advisory Committee, where we report and dialogue with industry and other stakeholders.

The BHSc in Paramedicine was originally taught to Advanced Care level, but those specialist roles are now taught at postgraduate diploma level. This postgrad education is provided for two vocational roles, Critical Care Paramedic and Extended Care Paramedic. The clinical development for these roles is via an internship governed by industry. AUT provides the education, but the employer reserves the right to grant ATP (Authority to Practice).

We offer several master's programmes and a doctorate, all of which have a focus on research. We are able to access ePRF (electronic Patient Report Form) databases through our collaborations with Hato Hone St John and Wellington Free Ambulance (many thanks to both services), and these can be probed for research projects of varying sizes.

Our Master of Health Practice in Paramedicine offers an introduction to research via smaller retrospective observational studies. The MPhil and MHSc degrees are larger and require a thesis (either quantitative or qualitative). To work at AUT, academic staff require at least a master's qualification (or working towards one). Numbers of staff are working on their doctorates and producing very fruitful and informative findings.

Research is what defines a university. It is also the mark of a truly professional ambulance service. Paramedic practice needs to be evidence-based. We need to be able to validate what we do and be up to speed with current research so we can adapt our practice for the benefit of our patients and communities. We need to be not just reading research but actually doing the research ourselves, in our own settings and contexts. Likewise, the education of paramedics must be informed by research, and hopefully taught by scholarly clinician-scientists.

This has been a personal narrative. I loved the road; I think I grew up there and became a man. Then teaching became a true vocation, a calling, to see others achieve their full potential, and to deliver top-class patient care. Research has stretched me even further, and it has taught me how to think.

The current team at AUT is immensely supportive. Teaching is rich and innovative; tutors go the extra mile. Research links with industry are strong. Together we have formed a Paramedicine Research Unit to guide and coordinate research efforts. The transition (and overlap) from clinician through education to researcher at AUT is natural enough, but it still amazes me how far we have come. I am still learning, still contributing, and I have been part of a remarkable team of people who, over 50 years, have changed ambulance practice and education beyond all recognition.

This article is dedicated to Warwick Manning, John Henwood and Ross Biggs (my original mentors at NAOTS); to Brenda Costa-Scorse (who set up the original degree programme at AUT); and to Tony Ward (astute leader and innovator, encourager of research, current HOD of Paramedicine at AUT).

BRIDGING THE GENDER GAP IN PARAMEDICINE



By **Alisha McFarlane**

Lecturer, School of Nursing, Paramedicine and Healthcare Sciences, Charles Sturt University Bathurst, Wiradjuri Country

Paramedicine derives its history from the Knights of the Templar and religious sectors who established first aid units in the 1800s.

They responded to the sick and injured and transported them from sites within the community (e.g., roads and homes) to definitive areas of care. This service was also deployed on various battlefields, most notably Crimea, and thus ambulance officers became associated with the military; an association that our hierarchical structure still reflects today.

Besides their military role, ambulance services became more common and increasingly populated early in 19th century industrialised cities (Townsend, 2017; Maria, 2021) but retained their paramilitary structure and uniform. It is relevant to note that during the Crimean War in the 1850s, nursing was also professionalising (as promoted by Florence Nightingale), with nursing being distinct from the

work of ambulance officers in several ways, not the least being that nursing was undertaken exclusively by women and ambulance work by men (McFarlane, 2022).

Rapid industrialisation saw the vocation expand its education and training programs to form St John Ambulance Australia and military-style “ambulance brigades” to address the growing community needs. Structural and legislative reform continued to occur before finally contributing to the development of the first Ambulance Act in Australia in 1919 (Townsend, 2017; Johnson, 2015; Maria, 2021). The work involved included the acute management of severe physical trauma associated with industrial

Despite being barred from voting and disallowed from engaging in work outside of the home, women made an important contribution to the organisation of St John Ambulance from the outset (Howie-Willis, 1983; Maria, 2015). However, despite completing the same education and training programs as their male counterparts, women’s involvement in the organisation was confined to nursing-based responsibilities in the community.

The decision to limit women to these roles was driven by social norms and expectations of what “women’s work” entailed. (Howie-Willis, 2009). The previously established normative gendered division of labour was disrupted during the

WOMEN WERE NOT FORMALLY RECOGNISED FOR THEIR SKILLS AND CONTRIBUTIONS AS AMBULANCE OFFICERS UNTIL 1979

machinery and site accidents, and horse and later car injuries, among others. It was explicitly communicated that women were not suitable for the work because of its nature (Public Bodies Review Committee, 1984).

second world war when women assumed many roles previously only undertaken by men due to the labour shortage. This included first aid and ambulance services. The government formally recognised women as ambulance officers during this



The field of paramedicine has transformed in recent decades from what was originally a male-dominated, trade-based workforce to a highly skilled profession that delivers quality healthcare in a dynamic, out-of-hospital environment (Townsend & Luck, 2019; Howie-Willis, 1983; Bennett et al., 2021). This shift, and the move to tertiary education, saw a marked increase in the number of women engaged in the profession (ABS, 2017), with women now accounting for 47% of the Australian paramedic population (Paramedicine Board of Australia, 2021).

Women can now be found undertaking roles such as Critical Care Paramedics, Special Operations Paramedics and extended care and practitioner-based



period; however, it promptly retracted its delegation with the return of men from the war (Howie-Willis, 1983; Little, 2008).

Despite the ongoing professionalisation of paramedicine and other previously male-only occupied professions recognising women decades earlier (Prenzler, 1998; Hanna-Osborne, 2019; Townsend, 2017), women were not formally recognised for their skills and contributions as ambulance officers until 1979 (Shugg & Hotchin, 2014; Howie-Willis, 2002), although it took a further eight years for the last state in Australia to formally accept women into their ranks.

roles, to name but a few. They continue to strive for excellence and excel in our profession, positively contributing to patient outcomes and the delivery of optimal healthcare in our communities.

With a renewed focus on gender equality in all Australian workplaces, the Australasian College of Paramedicine and the Women in Paramedicine Working Group seek to promote, support and advocate for women in paramedicine in Australia and Aotearoa New Zealand, and continue to highlight the wonderful work and contributions they make to our professional culture and workplace.

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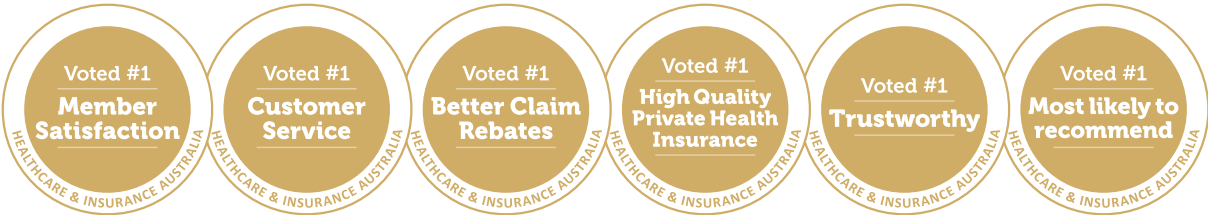
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WOMEN IN PARAMEDICINE

RONA HALLIWELL: FLYING INTO THE FACE OF DANGER

Melbourne/Naarm, Wurundjeri Country



In the years before paramedics took to the skies in Victoria, the job of transporting patients across the state was the responsibility of a cadre of remarkably courageous female flight nurses.

Among the first of Air Ambulance Victoria’s nurses was the unflappable Rona Halliwell, whose 13 years in the service from 1969 to 1982 included night-time landings on dark fields, a smoking engine over the Bass Strait, and keeping patients suffering horrific injuries alive, often for hours, without the medication or equipment that is standard today.

Looking back over her time in the air, the 90-year-old said it was by chance she had embarked on her ambulance career.

“I was a nurse doing a cardiac course when heard I about air ambulance and thought, yep, that’s my job. I’m a born nurse. That’s all I ever wanted to do in my life, and I love flying, so put the two together and I’m in heaven.”

It wasn’t a role for the faint of heart; just herself and a pilot on a small, fixed wing aircraft with room for two stretchers and three seated patients, working first out of Moorabbin airport and later out of Essendon at all hours of the day and night, enduring

adverse weather conditions, potentially perilous landings on makeshift airstrips, and having to adapt to the challenges of keeping patients alive in a non-pressurised cabin that required the pilot to fly below 5000 feet.

While the effects of altitude on certain medical conditions are now well documented, it was largely trial and error for the early flight nurses. Blood transfusions and drawing blood proved troublesome; bleeding became more severe, blood pressure fluctuated, and patients who were having seizures worsened; basically, “everything got worse once you got to altitude”.

“The aircraft weren’t pressurised, so in those cases we had to ask the pilot to fly low and then the patient would stabilise.”

The airstrips of 50 years ago were little more than “grass airports”, making landing a matter of constant initiative. On night flights to smaller country towns, residents lit fires to enable the pilot to determine wind direction from the smoke generated and calculate the safest way to land, or would hastily set out lights to guide the aircraft to the landing area. In other areas, the greatest challenge was local wildlife.

“If you went up to Bendigo early in the morning, you had to buzz all the kangaroos off the strip and then go around again and pray like mad that they were gone. In Mansfield, there was just a grass strip and you had to buzz the sheep away.”

Storms and occasional engine malfunctions added to the challenges, particularly in keeping patients calm during flight when conditions became rough. One flight into a particularly bad storm left all three patients screaming in fear.

“I held the hand of a woman on a stretcher. She held my hand so tight that when we landed I had a cut right across my hand. Another time we were going to King Island in the Bass Strait and smoke was coming out of the engine at the front of the plane. The pilot was working like crazy and then it settled down and he turned around and he said, ‘You see, there was all this smoke’, and that was the end of that. But I loved it; it didn’t worry me.”

Agricultural and industrial accidents were common, as were amputations. On one flight transporting a man whose leg had been amputated, the severed limb was stored in a locker visible to the patient.

“I realised when we took off that the patient could see his leg, so I sat over him for the whole trip so he couldn’t see it. Another time there was an explosion at a Shepparton factory and I brought three of the women back. One lady was badly burnt; her eyes were burnt and she had no hair left on her head. That was horrific. But no one ever died on my shift.

“The best thing is that you’d have a bad patient and you’d think, I got them down, I did it. The lady with those terrible burns lived, and years later I got to take her back home. Getting to take patients home that you’d thought might not make it was very rewarding. Air ambulance was my love.”

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MAKING A DIFFERENCE: THE INDOMITABLE SPIRIT OF SIMONE HAIGH ASM

Tasmania, Muwinina and Palawa Country

For someone who accidentally found her way into paramedicine, Simone Haigh ASM has left an indelible mark on the profession throughout her career.

The Ambulance Tasmania Intensive Care Paramedic and Coordinator of Clinical Practice was an exercise physiology student when a friend in the medical science faculty mentioned that he was an ambulance volunteer and asked if she would like to tag along for a shift.

"So I went along and signed up, and basically that's where it all started. On that first shift, I had quite a bad psych patient, then there was a guy with a cramp, and then there was a multi-trauma patient. It was the gamut of ambulance service basically in one night. But I really enjoyed the challenge - not that I did much as a day-one volunteer - but it made me go, yeah, I could really do this, I want to do this for my career."

Simone worked as an on-road paramedic for five years before studying to become an ICP, and in 2018 spent 18 months as a paramedic educator with AT, teaching ICP courses and mentoring interns, followed by branch relief work, often in isolated areas of the state with limited health services systems and socioeconomic disadvantage - essentially, "all those social determinants health".

"I've worked quite a lot down the west coast of Tasmania, particularly in Zeehan on the rugged west coast. All the things you hear about Tasmania being cold and windy, that's the west coast. And it's challenging."

When COVID-19 reached Australia's shores in early 2020, Tasmania became the first state to impose border restrictions. The subsequent closure of the North West Regional and Mersey Community hospitals in Burnie and the quarantining of 1300 staff left paramedics shouldering the burden.

"We were flat out having to take everyone to Launceston, which is about 100km away. We drove back and forth to Launceston multiple times a day, and it was tough, really tough."

THERE ARE MORE WOMEN THAN MEN NOW ON-ROAD, BUT THE MANAGEMENT DOESN'T REFLECT THAT

A long-term shoulder injury sustained on a job during that period saw her shift into her current role with AT as the Coordinator of Clinical Practice. And while she values her career and the experiences it has brought, being a woman in paramedicine coming up through the ranks in a male-dominated profession in decades past presented barriers in pursuing higher management positions within the service.

