



2021-22

Safety & Quality Account



NSW Ambulance





NSW Ambulance

NSW Ambulance
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November 2022

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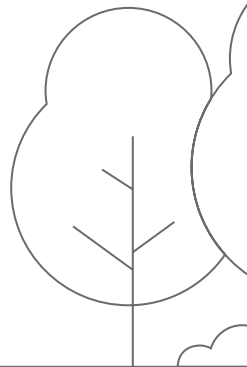
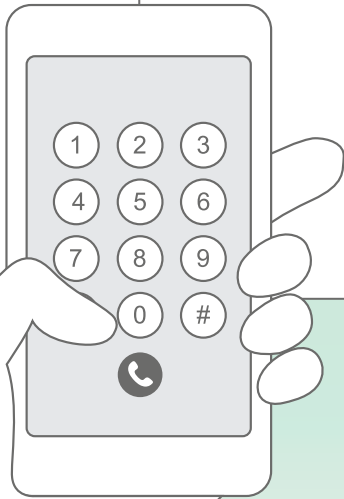


2021-22 Snapshot

1,201,210

Triple Zero (000) calls received

A Triple Zero (000) call every
25.34 seconds



1,020,165

Incidents generated

503,320

Emergency (Priority 1) Incidents

1,295,481

Ambulance responses

10,995

Aeromedical responses by
helicopter, fixed wing and
road retrieval

4,712

Number of responses attended
by Clinical Volunteers



A response to an
incident every

24.34

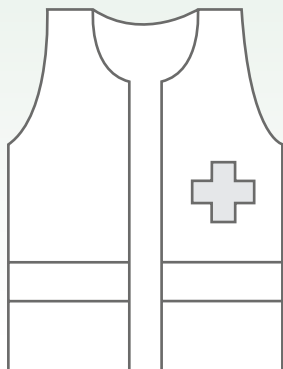
seconds

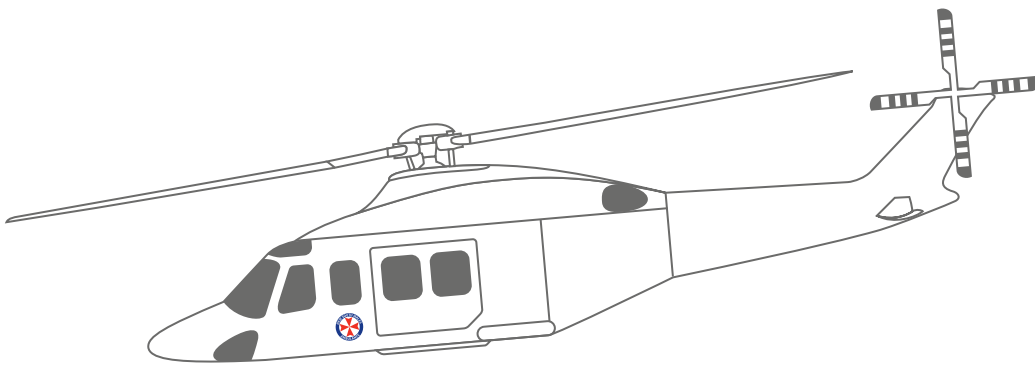
8.85 minutes

Priority 1A median
response time

15.1 minutes

Priority 1 median
response time





Aeromedical Operations

41

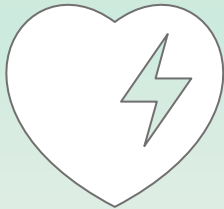
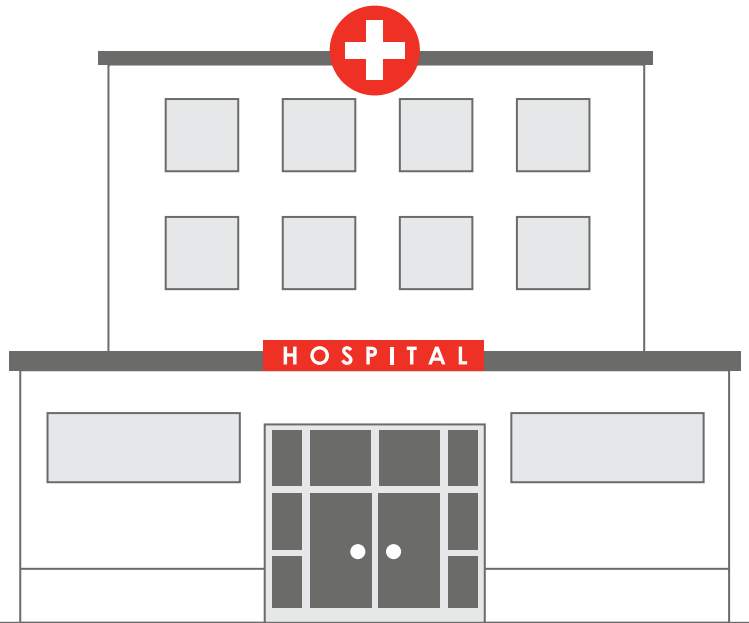
Out of hospital blood transfusion cases completed

92.2%

Rapid Sequence Intubation cases without complication

97%

First-look laryngoscopy success rate



726

Paramedic witnessed cardiac arrests

10,003

Total cardiac arrests

490

Clinical Review Group reviewed cases, including 319 witnessed cardiac arrests

1,743

Palliative care patients who were not transported to hospital (39%)



8,154

Major trauma cases attended

5,560

P2 incidents in Residential Aged Care Facilities were referred to My Emergency Doctor (MED) with 70% not requiring ambulance response



83%

Extended Care Paramedic referrals to MED as an alternate referral destination that achieved treatment in situ

194

Call takers and Dispatch operators trained



Statement on Safety & Quality



**Adjunct Professor
Dominic Morgan ASM**

Chief Executive,
NSW Ambulance

Chief Executive

The challenges to health services in NSW caused by the COVID-19 pandemic through 2021-22 are well-documented and fresh in the memory for all those who have lived and worked through them.