"If they didn't like you, you didn't progress. I have people now saying, why didn't you go into management, why didn't you become a duty manager? Because I didn't have an opportunity; there were just none of those opportunities there. Basically, my career progression was

stopped by old-school managers. That's not uncommon for women in ambulance services nationwide.

"Most services, no matter how hard they try, are still dominated by men in upper management. There are more women than men now on-road, but the management doesn't reflect that, and that's pretty much in all the services. There's still that sort of stigma and bias against women because of their perceived role in society and their role in life. And I think that's something that's still challenging

for ambulance services to really grasp. There's still a cohort of those males that have come from the days when women didn't have the type of representation they have now, so there's still a certain type of mindset present.

"However, a massive positive at the moment is the fact that Louise Reynolds is now Victoria's Chief Paramedic Officer. That is probably one of the biggest things for women in ambulance ever, because now those women coming into paramedicine know that a woman can do that, women can progress, and I think that is absolutely profound."

Denied opportunities to pursue a career in management, she instead forged her



I WAS JUST REALLY PIG-HEADED AND STUBBORN, AND I WAS DETERMINED THAT WE NEEDED TO MAKE A DIFFERENCE

own path, becoming a Paramedics Australasia Director and Vice-President, an Australasian College of Paramedicine Board member and College Fellow, a union delegate, and ambulance executive sub-branch president of the Health and Community Services Union.

"I put those strengths into other areas that still help people, but just not necessarily what I'm employed to do."

First and foremost, though, has been her commitment to the mental health of paramedics and other first responders; a commitment that was further strengthened following the suicide of a close friend. It left her questioning how many people had to die for things to change in the mental health space and fuelled her determination to take action to address the situation.

"I was just really pig-headed and stubborn, and I was determined that we needed to make a difference. Something needed to be done, because if we're suffering, so are the other services and other agencies."

She spoke with Senator Anne Urquhart at a Christmas party and asked her what was involved in launching a senate inquiry. Senator Urquhart, whose sister was an emergency nurse at North West Regional Hospital, was already supportive

of first responders' mental health and offered her assistance, leading to the 2018 Senate Education and Employment References Committee inquiry on "The people behind 000: Mental health of our first responders", the first inquiry of its kind in Australia.

Simone, who wrote the terms of reference for the committee, covered all facets of first response - paramedics, SES volunteers, nurses, surf lifesavers, police - anyone who in the course of their work was exposed to trauma.

"And also our communication staff; they're the forgotten people in a lot of this. They answer the phones and take the calls, but imagine being on the end of a phone trying to will an ambulance to get there and you can hear someone dying. That must be just so traumatic to listen to. I said, we need to support those people as well, so we made it so it was really open-ended for any first responders. Anne took it to the Federal Government and all sides of parliament agreed to the terms of reference and it was accepted on the 27th of March 2018."

The inquiry received more than 160 submissions from as far away as Canada, including the Black Dog Institute, Beyond Blue, the Royal College of Psychiatrists, and the Australian Nursing Federation.

What was initially intended to be two hearings, soon became six, with a year required to write the report. And while the inquiry was largely well-received across the different sectors, she met with hostility from some who were vocal in their opposition.

"I copped a hard time. I got a lot of abuse from people saying, how dare you go and do this. They couldn't see the big picture, and I think they thought I was going after them because they had a mental health problem, when really, I'm trying to help them and either stop people suffering those injuries in the first place or support them with those injuries so they can be a functioning person."

"In the long run, people have seen the positive side to it, but at the time people took it really personally, and it was incredibly difficult to manage."

Unfortunately, the majority of the recommendations that were made weren't acted upon and were instead subsumed as part of the previous government's mental health response in the wake of the Black Summer bushfires.

"It was just completely disregarded. It was a kick in the guts."

However, she remains hopeful that through events like the Heart 2 Heart Walk - a long-distance walk with the primary objective of seeking an update and commitment from the Australian Government in relation to the inquiry - will see long-overdue action taken.

"They really care about the inquiry, and they want to have the recommendations implemented. I was surprised that there are people out there, and not just me, trying to get this off the ground. And it's really heartening to know that it wasn't all in vain; that people genuinely do care about what has come out of this inquiry and the recommendations and the importance of those recommendations."

UNCHARTED TERRITORY FOR WOMEN IN PARAMEDICINE

Marburg, Jagera Country



Professional life for women in paramedicine was vastly different when two-time QAS Paramedic of the Year Carmen Waqanaceva began her career 30 years ago in the Northern Territory.

When she joined St John NT just shy of her 21st birthday in 1993, she was one of only a handful of female paramedics working in the Territory. Stationed at Tenant Creek, a five-person operation, she initially faced resistance to her employment from some of her male colleagues who thought the posting was ill-advised, citing her age, her lack of experience, and what they perceived to be her inability to cope with the demands of the job in a small, remote community.

"Some of the male officers classified me as being inexperienced and didn't think that a female should be going to a place like Tenant Creek and working at an isolated all-man, on-call station. But it didn't take long to prove to them that I could cope with it, and then I was accepted with open arms."

It was the first of many obstacles she and other female paramedics had to negotiate in the years before women were fully integrated into the profession and provided with the level of organisational support that is now standard. After a three-year stint in Tenant Creek, she transferred to Darwin and in 2001 fell pregnant with her first child in 2001, becoming only the third pregnant NT paramedic.

Both faced the same challenges in a male-dominated profession that was unprepared for the needs of women who had children. However, unlike other jurisdictional ambulance services in Australia where support for female paramedics at the time was progressing, in the NT there was no maternity leave, no maternity uniforms, and few professional accommodations available for women "because they just didn't have the necessity for it".

"I had to make my own maternity clothes, and because there was no maternity leave, they forced you to take six weeks off after having your baby. You had to do that with your annual leave, so what I did was accrue leave and I took my long service when I had my kids. And then, of course, you had to come back to work because you ran out of time. That said, though, St John was very good; they facilitated alternate duties when and light duties when we were pregnant, so I was able to do administration and communication work, but it was back on road but when I returned."

Her years in the Territory also included contract work through St John on a mine site and as a medic on a seismic vessel in the South China Sea laying cables on the ocean floor. On board the Norwegian ship

where superstitions were rife and women on boats were considered to be bad luck, her first few days at sea as the lone female among the crew were "very uncomfortable".

"I'd sit at a table and they would all sit two seats away from me. Nobody would ever come and sit next to me. It took me a lot of a lot of time and effort to break through to a lot of the crew and be accepted. But by the end, it was fantastic."

"The oldest guy on the boat didn't talk to me the whole time; every time I was there; he would run away from me. But on the catamaran taking us back to shore on the last day, he bought me a beer. Superstitious as he was, I think he was just grateful that he'd survived having a woman on board."

In 2005, Carmen and her family moved to Queensland, where she joined the QAS after requalifying as a paramedic under the state's then requirement for recognition of prior learning and became a Critical Care Paramedic in 2006.

"For me, still being here 30 years later is a highlight, and if I can do another 10 years, I'd be even happier."

I HAD TO MAKE MY OWN MATERNITY CLOTHES

NORTHERN EXPOSURE: A LIFE OF SERVICE IN REGIONAL TASMANIA

Ulverstone, Tasmania, Palawa Country

After 28 years on the job, Ambulance Tasmania Intensive Care Paramedic and Paramedic Educator Tammy Lee last month donned her uniform for the last time.

The majority of her career was spent working in regional and remote areas overcoming the geographical challenges of the sparsely populated north and northwest regions of the state.

she began her career. At the Devonport station, there was just her and another female, with "about eight" others across the two regions.

While the profession was at the time largely male-dominated, she found acceptance from the majority of her male colleagues, which she said was helped by being older than the newer female recruits.

tion of paramedicine in recent years, but there was still more to be done to enable paramedics to contribute more broadly to primary healthcare and operate beyond their traditional roles in jurisdictional ambulance service.

Tammy said it was time for other health professionals to recognise the contributions paramedics can make to primary care and work towards their broader integration in the health system to alleviate the much-publicised burdens on the health system and on ambulance services.

"We have a lot of chronic health problems, which is where our practice has changed. Across the board for ambulance services, the majority of our training is far less than 10% of what we do - the really acute work - our workload is predominantly primary health, especially in rural areas because there are few alternative pathways."

"If I could wish for anything, it would be that our paramedics are recognised as an underutilised resource by those in the health and the medical fraternity. They have a lot of practical knowledge and are often vastly more experienced in handling low and medium-acuity cases than nurses. That would be the change that I would want to see."

IF I COULD WISH FOR ANYTHING, IT WOULD BE THAT OUR PARAMEDICS ARE RECOGNISED AS AN UNDERUTILISED RESOURCE BY THOSE IN THE HEALTH AND THE MEDICAL FRATERNITY

"When things happen in rural areas, distance is your enemy; one, because of the time it takes to get to a patient, and two, because it's not just as simple as loading someone into an ambulance and arriving at a major hospital."

"On the northwest coast we do have a helicopter based in Hobart, but we didn't always have one. So there were lots of retrievals, either by air or road; you would get them to one spot, stabilise them and move them on, but the time to locations is extended because of the distance."

Tammy, who started out in nursing before moving into paramedicine, was among only a handful of female paramedics working in the north and northwest when

"I was mature when I started; I was in my mid-30s, married with children. I think if I'd have been a young single person it may have been a little different, but I was a mature female with a bit more life experience. Plus I'd been a volunteer for a number of years, so I knew a lot of the ambos and I knew a couple outside of ambulance service in social settings, which made things easier."

"I appreciated that it was a big change for some of these guys that had been around a long time, having to acknowledge that they had females in the station, but I think majority of them accepted it."

The growth of women in the profession is but one component of the rapid evolu-

Photo by Rodney Braithwaite, published in *The Advocate*

REPRESENTATION IS HELPING TO CLOSE THE HEALTHCARE GAPS FOR INDIGENOUS AUSTRALIANS

Brisbane/Meeanjin, Turrbal and Jagera Country



With the continued under-representation of Aboriginal and Torres Strait Islander Peoples across Australia's health workforce, jurisdictional ambulance services throughout Australia are working to bridge the employment gaps with a range of support programs aimed at providing First Nations People with much-needed educational and vocational pathways into paramedicine.

According to the Ahpra 2021/2022 annual report, at present just 1.8% of the paramedicine workforce identifies as Aboriginal and/or Torres Strait Islander. To address the lack of representation, in 2012 the Queensland Ambulance Service launched the Indigenous Paramedic Program (IPP) to provide equality, employment, education, and development opportunities for Aboriginal and Torres Strait Islander peoples.

For QAS Pitta Pitta paramedic Tiarne Hilton, the IPP provided her with the opportunity to realise a career ambition that was first nurtured in the remote Queensland mining town of Mt Isa in Kalkadoon Country in the state's far northwest.

HAVING SOMEONE WHO HAS A SIMILAR BACKGROUND AND UNDERSTANDS WHAT THEY'VE GONE THROUGH AND CAN RELATE TO THEM MAKES HEALTHCARE A LOT MORE APPROACHABLE

"I grew up in Mount Isa, which is a small outback town with quite a large Indigenous population. I'd always loved the idea of working in healthcare and helping people. I had the opportunity to be a volunteer ambulance officer; I'd jump on

a truck or be a driver for the paramedics if they were short-staffed and go out to jobs and help out with basic first aid. I realised that I absolutely loved it and wanted this to be my career."

She had enrolled in a Bachelor of Paramedic Science at Central Queensland University when the Officer in Charge at QAS Mt Isa told her about the IPP and asked if she would be interested in taking part.

"Of course I jumped at the chance because I'm doing the job I love and I also get to represent my culture and my people."

The IPP enables cadets to undertake a tailored academic pathway, focused on individual needs and goals, with several healthcare qualifications available from certificate-level courses through to a university degree. This flexibility of this approach enabled Tiarne to combine her studies with on-road learning as a QAS cadet.

"I'm a very hands-on learner, so university was always going to be a struggle for me. Getting to work on the road with mentors

and see that this was what I was learning was really important for me. If I didn't have the supported pathway and I wasn't on the road, I don't know if I would have finished my degree. It was the best way I could have ever done it."

The importance of representation in the profession is about more than visibility; holistically, it's about providing culturally sensitive, responsive and compassionate patient care for First Nations People and communities who have long languished behind the rest of the nation across all health indices.

"Our people are dying of things that are readily treatable; many don't even know they have health disorders. We're able to build that health literacy - they trust us and confide in us. We can really help close that gap.

"Our First Nations people don't necessarily feel comfortable talking to people who they feel don't represent them. Having someone who has a similar background and understands what they've gone through and can relate to them makes healthcare a lot more approachable and they feel a lot more comfortable in getting treatment.

"With some of the Indigenous patients I've worked with, when they see our badge with the Aboriginal and Torres Strait Islander flags, you instantly see them feel more comfortable knowing there will be respect for culture and that they can talk to someone and know they're not going to be judged."

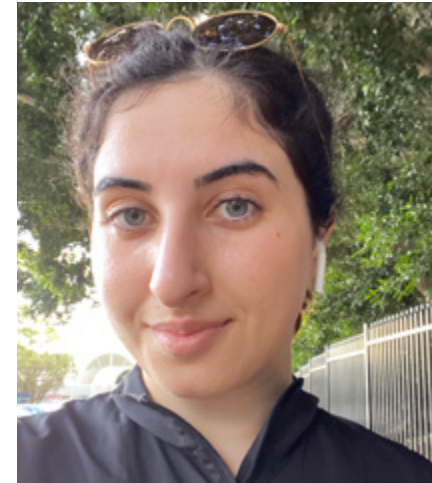
There are currently 48 cadets across 33 communities in Queensland. Tiarne, who is now based in Brisbane/Meeanjin, said in the future she would like to mentor other First Nations cadets coming through the program.

"I know how it feels when you start; you feel like you're in the deep end, asking yourself if you can do it. I want to be there for people and assure them that they can do it and that I'll help them do it."

A DIVERSIFIED PARAMEDIC PROFESSION: WHAT IT CAN DO FOR PATIENT-CENTRED CARE

By **Howra Al Timimy**

Paramedicine student, UTAS Sydney
Sydney, Wangal Country



When you don't see yourself reflected in a service, the prospect of being recognised begins to feel foreign. This disconnect begins to loom over the predisposed inaccessibility, and the unfamiliarity begins to sweep over the mental load of accessing such service. It is a communication barrier that begins well before "Why have you called an ambulance here today?" is asked.

As the paramedicine profession grows and develops, so too do our roles and our responsibilities. Our scope changes and our treatment becomes targeted to address the unique needs of special populations. Today we see our evidence of best practice striving to address healthcare disparities and bias, and has no doubt been expedited by voices within and through advocacy of lived experience.

GROWING UP IN AN ETHNICALLY AND CULTURALLY DIVERSE COMMUNITY, I HAVE INHERITED THE RESPONSIBILITY TO AMPLIFY THE VOICES

While structural and organisational efforts can solidify paradigm shifts through research and policy, representation within the community is often an unrecognised role. A paramedic represented within their migrant and/or non-English speaking community can build trust, provide education on ambulance systems, and render patient advocacy.

This could be with an elderly migrant who has never been able to interpret the words spoken by paramedics. This role we play can often be highly individualised to overcome unique barriers and understand lived experiences. What has become more apparent and common is the effect this representation can have on the trust placed in paramedics.

While the paramedic uniform is a universally recognised symbol of safety and trust, the perception can be skewed largely by associative historical trauma. It is common for our refugees and asylum-seekers to have been exposed to the upheavals of war, political persecution, and recurrent

mass-casualty events, with no doubt lasting emotional impacts. Our lights and sirens, uniformity, and perhaps even our codified radio communication, can invoke wariness, stress, and inescapable fear.

This fear may be compounded by previously negative experiences with emergency or health services. As healthcare professionals, we can understand the multifactorial origins of such mistrust and our responsibilities to alleviate the trauma through informed care and patient rapport, empathy, and empowerment.

While this is not a commonly prescribed skill, the lingering effects this has on patient outcomes is extraordinary. Those effects may not be directly seen on-road; however, it becomes a confirmation to the patient that they have

agency and autonomy over the decisions that affect them. While this is a core value of our system and bioethics, patients with language barriers may feel that they can't communicate their needs if the receiver doesn't understand them in the first place.

To facilitate trauma-informed care within the paramedicine profession, the nuances of education and training must be grounded in lived experience. Growing up in an ethnically and culturally diverse community, I have inherited the responsibility to amplify the voices within inaccessible spaces and ensure vulnerable members in our community are not forgotten. I have come to learn that this is a common experience we share.

We are currently seeing the paramedicine profession become more diverse and inclusive, with a growing number of second-generation immigrants becoming the first in their families to wear epaulettes. The effect this has on our communities is paramount. It becomes the confirmation of advocacy from within, a feeling of mutual connection and shared experiences. It empowers a foundation of education and health literacy that validates their fundamental right to safe access to healthcare. As such, it allows our families and friends to feel more trusting and less alienated by the strangers they have called during the worst moments of their lives.

I DON'T WORK FOR AN AMBULANCE SERVICE - AM I A "REAL PARAMEDIC" OR AM I JUST MOONLIGHTING?

Op-ed by **Julie Johnson**, College Education Manager
Kiama, Dharawal Country

Paramedicine is a global profession that is defined by the World Health Organization as "the provision of pre-hospital and out-of-hospital medical care to the sick and injured" (WHO, 2018).

Paramedics are highly skilled and qualified healthcare professionals who are equipped to provide advanced medical care in emergency situations. Why is it then that being a paramedic is so strongly connected to working for a jurisdictional ambulance service (JAS)? Am I still a paramedic if I don't work for an ambulance service?

If I was a nurse and told you I was working as a nurse at a sporting event or music festival, you wouldn't blink an eye. If I was a doctor and told you I was working for a mining company, again you wouldn't think twice. If I am a paramedic and I work at sporting events, festivals, corporate functions and even for those shows you see on TV, do you consider me a "real paramedic" or am I just moonlighting?

I had a conversation with a good friend of mine, Sean O'Loughlin, a Registered Paramedic and Australian Defence Force (ADF) veteran. Sean was a former Section Commander, 1st Battalion Royal Australian Regiment, who founded a medical support company and was the winner of the Prime Minister's Veteran Business of the Year in 2020. Sean specialises in combining former military and emergency service personnel to build the skills and capabilities of individuals and organisations in medical response. Sean and I talked about paramedics working outside JAS and for the ADF.

In Australia, paramedics can work in a variety of settings, including state and territory ambulance services, private ambulance services, mining, industrial, event medical, and hospitals. However, paramedics working outside of JAS are not seen as the "norm". Paramedics working in non-traditional settings must be adaptable and flexible in order to provide high-quality care. These paramedics may also be required to work with limited resources and in remote locations, highlighting the need for a broad range of skills and knowledge.

IT IS NO LONGER JUST PUTTING ON A BAND-AID AND RENDERING A BIT OF FIRST AID

The Cambridge Dictionary defines a paramedic as "a person who is trained to do medical work, especially in an emergency, but who is not a doctor or a nurse". So why is it that paramedics working outside of JAS are not seen as the "norm"? Is being a paramedic associated with those we work for or the role we perform?

I asked Sean a few questions.

What types of paramedics come to work in non-traditional settings, and what expectations do you have of them? His answers might surprise you.

"It is no longer just putting on a band-aid and rendering a bit of first aid. The private medical sector is a growing industry that provides valuable space for graduates and experienced paramedics alike to hone their skills and develop new ones," he said.

Sean said there was a critical need for graduates to gain experience and transition from university study to practice. In most states, a well-resourced and governed private medical organisation can help graduate paramedics consolidate their skills without the burden of emergency transport.

In NSW, transport of patients off-site is not permitted on government roads and is the role of the JAS, which can be limiting but also enables graduates to focus on their clinical and handover skills. In remote areas where many significant

high-risk sporting events occur, paramedics are caring for the injured and unwell for a prolonged period.

It's not just graduates who benefit from working at these events, seasoned paramedics, including specialist paramedics such as Intensive Care and Extended Care Paramedics, also reap the benefit of working in different environments.

As a paramedic, I had 10 years on-road experience before jumping into non-government work and one thing stood out to me - the fact that paramedics working in the event sector are truly 'first on scene'. You actually watch the event unfold. It adds a whole other layer to be able to handle the chaos of the environment. It's not a delayed response; even the most prompt ambulance attendance rarely gets to witness the actual mechanism.



PARAMEDICS WORKING OUTSIDE OF JAS ARE NOT RESTRICTED TO PRIVATE OR NON-GOVERNMENT EMPLOYERS

If we look at the other rewards of working in the private sector, we have to reference the work-life balance and longevity in the industry - the ability to take back some control while still contributing to the profession and staying connected to a part of our identity. Paramedics have much to offer, and as the burden of long days and nights in the service take their toll, taking some time to work with non-government organisations can sometimes reignite the passion and remind us why we chose to be a paramedic in the first place.

When we talk about non-government providers, there is often judgment passed as to the safety and clinical competence of those who are providing care. While that may still apply in some instances, the narrative around this is changing.

"We welcome regulation. We need a patient-first approach always," Sean said. The introduction of regulation in the industry is already a reality in Victoria, with commercial first-aid providers now licenced under the Non-Emergency Patient Transport and First Aid Services Act 2003.

First Aid Services Regulations took effect on 30 November 2021 and were the culmination of a review conducted by Safer Care Victoria on behalf of the Victorian Government. The Act and Regulations establish the requirement for commercial first-aid services to be licenced, and prescribe patient safety and quality standards.

A licence-holder must establish and maintain a clinical oversight committee. The committee's purpose is to ensure robust clinical governance exists to oversee, review, document and, where necessary, change clinical, patient and staff practices to address safety.¹

So while there is still much variation among the states and territories, the best advice Sean has is: "Research the industry, research the providers, and understand your contractual obligations and specifically your insurance (PII, PL)". Paramedics can help organisers understand the critical space of emergency care and work with them to shape response plans leading to improved outcomes for everyone.

Paramedics working outside of JAS are not restricted to private or

non-government employers. Paramedics can also work for the ADF. The ADF employs paramedics to provide medical care to its personnel in both peacetime and during deployments overseas. According to a study published in the Journal of Military and Veterans' Health, paramedics working with the ADF must be trained to provide a higher level of care than their civilian counterparts due to the unique challenges of providing medical care in military settings.² These challenges can include treating injuries sustained in combat, providing medical care in austere environments, and dealing with the psychological effects of trauma.

It's interesting to hear the passion in Sean's voice when he talks about how incredibly valuable it is for ADF members to have access to highly skilled paramedics, and equally how valuable it is for paramedics who experience working for the ADF in developing a broader understanding of remote medicine and functioning in hostile environments.

Sean said one of the main differences between civilian paramedics and ADF paramedics was that in a military environment the focus was on keeping colleagues and themselves alive, whereas in a civilian environment the focus was on patient-centred care. Unfortunately, we are seeing an increase in hostile and dangerous situations in the civilian space. This presents an interdisciplinary opportunity for learning and will undoubtedly add to paramedics' skills and understanding around safety and situational awareness.

Any registered paramedics can apply to become ADF reservists; however, they will need to pass the recruitment and selection process, and if successful can be deployed as paramedics as part of combat units. It is a unique experience in a unique environment.

Paramedics on deployment are exposed to situations that are not experienced in the civilian space. Paramedics working with the ADF must also be prepared to work as part of a larger healthcare team, which can include medical officers, nurses, and other healthcare professionals. According to an ADF report, paramedics are an essential part of the healthcare team and play a critical role in ensuring the health and well-being of ADF personnel.³

In addition to providing medical care to ADF personnel, paramedics working with the ADF may also be involved in training and mentoring other healthcare professionals, providing an opportunity to develop leadership skills and contribute to the ongoing education and training of other healthcare professionals.

A Delphi study led by Monash Professor Brett Williams attempted to develop a global consensus on the definition of paramedicine. They concluded that "paramedicine is a domain of practice and health profession that specialises across a range of settings including, but not limited to, emergency and primary

WORKING AS A PARAMEDIC CAN TAKE MANY FORMS AND CAN PRESENT UNIQUE CHALLENGES

Overall, working as a paramedic can take many forms and can present unique challenges depending on the setting in which the paramedic is operating. However, whether working in a JAS or in a non-traditional role, paramedics play a critical role in providing high-quality, pre-hospital and out-of-hospital medical care to the sick and injured.

care. Paramedics work in a variety of clinical settings such as emergency medical services, ambulance services, hospitals and clinics, as well as non-clinical roles, such as education, leadership, public health and research".⁴ So yes, those of us who don't work for a JAS are very much paramedics.