From the lockdowns of August to October 2021, through to the influenza season of 2022, the pressures on NSW Ambulance clinicians delivering out-of-hospital care were unrelenting. In the April to June quarter of 2022, NSW Ambulance had 333,927 responses, with 12,134 triaged as immediately life-threatening medical emergencies (Priority 1A) - a record high.

This very high demand for paramedics was driven largely by the Omicron wave of COVID-19, the peak of the influenza season and the return of the normal paramedic workload, with an increase in car accidents, assaults, falls and other activity related call outs.

As I write this Statement, the COVID-19 Incident Management Team (IMT) has finally been stood down after 929 days of operation - the longest sustained response campaign in NSW Ambulance history. The ongoing management of COVID-19 risk adheres strictly to Clinical Excellence Commission guidance through mask-wearing mandates, physical distancing requirements, and vaccination protocols for clinical, non-clinical staff and students.

On top of the pandemic response of 2021-22, severe weather events like the North Coast floods added further layers of difficulty. When natural disasters struck, we had to find ways to maintain delivery of health services to communities who were initially isolated, then faced lengthy phases of disaster recovery.

Throughout these ongoing and significant challenges, NSW Ambulance clinicians and support staff continued to keep safety and quality as our key priority, developing safe, high quality systems to meet the increased demand.

Several initiatives stand out.

In September 2021, NSW Ambulance fast tracked the implementation of a COVID Virtual Clinical Care Centre (VCCC). The VCCC is designed to reduce

clinical risk for lower acuity calls, and is at the forefront of our priority area of work on Care Pathways.

The COVID VCCC has transitioned to NSW Ambulance VCCC in line with the announcement of June 2022 that the NSW Government would invest \$1.76 billion in NSW Ambulance over four years.

NSW Ambulance Education has also trained and onboarded more emergency medical call takers, dispatchers and paramedics than ever before, through workforce surges rolled out in response to the ongoing demand. The quantum of this increase was five times the usual intake of paramedics, and around a 40% higher intake of emergency medical call takers.

Despite the demands of these and other programs, NSW Ambulance has steadfastly maintained our forward focus on key areas of safety and quality of care.

We have continued initiatives to develop staff capability, and enhance staff safety and wellness.

Significant work has been done to upgrade Intensive Care Paramedic skills and equipment to ensure the highest level of care is available to those who need it, particularly in regional areas.

We have introduced new robust processes, through the newly formed Clinical Practice Committee (CPC) [formerly Clinical Advisory Committee] to review current clinical practices and introduce new skills and procedures in collaboration with NSW Health partners and clinicians.

Technological improvements like the InformCAD upgrade will better inform dispatch decision making.

Our new strategic plan keeps our high focus on the delivery of safe, highly effective, health services at the forefront of organisational priorities, and will help drive new safety and quality initiatives in the years ahead.

I am incredibly proud of the way NSW Ambulance has upheld clinical quality and staff safety through these unprecedented times. The resilience and purpose shown by clinicians and support staff

makes me confident that the quality of care we provide to patients will continue to strengthen.

Looking ahead to future challenges, the need to place Aboriginal people at the centre of service delivery remains a priority that we are actively engaged in. We also look forward to increasing our focus on consumer engagement, through

strategy development work that will include all levels of clinical care, service design and development.

Through these initiatives and others outlined in this document, we will continue to improve our ability to provide the right care at the right time to the people of NSW.

Attestation Statement

NSW Ambulance has established frameworks, systems and processes for consistent measurement and reporting including details of patient safety and the quality of care provided to our patients. This is reflected in the governance attestation statement released annually.

Corporate Governance Attestation Statement

NSW AMBULANCE

1 July 2021 to 30 June 2022



STANDARD 2: ENSURING CLINICAL RESPONSIBILITIES ARE CLEARLY ALLOCATED AND UNDERSTOOD

The Chief Executive has in place frameworks and systems for measuring and routinely reporting on Clinical Governance and the safety and quality of care provided to the communities NSW Ambulance serves. These systems and activities reflect the principles, performance and reporting guidelines as detailed in NSW Health Policy Directive '*Patient Safety and Clinical Quality Program*' (PD2005_608).

NSW Ambulance has:

- Clear lines of accountability for clinical care which are regularly communicated to clinical staff and to staff who provide direct support to them.
- Effective forums in place to facilitate the involvement of clinicians and other health staff in decision making at all levels of NSW Ambulance.
- A systematic process for the identification and management of clinical incidents and minimisation of risks to NSW Ambulance.
- An effective complaint management system for NSW Ambulance and complaint information is used to improve patient care.
- Licensing and registration requirements which are checked and maintained.

The Chief Executive has mechanisms in place to ensure that the relevant registration authority is informed where there are reasonable grounds to suspect professional misconduct or unsatisfactory professional conduct by any registered health professional employed or contracted by NSW Ambulance.