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UNDERESTIMATED AND UNDERUTILISED... THE PRIVATE PARAMEDIC SECTOR



By **Ekaterina (Kat) Puzanova**
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Contract paramedic Kasha Szewczyk working on an oil rig

If you were to ask most paramedicine students to describe the work of a paramedic, the answer would often be flashing red and blue lights, sirens, speeding through traffic, and saving lives. Also to add to the experience, geriatric falls, night shifts, ramping, and that overwhelming sensation of fatigue. To generalise like this in some ways is unfair, as no singular paramedic experience is like another's, but neither is the experience of a paramedic working in the private sector.

provides almost immediate professional clinical care when and where it is required.

Recently, an attendee of a major event in Brisbane went into cardiac arrest and within minutes, two private paramedics attended and provided resuscitation care prior to ambulance arrival⁴. Similarly, an incident occurred during an NRL game in which private paramedics provided emergency care to a player who had suffered a life-threatening laryngeal injury, which ultimately culminated in lifesaving

interventions being applied⁵.

In Australia, 82% of paramedics work in metropolitan settings,

regional centres or large rural towns, and typically in pairs¹. In contrast, private paramedics often work by themselves in a variety of challenging and unusual environments. Some notable private paramedic classifications that work independently and autonomously include: Industrial paramedics, rig medics, mine paramedics, maritime medics, film-set medics, offshore medics, and event paramedics⁶.

Each with a unique environment in which to work, the experience of a private paramedic is varied. Working solo means that paramedics must keep up to date with the literature and the skills relevant to their niche area, particularly when they are not able to access DTPs, CPGs and medical consults.

Private paramedics are often subjected to further training in their specialised fields in order to maintain a high focus on patient safety. A gap in paramedic student education identified by Williams et al.⁷ is interprofessional practice; the reason being that most universities take an isolative, uni-professional, ambulance-centric approach to their education. This results in paramedic graduates being less willing to engage in other roles or with other healthcare professionals in interprofessional learning. This can cause

THE PRIVATE PARAMEDIC SECTOR IS AN OPPORTUNITY OFTEN OVERLOOKED, UNKNOWN AND MISUNDERSTOOD

During our studentship, the vision that keeps many of us going is the idea that we would one day be standing by an ambulance in a crisp new paramedic uniform. But this one-dimensional fixation on the ambulance aspects of paramedicine shelters us from the opportunities that present to paramedic graduates.

The private paramedic sector is an opportunity often overlooked, unknown and misunderstood. Private sector paramedics currently make up 19.1% of all paramedics in Australia¹. Private sector paramedics are already utilised to fill gaps during increased demand for medical and health services and, in fact, between 2008 and 2015, the demand for paramedics rose by 29.2%².

As recently as 2022, when parts of Southeast Queensland and New South Wales experienced dramatic flooding, private sector paramedics were called in to provide additional support, wound care, tetanus shots, and health checks, and to provide general reassurance to the affected communities³.

Further to this, private paramedics are also often employed to supervise and cover major events. This mitigates ambulances being used for non-emergency reasons, and

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misunderstandings of systems and processes, and also underestimate the roles of paramedics and other health care professionals in these roles⁸. Since identification of this gap, universities have started to address it by adjusting the paramedic curriculum to include more interprofessional learnings⁹.

THERE ARE SO MANY OTHER OPPORTUNITIES AND OPTIONS WITHIN THE EXPANDING FIELD OF PRIVATE-SECTOR PARAMEDICINE

Paramedicine students often begin their paramedicine journey by dreaming of working within a jurisdictional-based paramedic service, but there are so many other opportunities and options within the expanding field of private-sector paramedicine to be considered.

These shouldn't be viewed as competing fields, but as ones that can work together for the broader benefit of society. Jurisdictional-based paramedics play an important role in emergency work, patient transport and increasingly in community and primary healthcare, while private sector paramedics can be there at events, attending to disaster relief or servicing industries where paramedics are required.

Reprinted from The Shift Extension

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THE EVOLUTION OF COMMUNITY PARAMEDICINE IN AUSTRALIA AND AOTEAROA NEW ZEALAND



By **Alecka Miles**

Chair of the College's Community Paramedicine Working Group
Perth, Whadjuk Nyoongar Country

Community paramedicine refers to a paramedic model of care that aims to ensure all people within a community have access to professional, person-centred healthcare.

Historically, the first "community paramedic" program in Australia could arguably date back to 1883 in Melbourne, when the first St John Ambulance Association branch formed in Bourke Street at the back of the Windsor Hotel¹. As a dedicated community-based organisation, they provided pre-hospital care and transported people on removed wooden doors.

Following years of fundraising, in 1887 there was an upgrade in transportation to six hand litters (human-powered, wheelless vehicles - think ancient Egyptian royalty¹. By 1895, New South Wales had recognised their first community ambulance program, the Civil Ambulance

and Transport Brigade, which had two permanent officers located in the police station in Railway Square, Sydney. They transported patients on a handheld stretcher or hand litter. In 1899, both the NSW and Victorian fleets were upgraded to horse-drawn ambulance operations^{1,2}.

The paramedic profession as we know it now has evolved significantly from ambulance drivers to the modern-day paramedic, and after decades of research, persistence, hard work and advocacy, December 2018 finally saw paramedicine become a registered health profession in Australia and in 2021 in Aotearoa New Zealand.

Paramedics are traditionally linked with a clinical environment that provides emergency care and necessitates transport to hospital. They are often seen as synonymous with ambulances and their associated organisations, and

are frequently referred to as "ambos" or "ambulance drivers"³. Due to a steady increase in sociocultural reliance on emergency ambulance services and the resultant overcrowding of emergency departments and delays in people receiving appropriate care, the paramedic profession has developed well beyond its initial boundaries of a transportation service^{4,5}. As a result, the community paramedic role has evolved to engage in unscheduled care for non-acute illness, minor injuries, chronic disease management, preventative health initiatives, immunisations, health promotion, injury prevention, and health screening^{5,6}.

The exact timeline of where and when the first modern-day community paramedics started working in Australia and Aotearoa New Zealand is difficult to attain from the literature. Anecdotally, many have been trialled in the past two decades, potentially as early as 2001; however, a lack of information about these trials or their outcomes makes it difficult to credit the first community paramedic pioneers.

In December 2007, NSW Ambulance began Extended Care Paramedicine (ECP) in the Sydney West-Nepean catchment area. The aim of the program was to treat people in the community rather than transport them to hospital⁷. December

2008 saw the South Australian Ambulance Service also introduce an ECP program to prevent hospital admissions in the metropolitan area. It was reported that they saw 1123 patients in the first seven months and provided 555 interventions (49.4%) that were considered to prevent ED presentations.

THE FUTURE FOR COMMUNITY PARAMEDICS LOOKS BRIGHT

Wellington Free Ambulance in Aotearoa New Zealand initiated an ECP care model in a rural district that was aimed at shifting the focus of the ambulance from necessitated transport to definitive care for the health of the patient⁸. Hato Hone St John soon joined the list of ambulance services implementing ECP programs in 2010 to provide healthcare within the community and reduce transports to hospital.

2013 saw St John Ambulance Western Australia undertake a feasibility study to determine if ECPs would assist in reducing ED demand and unnecessary transport in Perth, Western Australia; however, they were not introduced at that time⁹. In 2016, the Queensland Ambulance service launched Low-Acuity Response Unit (LARU) paramedic positions to respond to non-urgent cases involving patients who did not need to go to hospital¹⁰. Ambulance Victoria established the community-based role of Paramedic Community Support Coordinators in rural areas across the state in

2018, a role that was proposed to Rural Ambulance Victoria back in 2004 but did not come to fruition¹¹. Following the COVID-19 Pandemic, the Tasmanian Government funded Community Paramedics at Ambulance Tasmania in 2022 to reduce the demand on hospitals and the ambulance service – the first service to use an internationally recognised role title¹².

The development of the paramedic profession has led to the emergence of community paramedics working in clinical environments outside of jurisdictional ambulance services in Australia and Aotearoa New Zealand. Industrial paramedics who work in the mining, oil and gas sectors in Australia were some of the first spotlighted by Acker, et al., in 2014¹³. A project undertaken by members of the Community Paramedic Working Group at the Australasian College of Paramedicine in 2022 found that community paramedics were also working in Aboriginal Health Services, General Practice, Urgent Care Centres, remote emergency departments, palliative care, family healthcare centres, community health clinics, immunisation clinics and aged care

facilities in Australia and Aotearoa New Zealand.

With "Paramedic Practitioners" promised by the

Victorian Government in 2022, Urgent Care Centres promised by the Federal Government exploring the inclusion of paramedics in their workforce, and St John Ambulance Western Australia developing a pilot program for ECPs, the future for community paramedics looks bright.

Note from the author: The nomenclature of titles for paramedics working in roles that treat patients in the community without hospital attendance has been a source of confusion and debate for a long time. This article uses multiple titles as per the organisations that employ these paramedics. A consensus study was undertaken in 2022 with an international panel coming to 91% agreement on a definition of a community paramedic, thus this title may encompass all the above roles.

The definition: A Community Paramedic provides person-centred care in a diverse range of settings that address the needs of the community. Their practice may include

the provision of primary healthcare, health promotion, disease management, clinical assessment, and needs-based interventions. They should be integrated with interdisciplinary healthcare teams which aim to improve patient outcomes through education, advocacy, and health system navigation. The adoption of the global consensus on the definition of a community paramedic will enhance efforts to promote the value of this specialist role, enabling a better understanding of how a community paramedic contributes to the wider healthcare system¹⁴.

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The Australasian College of Paramedicine, founded in 1973 and celebrating its 50th anniversary, share a common DNA with the Council of Ambulance Authorities (CAA), with the ultimate goal of continuous improvement in patient care and positive outcomes.

THE CHALLENGES, THE SUCCESSES AND THE PROGRESS MADE

Council of Ambulance Authorities

Education Committee was created. A list of subjects to be taught was compiled and agreed to in 1981, leading to the beginning of standardisation and higher-quality training from 1982.

It is interesting to note that Victoria established itself as an accredited provider of a Technical and Further Education-certified course in Emergency Medical Care, meaning ambulance

complications that would arise from this change, Triple Zero was saved.

One further aspect of CAA's work involves a range of Working Groups and Committees, which form the backbone of sharing information, identifying initiatives and forming workplans to build on the goal of improved patient outcomes. CAA convenes many different such groups and committees covering a broad range of

BOTH THE COLLEGE AND THE CAA HAVE PLAYED AN IMPORTANT ROLE IN THE DEVELOPMENT AND ADVANCEMENT OF PARAMEDICINE IN AUSTRALIA SINCE THEIR INCEPTION

has a focus and range of initiatives, and there is a future scope of work that will include the role of the ambulance sector, demand management, the changing workforce landscape, and ambulance sustainability. More detail on each of these will be available shortly on our website, www.caa.net.au.

Despite CAA's many successes and achievements in the past 60 years, the organisation, and the pre-hospital and emergency ambulance sector, also face a number of challenges. One of the biggest has been the ongoing shortage of paramedics in many parts of Australasia. This shortage has been driven by a range of factors, including an aging population, increasing demand for ambulance services, and difficulty in



As well as some historical background, in this article we'll give Response readers a flavour of the role that CAA has had, and continues to play, in training and education, policy and advocacy, and service excellence, as well as acknowledging some of the challenges all ambulance services face in the coming years.

Like the College, CAA has seen many evolutions since its establishment in 1962. Originally founded under the name of the Australian Convention of State Ambulance Authorities; that body evolved to become the National Convention of State Ambulance Authorities (1966).

As it grew and evolved, it was renamed the Australian Ambulance Service Authorities Conference (1970) and then through several other iterations to where we are today, with "Australasian" very much a part of our name, reflecting the composition of CAA's membership, which is made up of all 11 statutory ambulance authorities in Australia, Aotearoa New Zealand and Papua New Guinea.

The original CAA convention in 1962 was convened to establish a forum for dis-

cussion among ambulance authorities, to share knowledge and best practice, to pose questions and seek common standards where possible. Since that first meeting, CAA has played a vital role in shaping paramedicine, healthcare, and training in Australia, with highlights, milestones, and challenges along the way.