Clinical Practice Committee (CPC)

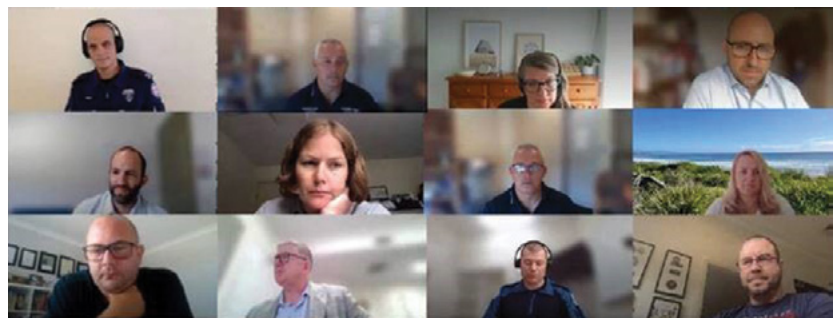
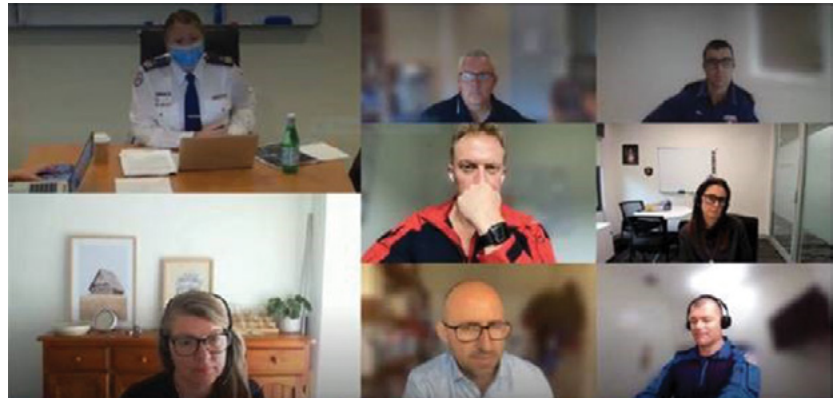
Clinical effectiveness refers to ensuring the right care is delivered to the right patient (who is informed and involved in their care), at the right time, by the right clinician, with the right skills, in the right way. The primary purpose of the newly formed Clinical Practice Committee (CPC) [formerly Clinical Advisory Committee] is to be the custodian of clinical practice standards and peak decision-making body on issues relating to clinical practice, procedures, medications, and clinical equipment.

Representative members were selected through an EOI process in late 2021 and monthly CPC meetings commenced in February 2022. The committee is an inter-professional and multidisciplinary team of specialists including paramedics (ICP, ECP, CCP), nurses, paramedic academics, psychologists, and doctors (critical care, palliative care, primary care, and prehospital & retrieval medicine). In addition, there are two community representative members rounding out the CPC membership and included to elevate the voice of community and consumers. This has evolved this important clinical committee to involve input from key stakeholders across NSW Health to inform best practice that meets the needs of our consumers, patients, and health services we interact with.

The CPC receives recommendations from relevant sub-committees and working groups and makes decisions relating to existing and proposed clinical practice (practice / skill / drug / device / intervention). The CPC also considers relevant advice issued by pillar agencies such as the Agency for Clinical Innovation and the Clinical Excellence Commission.

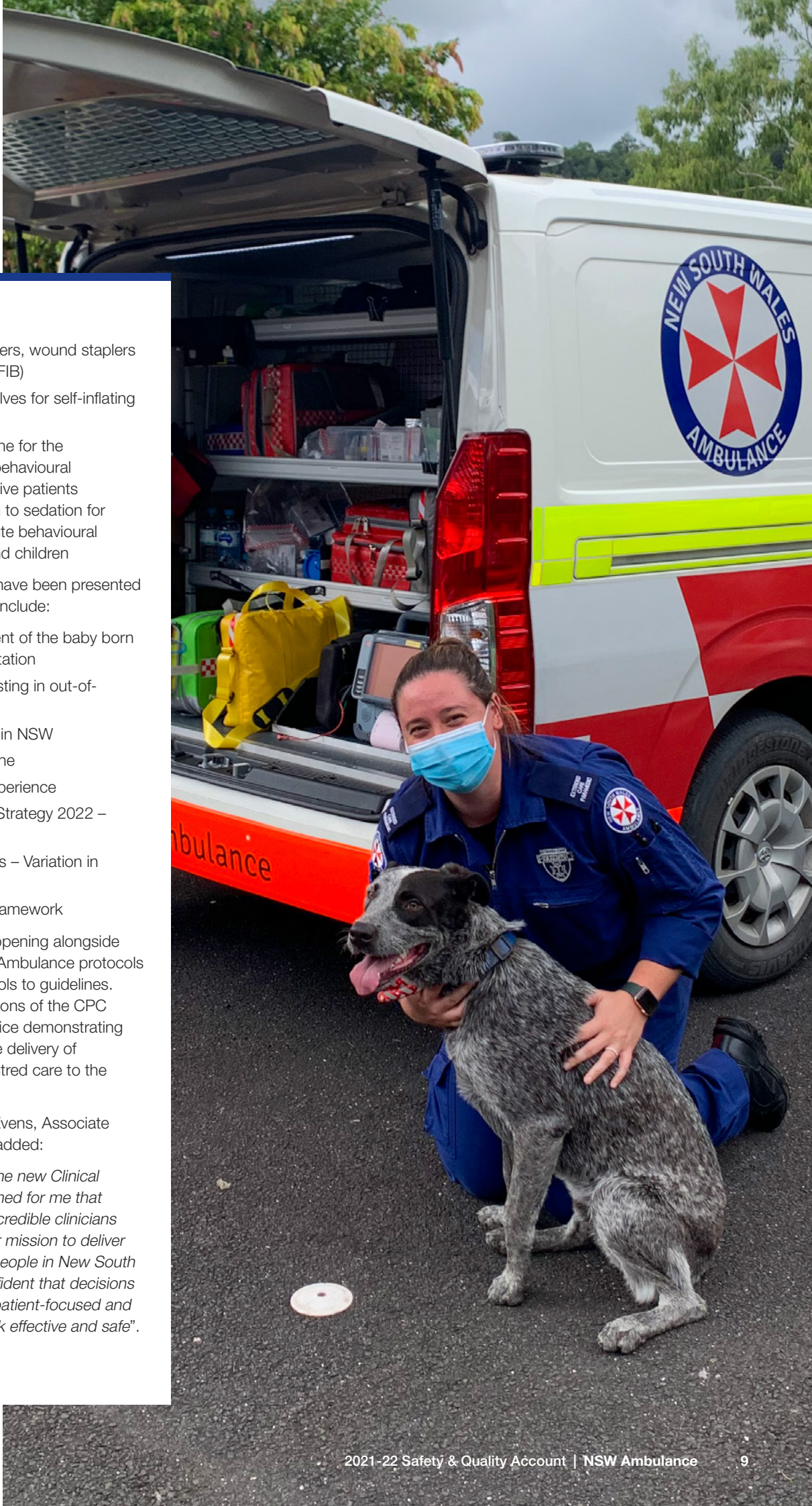
Items for decision that have been submitted to the CPC members for endorsement have included:

- Pandemic Management Protocol (NSWA1) update (v 2.2) to Pandemic Modifications version 3.0
- Palliative care enhancement with the addition of restlessness and/or agitation as an indication for droperidol (at a reduced dose) and the addition of a repeat dose for morphine
- The introduction of IV/IM Midazolam for paramedics use in context of CPR 'interfering' (induced) consciousness



“Staff should be confident that decisions coming from the CPC are patient-focused and are driven to make our work effective and safe”

- Revision of Aeromedical Operations Clinical Practice Standard AO.CLI.14 to include labetalol and leviteracetum
- Evaluation and expansion of IV fentanyl proof-of-concept for specialist clinicians (ICP / ECP / CCP) and flight nurses
- Addition of adrenaline auto-injector to be carried and administered by Clinical Volunteers for the management of anaphylaxis
- Scope enhancement for ECPs including but not limited to additional antibiotics; analgesics (Paracetamol / Codeine (500/30), Paracoxib),



coude tip urinary catheters, wound staplers and fascia-iliaca block (FIB)

- Routine use of PEEP valves for self-inflating resuscitators
- Introduction of olanzapine for the management of acute behavioural disturbance in cooperative patients
- Review of our approach to sedation for the management of acute behavioural disturbance in adults and children

Papers for discussion that have been presented and will inform future work include:

- Pre-hospital management of the baby born at extreme preterm gestation
- Role of point-of-care testing in out-of-hospital setting
- Value based healthcare in NSW
- Definition of paramedicine
- Elevating the human experience
- NSW LGBTIQ+ Health Strategy 2022 – 2027
- Quality Safety Standards – Variation in Clinical Practice
- Evidence to Decision Framework

The work of the CPC is happening alongside the review of current NSW Ambulance protocols and the transition of protocols to guidelines. Clinicians will see the decisions of the CPC translated into clinical practice demonstrating ongoing commitment to the delivery of high quality and patient centred care to the community of NSW.

CPC member Dr Thomas Evens, Associate Director Medical Services, added:

“Meeting the members of the new Clinical Practice Committee confirmed for me that this group of experienced, credible clinicians is going to ably support our mission to deliver the best possible care for people in New South Wales. Staff should be confident that decisions coming from the CPC are patient-focused and are driven to make our work effective and safe”.



Priority 1: Aboriginal Health



Improving engagement and partnering with the community to provide safe, culturally appropriate care was a priority in 2021/22 with the endorsement of NSW Ambulance’s first Reconciliation Action Plan (RAP) detailing how we can extend our excellence in care to better encompass Aboriginal and Torres Strait Islander communities, families, and patients.

Reconciliation Action Plan

The Reconciliation Action Plan (RAP) 2021/22, mapped out the beginnings of our contribution to the reconciliation movement taking place between Aboriginal and Torres Strait Islander peoples and the wider Australian community. It detailed practical actions for NSW Ambulance to undertake to build strong relationships and enhance respect in our workforce.

NSW Ambulance pledged “to make a positive contribution to the health and wellbeing of Aboriginal and Torres Strait Islander peoples. We want to ensure Aboriginal and Torres Strait Islander peoples have complete access to patient care which they feel is culturally safe and responsive, and jobs that offer secure employment in a workforce that recognises and values diversity and inclusion”.

Initiatives and achievements included

- Targeted Aboriginal recruitment campaigns
- Aboriginal Paramedic Study Groups for Intensive Care Paramedic, Extended Care Paramedic and Rescue Paramedic selection

- NSW Aboriginal Procurement Policy utilised by Risk & Safety to engage Aboriginal service provider
- Respecting the Difference eLearning completed by 95% of staff and face-to-face by 80%
- National Close the Gap Day, National Reconciliation Day and National NAIDOC Week promoted
- A Welcome to Country held at formal events including the Senior Managers Conference, Graduation ceremonies, station openings, and the launch of our new fixed wing fleet
- NSW Indigenous Veterans Commemoration Service 2022 attended by Brad Goodwin, Associate Director Risk & Safety
- Keynote address at the National Closing the Gap Indigenous Health Conference 2022 delivered by Heart Yarns facilitator, Mark Trebley

Targeted Aboriginal Recruitment

Through targeted recruitment, Aboriginal and Torres Strait Islander paramedics are able to progress into specialist paramedic and managerial roles leading to better access to advanced clinical care for Aboriginal and Torres Strait Islander peoples, and greater awareness and informed decisions about Aboriginal and Torres Strait Islander health care.