It is important to remember that ambulances services today are vastly

CAA HAS SEEN MANY EVOLUTIONS SINCE ITS ESTABLISHMENT IN 1962

different from how they once operated. From the late 19th century to the mid-20th, services often functioned in a haphazard manner. Police, fire brigades, volunteers, various members of the medical profession and even undertakers all helped in the transportation of the sick and injured.

However, following Federation there was some positive change beginning to take place in Australia. States began to explore and identify the role that their services could play in essential health transport provision. Larger states introduced and passed legislation to

formally identify the role and obligations this would entail, and the next generation of pre-hospital healthcare began to take shape.

Despite all this, issues remained. All state services were poorly funded and the training of personnel and the equipment used were still of a minimum standard. There was also no way to provide ambulance service leaders with an opportunity to network, discuss issues, learnings and achievements that would move patient care forward. It was out of this need that CAA was formed.

It might be a surprise to learn that the concept of standardised training for the profession is a recent, and welcome, phenomenon. Before the 1950s, to be an Ambulance Officer was almost as straightforward as getting a driver's licence and a first aid certificate! Throughout the 1960s and 1970s, ambulance services started conducting in-house training; however, following the convening forum in 1971 for the Institute of Ambulance Officers (the forerunner of the College), and with encouragement from CAA, the National

officers could for the first time obtain a nationally recognised qualification. The progression from ambulance officer to paramedic has been an ever-evolving one, from first aid to certificate to diploma to undergraduate courses in 1992 - a world first between NSW Ambulance and Charles Sturt University

One of the most significant and far-reaching campaigns for which CAA took a leading position was the protection of the Triple Zero (000) number in Australia. Before Triple Zero became the norm, many regions had to look up local directories for emergency numbers. However, in the 1970s after much lobbying and given the advances in technology and the goodwill of Telecom (Telstra as it was then known), Triple Zero became Australia's universal emergency number.

The next fight was the protection of that universal number, with the then Federal Government started contemplating competition of the telecommunications sector, resulting in Telecom suggesting that the state government and emergency service agencies should fund and manage Triple Zero. Following successful campaigning by CAA and others highlighting both the risk to life and

topics and supported by subject matter experts, ranging from Mental Health and Wellbeing to Clinical and Patient Safety, an Aeromedical Forum, and even a Fleet and Equipment Forum.

One such working group is the Women in Leadership Working Group, which was established by CAA to advance leadership development and networking opportunities for female leaders and managers in the public ambulance sector across Australia, Aotearoa New Zealand and Papua New Guinea. The group's objectives include promoting employment of women in decision-making positions, setting up opportunities to provide mentors for the next generations of females in the ambulance sector, and collecting relevant data to support ongoing work. There is even CAA's inaugural Women in Leadership seminar, being held on 26 October in Melbourne, Australia.

Looking to the future, CAA has just released its 2023-2028 Strategy. The strategy, in keeping with our history and the requirements of our members services, has three key pillars: Advocacy, Knowledge and Information, and Learning and Development. Each pillar

attracting and retaining paramedics in regional and remote areas.

Another challenge for CAA has been the increasing complexity of ambulance services, driven by advances in medical technology and changing patterns of demand. There is a need to ensure that paramedics are continuously trained, skilled, and coached to meet the demands of a changing healthcare landscape, where the role of paramedics is becoming increasingly important.

In recent years, CAA has also been involved in efforts to improve the mental health and wellbeing of paramedics. The nature of their work means that paramedics are often exposed to traumatic events and high levels of stress. CAA has developed a number of initiatives aimed at supporting the mental health and wellbeing of paramedics, including the Me First strategy.

Through its advocacy work, research initiatives, partnerships and patient-focused strategies, CAA has helped to ensure that ambulance services across Australasia are providing the highest possible standards of care.



VICTORIAN AMBULANCE DEVELOPMENT THROUGHOUT THE DECADES

By **Peter Dent**

Former Paramedic Ambulance Victoria
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The 1960s and 1970s brought significant change to the Victorian Civil Ambulance Service (VCAS), more than 40 years on from its inception in 1915/16. This, of course, is taking in the 15 Victorian Regional Ambulance Services across the state.

The era of the "Ambulance Driver" effectively ended in 1961; the catalyst for this significant change being the establishment of the Ambulance Officers Training Centre (AOTC) at Geelong. This initiative was to be the beginning of the new breed of paramedic, bringing pre-hospital care into a new age. Prior to this advanced training regime, ambulance personnel were trained to the St John standard certificate of qualifications, and promotions were normally gained according to time served and/or "captain's calls", which at times included elements of nepotism.

After a short trial period at Geelong, the AOTC was relocated to "Mayfield", formerly a private boarding school, at East Malvern in metropolitan Melbourne. The centre remained there for a number of years, with subsequent locations being South Melbourne and Albert Park.

fession's practical on-the-job training. A new ambulance recruit immediately commenced front-line duty at HQ with senior personnel. This work experience was combined with a three-month training program, followed by an A/O Grade 2 assignment system culminating with a two-week or four-week residency course at the AOTC.

For a recruit, both the course and the Grade 2 AOTC course had to be successfully completed or the probationary officer's tenure would be terminated. After an officer obtained A/O Grade 2 status, there was no obligation for that person to proceed to higher qualifications, although most continued with their career development for patient-care interests and promotional reasons.

By the 1970s, ambulance personnel who were in service prior to the advent of the AOTC were given the opportunity to advance their ambulance nursing skills through AOTC. If not, they could take up patient transport role or alternatively retire.

The 1960s also saw the introduction of the Victorian fixed-wing Air Ambulance Service. This service was implemented in 1962 on a 12-month trial period with a new Aero Commander Shrike twin-engine aircraft. The trial period being a great success, the Air Ambulance Service began in earnest,

opening up emergency medical care to regional and remote areas of Victoria. The original fixed-wing Air Ambulance cases were covered by VCAS Air Flight Nurses, whereas crews of today are specially trained Mobile Intensive Care Ambulance (MICA) paramedics. A great benefactor of these early air ambulance services were large construction projects such as the Snowy Mountains Hydro Scheme.

Other breakthroughs of the 1960s included the humidity crib, an infant lifesaver in both road and air ambulances, along with the "air splint". Meanwhile, a degree of infection control



began, with ambulance officers provided gowns and masks and ambulances regularly fumigated. Strangely, however, I do not recall disposable gloves were ever issued in this period, even in cases of infectious disease.

WE SHOULD LOOK UPON ALL OUR AMBULANCE PREDECESSORS WITH GRATITUDE

Advancements in ambulance training and equipment came at a critical time as the 1960s and 1970s were known as the "deadly decades". During 1970 in Victoria alone, 20 people perished on state roads each week, a total of 1,067 for that year. The national road toll for the same year was 3,798 deaths. Simultaneously, the "cardiac epidemic" across the western world was also claiming lives at an alarming rate. As a result, if an ambulance crew was not attending a road fatality, these members would likely be at a cardiac case, often in VF and fatal. Medical science in this era had not connected smoking, obesity, blood pressure, cholesterol, and other factors to heart disease, hence this result.

In 1971, the appalling loss of life to cardiac disease prompted Royal Melbourne Hospital (RMH) cardiologist Dr Graeme Sloman, who had an intense interest in

pre-hospital care, to visit the MICA initiative. District Officers Wally Ross and Wally Byrne were selected for the trial at RMH and trained in the RMH coronary care unit. Under the supervision of either Dr Sloman or Dr Kitchen, these first two MICA paramedics attended cardiac cases with either doctor by direct request or at the request of ambulance crews. By 1972, this MICA crew was operating without doctor accompaniment, enabling the concept to be more expediently expanded. So began a national and world first, and another vital step forward in paramedical training, capability, equipment, and pre-hospital care.

There were many disparities between metro Melbourne and rural ambulance operations. For instance, rural ambulances were crewed "one up" with very little or no back-up, even though distances to hospital care were generally far greater than for city counterparts. MICA also was not introduced into rural ambulance services until around the mid-1990s, some 20 years after its establishment in metro operations, an extreme disadvantage for rural patients.

At 11:40 on October 15, 1970, Australia's worst industrial disaster occurred, the catastrophic "West Gate Bridge collapse", claiming 35 lives. Credibly, VCAS assumed the major medical evacuation role at this tragic disaster.

in 1970, the Regional Peninsular Ambulance Service began what is believed to

the lives of many trauma and medical patients, despite being restricted to operating only in the Peninsula area and on highways. The ambulance helicopter division soon expanded to services based in five localities and was crewed by highly trained MICA paramedics. This operation is today named the Helicopter Emergency Medical Service (HEMS) and all helicopter paramedics are trained in remote emergencies and line rescue in all conditions and situations 24/7.

The absence of women in ambulance until the late 1980s was not dictated by Victorian ambulance authorities. The Victorian Industrial Labour and Industry Act 1958 prohibited women lifting more than 16 kilograms. A review of the Act in 1987 heralded the long overdue entry of female paramedics into Victorian ambulance services, creating a new dimension within the profession.

Throughout the 1960s/70s, one could say that pain control was virtually nonexistent; notwithstanding morphine being carried by rural ambulance services from 1961 to 1964, for administration only by a medical practitioner. Trilene inhalant was introduced across the state in 1964, but its pain-control efficiency was questionable at best. This undesirable situation would begin to change with the development of MICA and the flow-on training to general paramedics.

1999 brought the closure of the AOTC and the introduction of tertiary-based paramedical qualifications, whereas prior to this, human resources were drawn from all walks of life. The tertiary system has mainly created a younger paramedic.

In conclusion, we should look upon all our ambulance predecessors with gratitude. These colleagues of past decades were the pioneers of today's excellent working conditions and our world-leading road and air ambulance services of the 21st century.

The badge motto of our former Victorian Civil Ambulance Service is truly synonymous with the magnificent develop-



be the first helicopter ambulance service in Australia, operating out of Tyabb near Western Port Bay. The helicopter was known as "The Angel of Mercy" and saved

ment and path forward of our proud profession: "Nulla Vestigia Retrorsum" - "We Never Turn Back".

SIGNIFICANT MOMENTS IN TIME: MARKING THE DEVELOPMENT OF ST JOHN NT

By **Jeannette Button**, St John NT Darwin/Garramilla, Larrakia Country

With 70 years' experience in the Northern Territory, St John NT understands the challenges in delivering services across vast distances, tropical and desert environments, as well as high levels of social disadvantage. It was the service's ability to respond to a number of significant events, however, that cemented St John NT's role as the ambulance service provider in the NT.

While several attempts had been made earlier to establish St John Ambulance divisions in the Northern Territory, it wasn't until 1953 that a volunteer first aid training and ambulance division was established.

By March 1962, the Darwin Division had a fully volunteer, free ambulance service in competition, and then later in cooperation, with the official Department of Health's hospital-based service. Initial conversations had been held regarding St John taking over the service from the hospital; however, it wasn't until Christmas Day 1974, in the aftermath of Cyclone Tracy, that St John became the service provider for the full Darwin ambulance service.

Recollections of the cyclone report that as dawn broke on that fateful Christmas morning, many inhabitants of Darwin emerged from the wreckage of their homes seeking assistance, and it was the men and women of St John who were among the first to provide first aid.

Over the following years, St John NT took over the ambulance services in the major regional centres as the Northern Territory achieved self-government in 1978.

Fast forward to 2002, and once again the capacity and willingness to help those in need was demonstrated through St John NT's response to the Bali bombing and the treatment of the injured casualties. Darwin played a significant role in providing a focal point in their evacuation to Australia before preparing the injured to fly on to other medical facilities. It was the largest aeromedical evacuation since the Vietnam War, with at least 66 Australians injured in the bombing flown to Darwin for treatment.

Today, paramedics in the Northern Territory are faced with a complex workload. Unlike other, more urban areas of Australia, paramedics in the Territory treat a largely younger, but chronically unwell population.

In many cases NT paramedics frequently find themselves caring for patients with diseases like rheumatoid heart disease, kidney disease, and



Bottom Left: Darwin Ambulance Centre early 1970s and Right Bali Bombing

chronic obstructive pulmonary disease - the type of chronic conditions that contribute to approximately 77% of the life expectancy gap between the Aboriginal and non-Aboriginal population, putting paramedics on the frontline of the nation's biggest health crisis.

New recruits to the service find that the NT offers them an opportunity to expand their clinical skills. The scope of practice can lay the foundations for an extraordinary career.

NT PARAMEDICS CARE FOR PATIENTS WITH THE TYPE OF CHRONIC CONDITIONS THAT CONTRIBUTE TO ABOUT 77% OF THE LIFE EXPECTANCY GAP BETWEEN THE ABORIGINAL AND NON-ABORIGINAL POPULATION, PUTTING THEM ON THE FRONTLINE OF THE NATION'S BIGGEST HEALTH CRISIS

With a population of approximately 250,000, the Territory's ambulance service now employs more than 300 paramedics, patient transport officers and emergency medical dispatchers. In the last financial year, the service answered more than 70,000 triple zero calls, transported almost 40,000 patients, and their fleet travelled more than 1.5 million kilometres.

As recently quoted in a recruitment drive, the St John NT ambulance service presents a once-in-a-life-time opportunity to develop one's practice in emergency medicine, sometimes in challenging and history-changing scenarios.

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FORTEM AUSTRALIA: PROVIDING WELLBEING AND MENTAL HEALTH CARE FOR PARAMEDICS FOR FOUR YEARS

By **James Maskey**, Sector Specialist, Fortem Australia

The work performed by paramedics is vitally important. It is also often confronting, traumatic, and dangerous. Quite often, the demands of being first on the scene for others can mean being last on the scene for self and family.

As a result of their indispensable role in the community, ambulance personnel experience higher rates of psychological distress, diagnosed mental health conditions and suicidal thinking than the general adult population and workers in other high-risk occupations.

AMBULANCE AGENCIES HAVE PLAYED A VITAL ROLE IN CREATING A SUPPORTIVE CULTURE THAT PRIORITISES MENTAL HEALTH AT WORK

Protecting the mental health of workers is an important part of managing any organisation, and all employers have legal responsibilities to provide a workplace that is mentally safe and healthy.

Although there are many challenges specific to the paramedic profession - such as issues pertaining to shift work and fatigue management, high workloads, strong cultural pressures and repeated exposure to death, trauma and violence - ambulance agencies are not exempt from the need to create and maintain a mentally healthy workplace.

Over many decades, significant advancements have been made in supporting the mental health and wellbeing of paramedics in Australia. As a result, there are now a range of services available internally within the workplace to help paramedics cope with the stress and trauma that they may experience as part of their occupation.

In the past 30 years, ambulance agencies have successfully run peer-support programs, assisting the psychological health and safety of paramedics through peer-led conversations. Within the past 10 years, the approach to peer-led support has evolved significantly, with many ambulance agencies now

leading from the front in terms of evidence-informed approaches.

In 2023, many peer-support programs are now underpinned by a set of guiding principles for the peer-support workforce. This ensures that effective and appropriate peer-support services are delivered consistently across the entire organisation. Several ambulance agencies have also invested significantly in ongoing training for peers, bolstering their capability in terms of awareness, support giving and postvention.

Another evolving focus of ambulance agencies is the design and implementation of sophisticated, evidence-informed strategy documents. Strategies typically outline an identified timeline and key strategic actions, with leaders held to account, to drive change and support mental health at work.

These strategies also broadly follow LaMontagne's landmark 2014 "Integrated Approach" model, which provides a framework for combining primary and secondary interventions that protect, promote and support the mental health of employees.

Many ambulance agencies create their strategy documents concurrently with extensive psychosocial risk reviews, demonstrating an honest and enduring commitment to addressing organisational wellbeing and psychosocial risk factors.

Importantly, leading-practice strategy documents are orientated towards outcomes rather than outputs, safeguarding that mental health and wellbeing is embedded into the thinking and business practices of ambulance agencies.

In recent years, all ambulance agencies have opted to provide a variety of in-house mental health and wellbeing programs and services. Particular services include employee assistance programs, peer support, clinical triage and chaplaincy.

For some paramedics, these services are effective and culturally appropriate, greatly improving the wellbeing of the ambulance workforce. This demonstrates the continued importance of ambulance agencies offering internal wellbeing supports.

Although there has been considerable investment



THE NEED TO CREATE A SAFE AND
SUPPORTIVE WORKPLACE FREE OF STIGMA
AND DISCRIMINATION NEVER STOPS

across several decades, further efforts are still required. From recent research journals and government inquiries, we know that ambulance personnel display sub-optimal help-seeking behaviour and experiences.

The entrenched stigma of mental health conditions is a known barrier to accessing timely and appropriate wellbeing supports. Paramedics are generally less likely to seek support if they hold stigma surrounding their own mental health or if they believe that their agency is not authentically committed to addressing mental health in the workplace.

To address this, ambulance agencies have embarked on significant stigma-reduction and mental health literacy campaigns. Many work tirelessly to drive cultural, cognitive and attitudinal shifts across the organisation, reinforcing the view that it's okay to not be okay, and that it's okay to seek support.

Many agencies take a zero tolerance approach to discrimination, enable meaningful participation and co-design with the lived experience community, provide mental health literacy training, develop leadership capability, and actively work to ensure that stigma reduction is a key component of mitigating against their organisational risk profile, strengthening a culture of wellbeing.

Over the past several years, ambulance agencies have played a vital role in creating a supportive culture that prioritises mental health at work, encouraging paramedics to seek support when needed. At the same time, there is still more work to be done, as tackling stigma in the workplace will require continued

efforts and an enduring commitment to change.

The need to create a safe and supportive workplace free of stigma and discrimination never stops. As such, ambulance agencies need to sustain efforts to normalise conversations on mental health and help-seeking in their organisation over the long term.

Another known barrier for many paramedics is that in-house services provided by agencies are perceived as insufficient by the workforce and that seeking internal support is believed to be a career-limiting or career-ending decision.

As such, paramedics may feel more comfortable confiding in and engaging with external support organisations. To ensure that individuals have a buffet of internal and external supports available, paramedics must feel empowered to access independent and community-based services. Fortem Australia is one such external support organisation.

Fortem Australia is a national not-for-profit organisation that supports the mental health and wellbeing of first responders and their families - the people who protect and care for Australian communities.

Since 2019, Fortem Australia has delivered free, evidence-informed wellbeing and mental health care that is independent yet adjunctive to workplace programs. The focus is on building resilience and early intervention. Fortem's services operate outside the workers' compensation system and offer a truly holistic approach to psychological wellbeing.

Fortem Australia runs wellbeing activities

designed to build both skills and social networks that stand first responders in good stead in times of increased stress. Fortem also provides evidence-based psychology support to first responders and their families and provides career management services for those looking to refresh their commitment to service or transition out of service.

We also recognise the need to undertake cutting-edge research, drive high-value policy reform and continually improve clinical and wellbeing interventions, ensuring that the best possible supports are provided to first responders and their families. This is an area of future focus for Fortem Australia.

Approaching four years of operation, Fortem Australia has supported more than 10,000 unique individuals, receiving more than 25,000 wellbeing activity registrations, nearly 2,000 career management referrals, and providing almost 4,000 psychology sessions to first responders and their families across the country.

Fortem Australia has built a scale that is unmatched by any other external provider and has a singular focus on the needs of the first responder community and most importantly, their families.

Fortem Australia warmly congratulates the Australasian College of Paramedicine on reaching its incredible 50-year milestone of representing paramedics and student paramedics across the region. We look forward to many more rewarding years of professional friendship.

We also celebrate the exceptional efforts undertaken by ambulance agencies across the country, and their increasing cooperation with external organisations to support the mental health of their personnel.

To find out more about Fortem Australia and the services provided, you can head to fortemaustralia.org.au.



50 YEARS OF RESEARCH IN PARAMEDICINE

Paramedicine has evolved over the past 50 years from a vocation with a technical focus to a health profession joining the other health professions under national regulatory frameworks in Australia and Aotearoa New Zealand.

Achievement of health profession status depends on evidence that the practice of paramedicine is based on the mastery of complex knowledge and skills that are used to provide healthcare to individuals and the broader community. Practitioners must be governed by codes of ethics and conduct and demonstrate a commitment to integrity, competence, and the promotion of public good. The specialised knowledge that informs practice must be relevant, contemporary, and derived, where possible, from high-quality research.

What did research look like 50 years ago?

A search for research that investigated aspects of ambulance services or paramedic practice published in 1973 reveals studies of the management of major trauma, and major incident and disaster planning. In Perth, there was interest in a newly developed Mobile Coronary Care Unit (MCCU) operated in conjunction with St John Western Australia. This service was introduced in 1969 and was based on the model introduced in Belfast by Pantridge and Geddes in 1966. The service in Perth was underutilised and so a survey of general practitioners was undertaken to understand barriers to use. The results were published in the Medical Journal of Australia, and revealed that the reasons for the low rate of use included concerns that the arrival of the MCCU would "frighten patients".¹ It should be noted that the only role of ambulance officers in this study was as drivers, with patient care provided by hospital registrars.

There is evidence of increasing interest in other aspects of ambulance service delivery over the next couple of decades. These included attempts to understand and justify treatments that were based on mechanistic principles rather than scientific evidence. An example involves the use of "rotating venous tourniquets" to treat cardiogen-

ic pulmonary oedema. The mechanistic view was that by restricting venous return and reducing preload, pulmonary congesting pressures could be reduced in patients with left ventricular failure. Despite the logical appeal of this intervention, an experimental study published in 1974 found that venous tourniquets failed to achieve significant decreases in pulmonary congesting pressure.² Translating evidence to practice appeared to be a challenge at the time as rotating tourniquets continued to be used by at least one Australian ambulance service for another two decades. It should be noted that no paramedics (or ambulance men as they were then referred to) took part in research published during these early years.

The first known evidence of paramedic involvement in a clinical experimental study in Australia involved the use of recombinant tissue-type plasminogen activator (rtPA) in the setting of myocardial ischaemia. This double-blind randomised trial saw eligible patients enrolled in a trial that was designed to examine the effect of rtPA on left ventricular ejection fraction 21 days after the intervention. Intensive Care

NO PARAMEDICS (OR AMBULANCE MEN AS THEY WERE THEN REFERRED TO) TOOK PART IN RESEARCH PUBLISHED DURING THESE EARLY YEARS

By **Bill Lord**

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Paramedics in selected areas of Sydney transmitted clinical findings and a 12-lead ECG to an on-call cardiologist who confirmed enrolment of patients in this trial. The results were published in the journal *Circulation* in 1988.³ One ambulance officer was listed as a contributor to this study, Kevin Graham, the then State Superintendent of NSW Ambulance Services. This study showed a significant improvement in outcome for the rtPA group compared with the placebo group. Despite this evidence, it would be more than two decades before thrombolysis was included in paramedic scope of practice in this region.

The next few years saw a slow increase in ambulance officer or paramedic involvement in research in Australia. One of the early paramedic researchers was the late Professor Ian Jacobs. Ian trained as a paramedic and nurse and

completed his PhD in 1994, which involved a study of the role of ambulance services in reducing mortality from ischaemic heart disease in Perth. Ian had an outstanding research career, and at the time of his premature death in 2014 was the Chair of the Australian Resuscitation Council and Co-Chair of the International Liaison Committee on Resuscitation (ILCOR).⁴

While other ambulance officers/paramedics began to appear as co-authors of research, they tended to be facilitators of research rather than being actively engaged in the design and implementation of research. This may be due to a relative lack of research

WHILE OTHER AMBULANCE OFFICERS/PARAMEDICS BEGAN TO APPEAR AS CO-AUTHORS OF RESEARCH, THEY TENDED TO BE FACILITATORS OF RESEARCH

training at the time, as the development of research skills was facilitated by the transition from technical to higher education, and through postgraduate opportunities to undertake research training. The first Australian research that was led by a paramedic appears to have been published by Professor Peter O'Meara in 1998.⁵

Like Australia, research into out-of-hospital care in Aotearoa New Zealand (Ao/NZ) over the past 30 years was primarily led by physician medical directors or in-hospital specialists. One of the first clinical trials firmly in the realm of pre-hospital care in Ao/NZ was the oxygen delivery in out-of-hospital cardiac arrest (Hot or Not) trial in 2014. This was led by physician Paul Young and included paramedic co-authorship from the teams facilitating the research in the pre-hospital environment.⁶

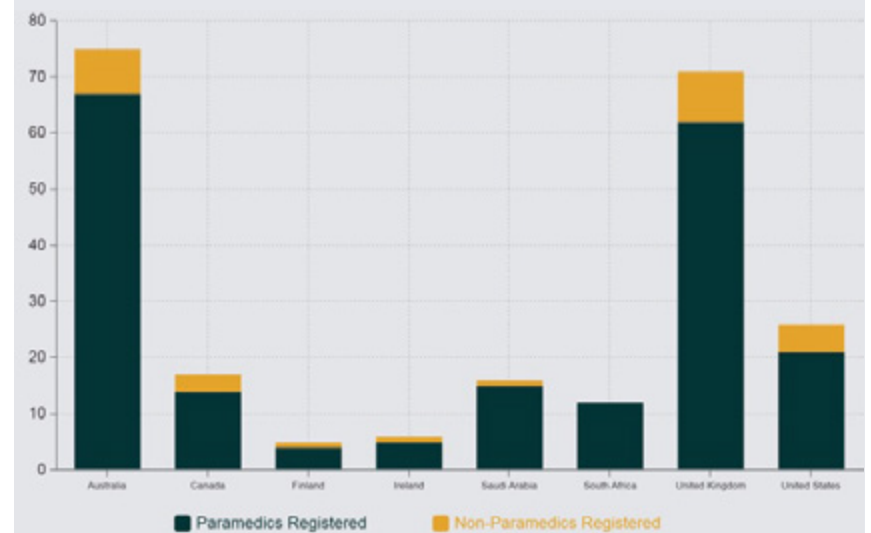
What's driving the increase in research?