Targeted Aboriginal recruitment programs during 2021/22 resulted in the appointment of 12 Aboriginal Graduate Paramedics, two Aboriginal Trainee Paramedics, and two Aboriginal Control Centre employees. In addition, six Aboriginal Paramedics were successful in being selected for Extended Care Paramedic or Intensive Care Paramedic roles. These workforce enhancements

mean better access for the Aboriginal community to culturally safe patient care and specialist treatment.

NSW Ambulance is committed to meet the Public Service Commission's mandate of three per cent Aboriginal representation in all non-executive salary bands and participate in the goal to double the number of Aboriginal people in senior executive roles, by December 2025. As of 30 June 2022, 2.89% of NSW Ambulance employees were of Aboriginal and/or Torres Strait Aboriginal descent.

During National Close the Gap Day and National NAIDOC Week, two of our Aboriginal staff shared what culture, family, career, and these important annual events mean to them.

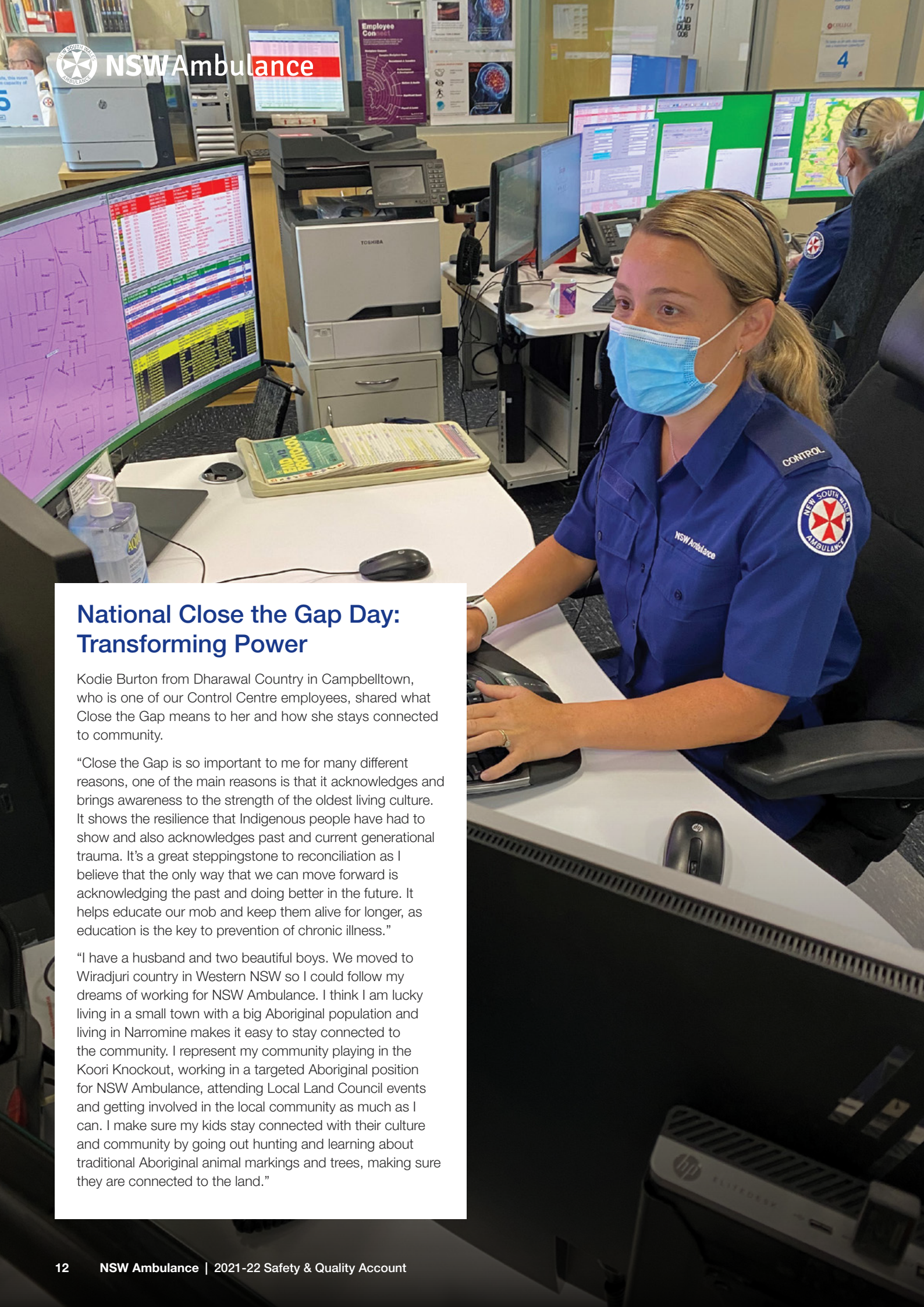
Reconciliation Action Plan cover art

NSW Ambulance is honoured to feature the painting 'Walcha' by Justin Payne for the Reconciliation action Plan.

Like many traditional Aboriginal artists, Justin found inspiration for his painting from his local environment and used a dot painting technique to capture his vision.

'Walcha' represents Apsley Falls at Walcha in New South Wales. The blue middle area that runs from left to right is the Apsley River, and down in the bottom-right corner is the falls. The small and big circles in the river are rocks. On each side of the river are paths that run down to the lookouts. A swing bridge crosses the river to connect the paths. The sun is featured in the top-right corner and the rest of the painting includes plants, grasses and rocks.





National Close the Gap Day: Transforming Power

Kodie Burton from Dharawal Country in Campbelltown, who is one of our Control Centre employees, shared what Close the Gap means to her and how she stays connected to community.

“Close the Gap is so important to me for many different reasons, one of the main reasons is that it acknowledges and brings awareness to the strength of the oldest living culture. It shows the resilience that Indigenous people have had to show and also acknowledges past and current generational trauma. It’s a great steppingstone to reconciliation as I believe that the only way that we can move forward is acknowledging the past and doing better in the future. It helps educate our mob and keep them alive for longer, as education is the key to prevention of chronic illness.”

“I have a husband and two beautiful boys. We moved to Wiradjuri country in Western NSW so I could follow my dreams of working for NSW Ambulance. I think I am lucky living in a small town with a big Aboriginal population and living in Narromine makes it easy to stay connected to the community. I represent my community playing in the Koori Knockout, working in a targeted Aboriginal position for NSW Ambulance, attending Local Land Council events and getting involved in the local community as much as I can. I make sure my kids stay connected with their culture and community by going out hunting and learning about traditional Aboriginal animal markings and trees, making sure they are connected to the land.”

National NAIDOC Week: Aboriginal Ambulance Officer leaves a lasting legacy

Our first recorded Aboriginal Ambulance Officer Leo Watts shared ahead of NAIDOC Week his upbringing and his involvement in the NSW Ambulance Legacy program as a retired Ambulance Officer. The NSW Ambulance Legacy program offers social connection, support, and information for those that have retired or are transitioning into retirement.

“NAIDOC week is a time for remembrance and reminds me that we must continue to educate ourselves, so we continue to do better and achieve success in our chosen fields – this is what our old ones fought for.”

“I’m a Wiradjuri man with a strong cultural upbringing from my mother, who was born and lived on Warangesda Aboriginal Mission at Darlington Point in the Murrumbidgee area. For four years I lived on the banks of the Murrumbidgee River with my brothers and mother, in a tent 3km out of town at Darlington Point. I was approached by an old war veteran who served in the Red Cross, who told me I would make a good ambo. I was curious and signed up as a Volunteer Ambulance Officer from 1966-1968. Then I was made permanent at Leeton Ambulance Station. I retired on 18 September 1998.”

Leo shared about his important work with NSW Ambulance Legacy after his retirement. “When one of my close mates - a former Ambo - suicided, it broke me. From this moment, my wife and I committed ourselves to supporting my friends, retired colleagues and NSW Ambulance Legacy. We organise events and social-get-togethers and provide welfare checks on retired officers. We faced so much together, especially back then, so it’s important to talk about our time in the service - the difficult moments and the comradery. The job was part of our identity and we all loved it. I’m very proud to have been a NSW Ambulance Officer and its first Aboriginal officer.”



Above: Leo with his wife Doreen and children.



Left: Leo standing by his ambulance vehicle at his family farm at Wamoon in 1988



Heart Yarns update

An important focus of our efforts towards achieving improved health for Aboriginal and Torres Strait Islander peoples is our ‘Heart Yarns’ Aboriginal Cardiac Care Awareness program. ‘Heart Yarns’ is NSW Ambulance initiative that aims to address the high mortality and morbidity resulting from cardiovascular disease for Aboriginal peoples by sharing health knowledge in a culturally appropriate way.

NSW Ambulance Paramedic and Program Manager of Heart Yarns, Mark Trebley, delivered the opening keynote presentation at the National Closing the Gap Indigenous Health Conference 2022 where Indigenous delegates from across Australia came

together to share stories and experiences around Closing the Gap.

“It was exciting to be told by several delegates that they had heard good things about our program and to field requests for engagements, including from Cherbourg in Qld. I don’t think it too much of an exaggeration to say we are seen as a leader in the arena of culturally appropriate and safe engagements with Indigenous Peoples”.

‘Heart Yarns’ aims to share important health knowledge ‘Both Ways’ with Aboriginal Peoples in a culturally safe and appropriate manner. We acknowledge that all Indigenous knowledge shared with us belongs to the communities who provided it.

NSW Ambulance – National Close the Gap Day – Real World Actions

In March 2022 a panel discussion was held to recognise National Close the Gap Day and acknowledge our collective effort to bring about Aboriginal health and equity. The theme of the discussion was Real World Actions, and all staff were invited to join the webinar.

With a focus on improving the health and living standards of aboriginal people, the conversation included what Closing the Gap means to panel members as well as the positive initiatives that they’d been involved in to Close the Gap while working at NSW Ambulance.

“There’s a lot of influence that all health professionals, particularly leaders of health organisations can have, so moving beyond righting the wrongs, this is a discussion around recovery, around resilience, and for those of us who are allies, it’s a discussion and an exercise of listening”.

“It means for me that my family, and all of my kin, have the same opportunities as everybody else”.

“We reached out to an Indigenous business that is registered with Supply Nation under the Aboriginal Procurement Policy to do the (fatigue management) training”.

The panel touched on documented targets and outcomes that the Closing the Gap strategy aims to achieve including formal partnerships, shared decision making, and the co-design of policy and programs that are being developed to better the lives of Aboriginal people.



With the theme of Transforming Power, the panel considered how we can better support Aboriginal people to lead the change they feel is needed and how our paramedics can engage more fully on the frontline. They suggested that the opportunity to prioritise our indigenous staff to work on country could improve both the employment rate and build the health literacy of the community they’re on as they’d feel more engaged.

“Allyship is the best description I think you could have. It clarifies everyone’s role and responsibility and where we can add value”.

“The gap is still massive and is something we should be thinking about at every turn, particularly as a health service and as a group of health professionals”.