Paramedic-led research has seen a remarkable increase over the past 20 years, with a recent analysis of paramedicine publications finding that the number of paramedic-related articles published per year more than doubled from 2010 to 2019.⁷ Much of this growth in research activity has been driven by a need to answer often complex questions in an increasingly complex practice environment and the expectation that practice is informed by good evidence.

This growth in paramedicine research



Figure 1: Doctorates by country (those with >4 entries)



Source: Paramedic PhD, <https://www.paramedicphd.com/resources/statistics>

has been facilitated by an increase in research capacity within the workforce, particularly the paramedic academic workforce. It should be noted that the transition to university education for paramedics and the establishment of career pathways for paramedic academics and researchers was one of the major factors that led to professional recognition. A profession must contribute to the development of discipline-specific knowledge, and as such research plays a vital role in ensuring that practice is underpinned by good evidence.

Information technology such as the advent of emergency medical service (EMS) electronic patient report forms (ePRF) between 2016 and 2018 has also been a significant enabler of paramedicine research in Ao/NZ. This meant that clinical trials were now able to be conducted as EMS treatments could be linked with patient outcomes, and the journey of a patient could be followed from call-pick-up in the emergency call centre through to the patient's in-hospital care. EMS ePRFs were critical for the implementation of the Oxygen in Acute Coronary Syndromes Clinical Trial (2019) and the PATCH trial (2021).^{8,9} Alongside ePRFs, having a lead researcher role embedded within EMS and having an appropriately qualified paramedic in

RESEARCH

that role has been an essential enabler of paramedicine research as this provides a critical point of contact to initiate research and form research collaborations.

The increase in research capacity within paramedicine can be seen by the number of paramedics who have completed or who are undertaking a doctoral-level qualification. This self-reported global registry shows that Australia has the highest number of registrants as of March 2023 (Figure 1).

From the year 2002, both ambulance education providers, the Auckland University of Technology and Whitireia Polytech, began to offer a degree qualification for the role of Paramedic in Ao/NZ. This meant potential for a new era of paramedic researchers. However, it was not until 2018 that Ao/NZ saw its first doctoral graduates from within the department of Paramedicine at the Auckland University of Technology. That year saw three doctoral graduates (Dr Brenda Costa-Scorse, Dr Bronwyn Tunnage and Dr Paul Davis), with one of the graduates concurrently working as a frontline paramedic throughout the duration of their study.

The difficulty in quantifying paramedic research and/or paramedic researchers is that most postgraduate qualifications in the field of paramedicine are quite recent. Earlier paramedics undertook doctoral studies in other potentially unrelated fields of science (e.g., engineering, laboratory science) then transitioned back to paramedicine as post-doctoral scientists. Despite having qualified in unrelated fields, these paramedics should be included as paramedic academics because of the foundational research knowledge they gained from doctoral study, such as the ability to synthesize and understand complex content, design investigations, project manage and apply advanced research methods. These are all research skills that are easily transferrable to paramedicine.

There are also non-paramedics who have completed doctoral studies in out-of-hospital care/paramedicine or whose roles are embedded within emergency medical services that make an important contribution to advancing the field of paramedicine research. One such Ao/NZ example is nursing senior lecturer Dr Natalie Anderson, who investigated resuscitation decision-making in out-of-hospital cardiac arrest.¹⁰

Research in the field of paramedicine led by non-paramedics with paramedic collaboration via interdisciplinary teams from nursing, epidemiology and public health cannot be discounted as non-paramedicine research. Such studies have been one of the cornerstones in advancing paramedicine research in Ao/NZ. As part of these teams, paramedics are not seen as merely the facilitators of the research but are equal partners and subject matter experts in paramedic care, adding value to the concept, design, and interpretation of research results.

There are many examples of excellence in paramedicine research, and this article cannot do justice to all those who have contributed to the advancement of paramedicine knowledge and practice in this region. However, a few recent examples of paramedic-led publications are included to illustrate the breadth of research:

- Factors influencing the lived experience of paramedics facing ethical dilemmas: A case comparison. Kirsty Shearer and colleagues, 2023
- Health initiatives to reduce the potentially preventable

- hospitalisation of older people in rural and regional Australia. Tegwyn McManamny and colleagues, 2022
- Use of point-of-care ultrasound by Intensive Care Paramedics to assess respiratory distress in the out-of-hospital environment. Jake Donovan and colleagues, 2022
- Cardiometabolic, Dietary and Physical Health in Graduate Paramedics during the First 12-Months of Practice - A Longitudinal Study. Ben Meadley and colleagues, 2022
- Long-term functional and quality-of-life outcomes of cardiac arrest survivors stratified by shock provider: A 10 Year Retrospective Study. Brian Haskins and colleagues, 2021
- Paramedic students' experiences of stress whilst undertaking ambulance placements - An integrative review. Matthew Warren-James and colleagues, 2021
- Endotracheal tube intracuff pressure changes in patients transported by a Helicopter Emergency Medical Service: A prospective observational study. Ash Delorenzo and colleagues, 2021
- The impact of a high-performance cardiopulmonary resuscitation protocol on survival from out-of-hospital cardiac arrests witnessed by paramedics. Ziad Nehme, 2021
- Ambulance dispatch of older patients following primary and secondary telephone triage in metropolitan Melbourne, Australia: A retrospective cohort study. Kathryn

PARAMEDIC-LED RESEARCH HAS SEEN A REMARKABLE INCREASE OVER THE PAST 20 YEARS

- Eastwood and colleagues, 2020
- What is the prevalence of frequent attendance to emergency departments and what is the impact on emergency department utilisation? A systematic review and meta-analysis. Brendan Shannon and colleagues, 2020
- Women's experience of unplanned out-of-hospital birth in paramedic care. Belinda Flanagan and colleagues, 2019.
- Indicators to measure prehospital care quality: A scoping review. Robin Pap and colleagues, 2018
- 'Popping nana back into bed'- A qualitative exploration of paramedic decision making when caring for older people who have fallen. Paul Simpson and colleagues, 2017
- Paramedic-delivered fibrinolysis in the treatment of ST-elevation myocardial infarction: Comparison of a physician-authorized versus autonomous paramedic approach. Paul Davis and colleagues, 2018

Vision for the future

The Australasian College of Paramedicine has made support for research a strategic priority, and is committed to supporting the promotion, dissemination, and effective translation of research into practice. A research mentoring program has been established to provide members who are interested in research or those who are early-career researchers with opportunities to gain experience about research through partnering with an experienced

HAVING THE OPPORTUNITY TO MAINTAIN A CLINICAL ROLE ALONGSIDE AN ACADEMIC ROLE WOULD ENABLE PARAMEDICS TO PURSUE BOTH CAREERS SIMULTANEOUSLY

researcher who acts as a mentor. This program does not aim to be a substitute for teaching about research methods; rather, it aims to “promote engagement with research, create peer research networks, and encourage transition into formal research pathways such as higher degree by research (HDR) programs.”¹¹

A study published in 2021 found that “paramedicine articles have a high citation count and are published across numerous journals, but with a relative lack of contribution from paramedic practitioners and female researchers”.¹² Furthermore, this study found that the research has had a narrow focus, with the top 15 papers by citation count predominantly covering cardiac arrest, stroke, and sepsis. While these are key areas of practice to focus improvements, there are other aspects of patient care that have unmet research needs.

To determine key national research needs, the Ao/NZ government has established a Health Research Prioritisation Framework (2017 – 2027) and a Health Research Strategy.^{13,14} Two of the key priorities within these frameworks are Mana Tāngata: The importance and value of mātauranga Māori, where mana tāngata refers to human rights, and mātauranga to education; and Equity: Health inequity is one of the biggest issues that New Zealand is currently facing. Both areas are essential and are significantly under-researched in the field of paramedicine.

Equity research is pertinent to both Australia and Ao/NZ, with potential inequities of healthcare delivery and outcomes by gender, ethnicity, rurality and socioeconomic deprivation, among others. These important areas of research equally highlight the need for a diverse research workforce that is representative of the populations that are being researched. Researchers need to be open and responsive to the research aspirations and priorities of their participant communities and not just impose traditional agendas. This means involving community members in research design where possible and ensuring that the patient experience of paramedic-administered care is included as a research priority.

- In addition to mentorship through ACP there are several enablers that could assist to enhance and future-proof paramedicine research:
- Engagement of new paramedic researchers in academic collaborations with research networks such as AUS-ROC and Manawataki Fatu Fatu can provide safe and supportive learning environments as well as peer support from others in academia.
 - Funded research roles within EMS and healthcare providers. Currently, research roles within paramedicine/healthcare in general are funded through contestable research grant funding and are not considered part of service delivery.
 - Stepped career progression and industry recognition of paramedic researcher qualifications, for example there are stepped clinical qualifications such as emergency medical technician, paramedic, critical care paramedic. However, there is no similar stepwise recognition of research qualifications within industry, for example research associate, researcher, senior researcher.
 - Availability of part-time academic clinical roles, for example 0.5 FTE frontline and 0.5 FTE research/academia. In general, there appears to be a dichotomous choice for paramedics to either progress clinically or academically, with most choosing the former. Having the opportunity to maintain a clinical role alongside an academic role would enable paramedics to pursue both careers simultaneously.

One of the strategic aims of the College in relation to research involves the recent launch of a new journal, Paramedicine. This international, open-access, peer-reviewed journal “aims to advance and transform the discipline of paramedicine through high-quality evidence. It inspires robust discussion, encourages innovative thinking, informs leadership, and enables research translation.”¹⁵ This last point is a critically important point as the aim is to ensure that good evidence derived from high-quality research is able to inform and transform practice.

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WAYS TO LOSE YOUR JOB...

PART 3



By **Michael Eburn**

This article concludes a series of articles on how paramedics' conduct has cost them their job. In an article – Ways to Lose Your Job... Part 1 - published in the Winter 2022 edition of Response, I discussed how challenging COVID vaccination mandates had cost some paramedics their jobs. In Ways to Lose Your Job ... Part 2 - published in Spring 2022, I looked at unfair dismissal cases to determine other cases where paramedics had been dismissed to identify the sort of conduct that can cost you your job.

In this article, I return to the COVID vaccinations to "close the loop". In that first article, I said "Thiab v Western Sydney University [2022] NSWSC 760 may be a case that goes against the trend of cases discussed above." In that case, Ms Thiab had won a claim that the University of Western Sydney had stopped her completing her studies because of her political beliefs. On appeal, the University was successful in setting aside those orders (Western Sydney University v Thiab [2023] NSWCA 57). This article explains the Court's reasoning and discusses how this decision about a nursing student is relevant for paramedics.

Thiab v Western Sydney University

Ms Thiab, a nursing student, was sent home from her nursing placements due to either her asking questions about the COVID vaccines or for expressing anti-vaccination views. I say "either" because it does depend on how her actions were interpreted.

Justice Parker, at first instance, held that the University of Western Sydney took the view that Mr Thiab held anti-vaccination views and therefore could not complete her nursing placements (and ultimately her degree), but that they did so without considering whether she had spread any misinformation to patients. He said (at [127]):



"... it was not Ms Thiab's actual conduct which concerned [the decision-makers]. Rather, they thought that she held anti-vaxxer beliefs and that those beliefs were undesirable in nursing practice. Once they had reached these conclusions, they apparently considered it unnecessary to investigate precisely what she had said and done."

The Act governing the University of Western Sydney (the University of Western Sydney Act 1988 (NSW)) provides that:

A person must not, because of his or her religious or political affiliations, views or beliefs, be denied admission as a student of the University or progression within the University or be ineligible to hold office in, to graduate from or to enjoy any benefit, advantage or privilege of the University.

Relevantly for people outside the university sector, there is an implied freedom of political communication. This freedom is implied by the establishment in the Australian Constitution of a system of representative democracy, and that system can only work if people are free to engage in political discussion (Australian Capital Television v Commonwealth (1992) 177 CLR 106). It is not, however, an individual freedom; rather, it is a limit on legislative power so an Act of Parliament that unnecessarily restricts the ability of people to take part in political debate will be unconstitutional (Larter v Paramedicine Council of NSW [2023] NSWCATOD 12, [66]).

Western Sydney University v Thiab

On appeal, the University argued that their decision to exclude Ms Thiab from practical placements was not because of her political beliefs but because her conduct contravened the Nursing and Midwifery Board's Code of Conduct and the position statement on vaccination.

Critically, the Court of Appeal looked at extensive legislation where freedom of political thoughts or expression is guaranteed and said that what was protected had to be interpreted in the context of each particular Act and what it was established for. Importantly, the Court held that the University of Western Sydney Act was not a guarantee of free speech, nor did it provide that any "moral" or "ethical" belief counted as political for the purposes of the Act. At paragraphs 128-129, the Court (Bell CJ, Meagher JA and Leeming JA) said:

An analysis of this material leads us to be comfortably satisfied that, to the extent that Ms Thiab held negative views about vaccination for COVID-19, those views did not arise from any belief that could be described as "political", even taking a broad view of that concept. Rather, her belief or views were born of concerns, no doubt genuinely held by her, about the efficacy of treatment and reports of negative health consequences including myocarditis.

Nowhere in this email does one see any assertion that a requirement to be vaccinated represented an invasion of personal or bodily autonomy, or even a complaint about particular actions of the government (cf the various libertarian objections to government health measures considered by this Court in Kassam v Hazzard (2021) 106 NSWLR 520; [2021] NSWCA 299).

That Ms Thiab was critical of then Premier Gladys Berejiklian and Chief Medical Officer Kerry Chant did not make her views "political". She was critical of the claims made about the effectiveness of the vaccine, not issues such as the role of government in the pandemic.

"In this context," the Court said (at [131]), "it may be observed that not every statement made by a politician constitutes a political view or belief. Still less does every statement made by a public servant in the presence of a politician necessarily amount to the expression of a political view or belief by that public servant."

The Court held that Parker J erred in finding that the decision to cancel Ms Thiab's placement was due to her beliefs. Rather, the evidence was that the decision-makers took the view that "the expression of those views in a clinical setting was anathema to what was required of a nurse in the public health system" ([146]). It is not for the courts to substitute their analysis for that of an authorised decision-maker if the decision made was open on the evidence; even if the particular judge may have made a different decision. The issue for the court is did the decision-maker act according to law, not could they reasonably have made a different decision.

The Court of Appeal upheld the appeal, dismissing the finding that the actions of the University were contrary to the Act.

Discussion

This case is of interest (if not of direct application) to paramedics because of what it says about political communication in the context of the COVID vaccinations. It has been noted that a number of health professionals have resisted mandatory vaccinations and have lost their jobs. Since first writing the article Ways to Lose Your Job ...

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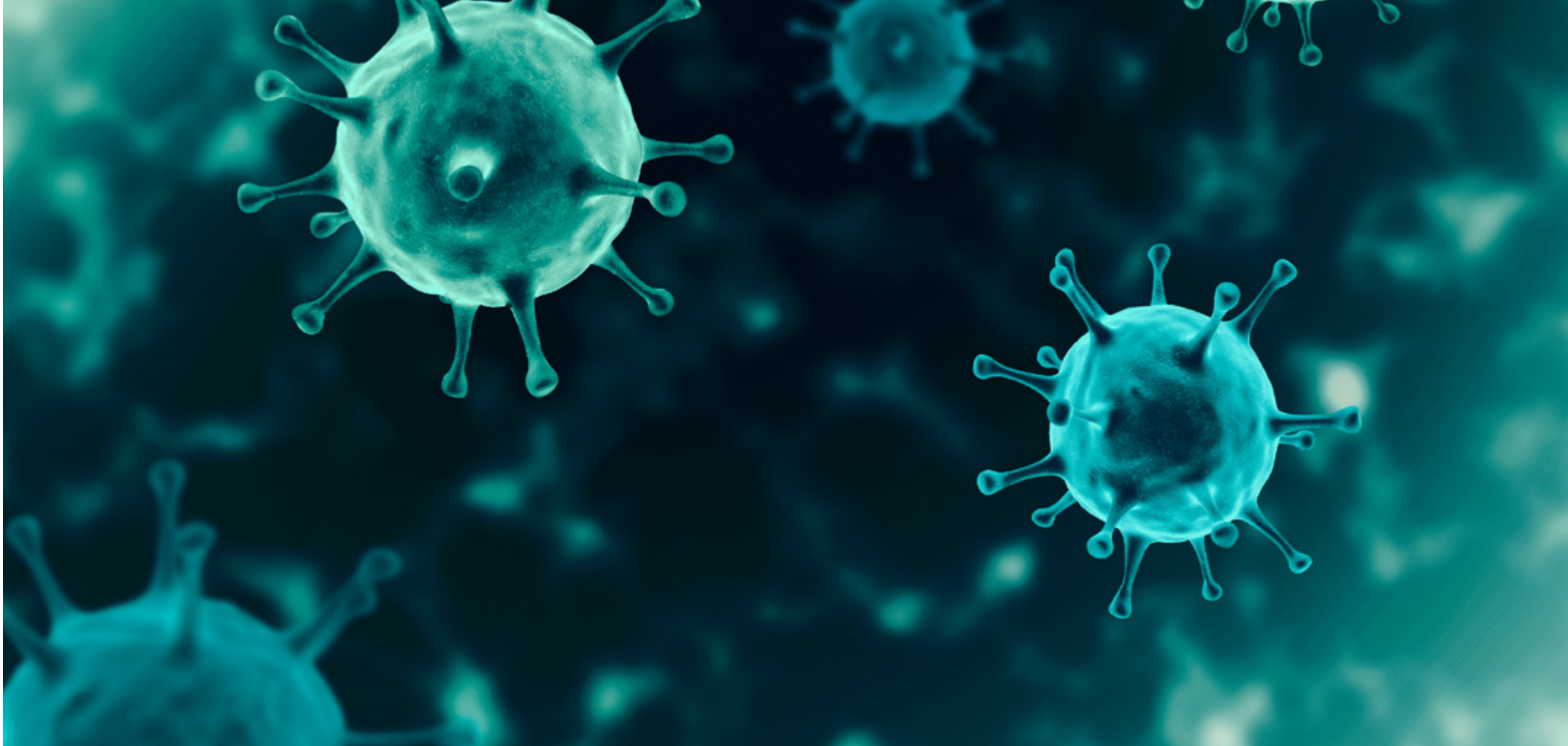
Part 1, further cases have been reported where paramedics have argued, and lost, that they had been unfairly dismissed for refusing to be vaccinated (see *Elsworthy v State of Queensland (Queensland Ambulance Service)* [2022] QIRC 412 (28 October 2022); *Stys v State of Queensland (Queensland Ambulance Service)* [2022] QIRC 415 (28 October 2022); *Shield v State of Queensland (Queensland Ambulance Service)* [2022] QIRC 439 (14 November 2022); and *Jones v State of Queensland (Queensland Ambulance Service)* [2023] QIRC 022 (24 January 2023)).

Arguing with the science behind a decision is not, according to the Court of Appeal, a political debate. In any contentious decision there will be different views. In the case of COVID vaccinations, the governments of Australia were advised by expert bodies. Other people who may also have qualified as experts had different views. The fact that there are different views does not mean the government could not choose to follow the advice of its preferred experts. If you want to challenge a government decision in court, pointing out that there are contrary views and that you prefer, or think the government should prefer, alternatives, does not mean that the government's decision was unlawful. A court will not try to resolve the competing views and tell the government (or in this case the University administrator) what decision they should have made. The question for a court is whether there was material to justify the decision, and therefore whether it was a decision the decision-maker "could" have made in compliance with the relevant legislation.

There is another important lesson in this case. The Court of Appeal gave more details of the email correspondence between Ms Thiab and the University. In particular, at [31], the court quotes from an email where Ms Thiab wrote:

So, I write with regard to the matter of potential COVID 19 vaccine and my desire to be fully informed and appraised of all facts before going ahead. I would be most grateful if you could please provide the following information in accordance with statutory legal requirements.

1. Can you please advise the approved legal status of any vaccine for the current Delta variant, and, if it is experimental?
2. Can you please provide details and insurances that the vaccine has been fully, independently and rigorously test against control groups and the subsequent outcomes of those tests?
3. Can you please advise the entire list of contents of the vaccine I am to receive, and if any are toxic to the body?
4. Can you please fully advise of all the adverse reactions associated with this vaccine since its introduction?
5. Can you please advise of the safety and efficacy of the vaccine in pregnant women, and the effects of the vaccine in breastfed infants?
6. Please advise of the effects of the vaccine on fertility?
7. Can you please confirm that the vaccine you are advocating is NOT "experimental mRNA gene-altering therapy"?
8. Can you please confirm that I will not be under any duress from yourself as my school of education, in compliance with the Nuremberg Code?



9. Can you please advise me of the likely risks of fatality should I be unfortunate to contract COVID-19 and the likelihood of recovery?

Once I have received the above information in full, and I am satisfied that there is NO threat to my health, I will be happy to accept your offer to receive the treatment but with certain conditions – namely that:

1. You confirm in writing that I will suffer no harm.
2. Following acceptance of this, the offer must be signed by a fully qualified Doctor who will take full legal and financial responsibility for any injuries occurring to myself, and/or from any interactions by authorised personnel regarding these procedures.
3. In the event that I should have to decline the offer of vaccination, please confirm that it will not compromise my opportunity to graduate.

I would also advise that my inalienable rights are reserved. (Bold in original, other emphasis added.)

The Court does not discuss the source of that email, but it reads like it has been taken from template letters that are circulating on the internet (see for example <https://rense.com/general96/advice-on-rights.php> and note that neither I nor the College endorse the contents of this website or the material on it). In *Christine Inwood v Baxter and Co. Pty. Ltd* [2022] FWC 792 (quoted in *Lamarre-Condon v Commissioner of Police, NSW Police Force* [2023] NSWIRComm 1021, [142]), the applicant had written to her employer in similar and in some cases identical terms. In that case, Deputy President Eastman observed that these types of letters "have appeared in many unfair dismissal applications lodged in the [Fair Work] Commission" and

that "many unvaccinated ex-employees have relied upon these letters to their demise".

Ms Thiab relied on a similar letter and also to her demise. The letter showed that it was the science, and not her "political" views that were in issue: "The nature of Ms Thiab's opposition to vaccination was medical and scientific and not political" (headnote, [5]).

Conclusion

The regulatory environment around COVID vaccinations is changing, but it is still the case that healthcare workers are required to be vaccinated and it is still the case that some workers object to that requirement. They are free to do so; vaccinations are not compulsory in the sense that no one is held down and injected against their will. But they are mandatory for health workers, so a decision to refuse a vaccine has costs and that is often seen as a loss of employment or, in Ms Thiab's case, the loss of chance to continue her studies.

In *Ways to Lose Your Job ...* Part 1 I reported on some unsatisfactory decisions (involving NSW paramedics John Larter and Sally-Anne John) and the initial decision involving Ms Thiab. I said that perhaps the outcome in Ms Thiab's case was that it may have gone against the trend. The Court of Appeal has confirmed that is not the case.

The lesson for paramedics is that just because an issue involves government, it does not mean any objection is protected political communication. And don't rely on internet templates for your legal advice.

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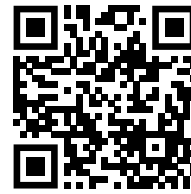


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