Top right: NSW Ambulance Paramedic and Program Manager of Heart Yarns, Mark Trebley seated far right

Bottom right: Brewarrina Paramedics Caelin Loxton and Angus Dalton, along with Brewarrina firefighter Burra Mchughes





Priority 2: Care Pathways

Building on the Secondary Triage program, NSW Ambulance introduced a Virtual Clinical Care Centre (VCCC) and is developing improved referral networks for patients to receive safe, high-quality care in the most appropriate setting which may not necessarily involve transportation to Emergency Departments. As such, referrals from NSW Ambulance staff and provision of care in the community can deliver flow on benefits across the NSW Health system while delivering patient care.

Virtual Clinical Care Centre (VCCC)

The VCCC commenced operations in September 2021 at the Disaster Recovery Site in Rozelle operating from 0600-2300hrs. It was staffed with nine VCCC Clinicians (Extended Care Paramedics) and five Patient Tracking Clinicians (EMD certified/ Qualified Paramedics) with the aim to provide Secondary Triage and Referral to patients presenting with symptoms of COVID-19.

The VCCC has since seen significant expansion. It relocated to the Gladesville site and commenced 24/7 operations staffed by 24 VCCC Clinicians (Extended Care and Intensive Care Paramedics), five Patient Tracking Clinicians and 22 Clinical Support Assistants. The functions of the VCCC expanded to include:

- Secondary Triage and Referral to Priority 2 patients in the state-wide pending incident queue
- VCCC Clinicians monitoring all pending incidents for high acuity or deteriorating patients to provide advice whilst waiting for paramedics to arrive
- VCCC Clinicians providing clinical advice to frontline paramedics who are on scene with COVID patients. They can assist and guide them to work within their scope to provide the safest clinical care to our patients
- VCCC Clinical Support Assistants monitoring the pending incident queue to keep patients and facilities informed of extended response times and monitoring patient condition for any signs of change or deterioration
- During the recent flood events, the VCCC maintained contact and provided clinical advice and support to patients who were isolated or inaccessible.



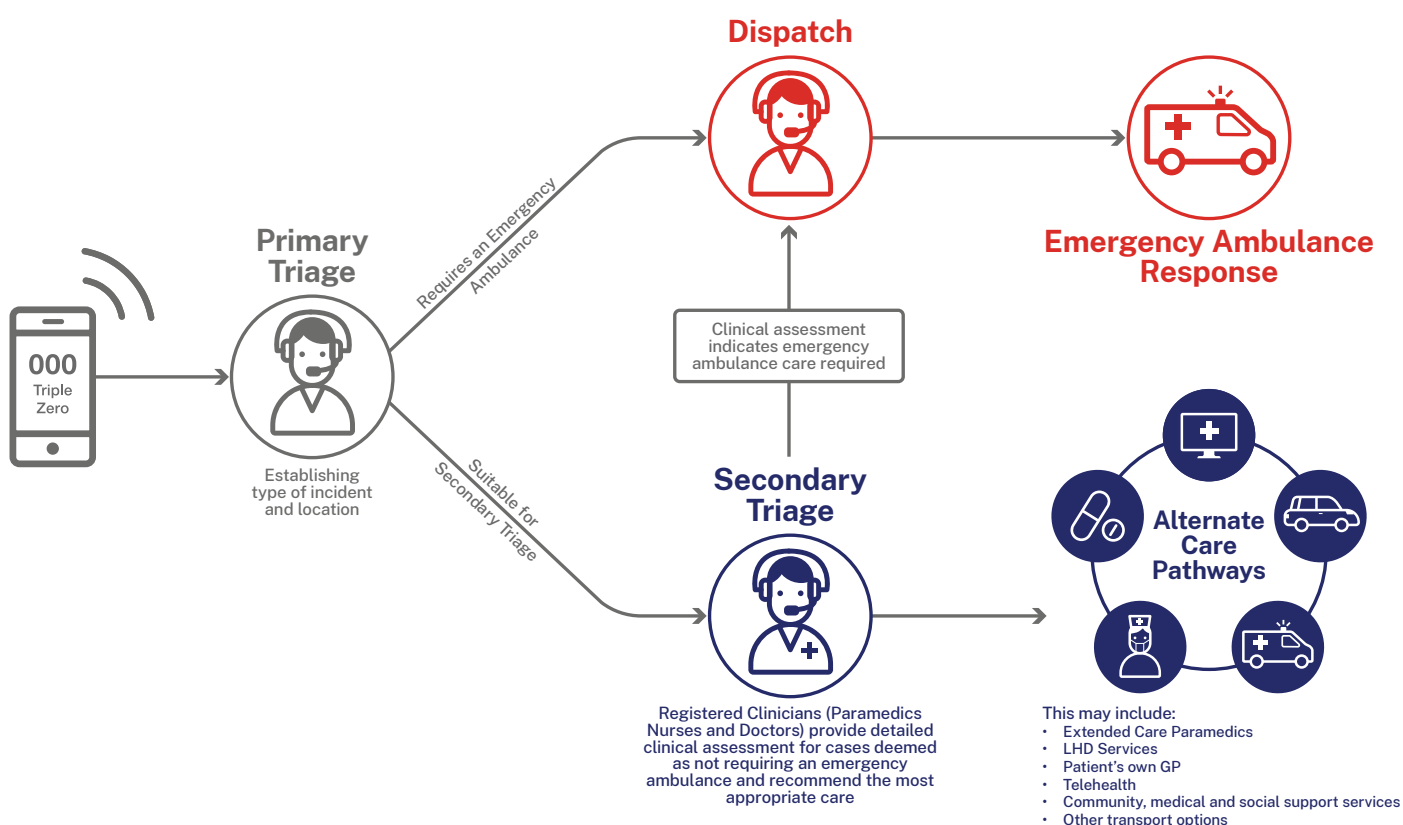
The VCCC has been operating since September 2021

In January 2022 the My Emergency Doctor (MED) Pathway was expanded to include referrals from VCCC Clinicians. In addition to the Residential Aged Care Facilities (RACF) patients, the VCCC has referred 2,179 low acuity patients to MED (Jan 2022- June 2022) with 91% of patients managed by MED.

The Integrated Care Team have developed a total of nine Referral Pathways for VCCC Clinicians to access across multiple Local Health Districts (LHDs). The limited number of referral options, and inconsistencies across LHDs have been challenging for the VCCC and Integrated Care Teams to navigate and continue to be a key focus for development and support in the next 12 months.

The procurement of an integrated software solution is another key focus area to assist the VCCC in improving efficiency through seamless triage, patient record and data capture as well as the implementation of the Response Grid Review. The implementation of video software to provide face to face virtual assessment is planned. This will provide another layer of patient safety. This is well supported by Information and Digital Services.

VCCC Secondary Triage and Overview



Clinical Systems continues to work closely with the Ministry of Health to further develop and enhance the referral network for VCCC clinicians. Moving forward, the VCCC will look to accept general clinical advice calls to support clinicians on scene with complex cases.

NSW Ambulance's vision is to provide comprehensive and integrated "in-house" Secondary Triage and Alternative Referral services (STARs) within a purpose designed and built Virtual Clinical Care Centre (VCCC) co-located and integrated within our State Operations Centre.

The COVID-19 VCCC-STAR program has the following core objectives:

- To safely reduce unnecessary emergency department presentations and admissions

- Enhance the patient experience of accessing urgent/unscheduled healthcare
- Optimise patient flow across NSW (particularly in times of high demand)
- Improve patient outcomes
- Improve operational performance
- Support NSW Ambulance clinicians to make safe decisions
- Provide seamless integration with non-ED models of care provided by Local Health Districts (physical and virtual) and Primary Care Networks

The NSW Ambulance VCCC has been an effective strategy in managing demand, enhancing patient safety, supporting clinicians, reducing demand on emergency departments, and integrating with the wider health system.



Priority 3: Clinical Programs

The design and implementation of innovative care models to provide compassionate, patient-centred clinical care continued in 2021/22 with a focus on stroke and palliative care. Despite advances in stroke treatment in recent decades, stroke is still one of the nation’s biggest killers and is a leading cause of disability. Due to this, there is an increasing focus internationally on implementing a range of initiatives to improve outcomes for stroke patients. Within NSW Ambulance, these initiatives include the NSW Telestroke Service, the Stroke Ambulance Pilot and the introduction of a Stroke Protocol that incorporates a 24-hour clinical window.

NSW Telestroke Service

The NSW Telestroke Service provides people across NSW with rapid virtual access to specialist stroke diagnosis and treatment. The implementation of 23 hospital referral sites has been completed with the last site being launched at Broken Hill in June 2022 and NSW Ambulance’s mobile referral site for this service is currently being developed (Stroke Ambulance Pilot).

The service connects regional hospitals to a centralised network of specialist stroke physicians through virtual telehealth technology to improve access to time-critical diagnosis and treatment. NSW Ambulance paramedics have been a crucial part of the NSW Telestroke Service since its implementation, which has required changes to ambulance bypass and a focus on stroke assessments, prehospital notification, and comprehensive clinical handover processes. This has supported improved access to specialist diagnostics and reperfusion therapy to decrease time to reperfusion and reduce stroke related morbidity.

The use of the Hunter 8 and modified Rankin Scale (mRS) scores by NSW Ambulance paramedics to assess stroke severity and pre morbid function are key pieces of information that are vitally important in the continued care of the patient. A pre-morbid mRS score provides information to the stroke team on a patient’s level of disability and dependency in their activities of daily living prior to the acute stroke event. This information assists in determining the most appropriate treatment for patients and forms part of the eligibility criteria for reperfusion therapies.

Paramedic assessment of stroke severity using the Hunter 8 stroke score also supports the identification of patients likely to have a large vessel occlusion and are therefore potentially eligible for endovascular clot retrieval.

“When a stroke strikes, it kills up to 1.9 million brain cells per minute, but early treatment can stop this damage. Time saved in accessing stroke treatment is brain saved — Stroke Foundation



“The statewide Telestroke Service has improved timely access to acute stroke treatment for patients in rural and regional NSW. The success of this program is based on a team effort from a large and varied group of healthcare professionals, but it all begins with NSW Ambulance staff, who recognise stroke patients and get them to the primary Telestroke hospitals. Thank you all for your efforts to date and I look forward to future collaborations in the pre-hospital space.”

Professor Ken Butcher, Medical Director NSW Telestroke Service & Director of Clinical Neuroscience UNSW, Prince of Wales Hospital

NSW Stroke Ambulance Pilot

NSW Ambulance is working with the Ministry of Health, Agency for Clinical Innovation, NSW Telestroke Service and Local Health District partners following the NSW Government announcement of \$10 million funding for the NSW Stroke Ambulance Pilot. The specially equipped ambulance will have a CT scanner, a mobile laboratory and a specialist multidisciplinary team on board the vehicle. The Stroke Ambulance offers the capability to provide treatment to acute ischaemic stroke patients prior to arrival at hospital. Patients can be rapidly diagnosed and receive thrombolysis (administration of clot busting medication) in the pre-hospital environment or be transferred directly to a hospital for endovascular clot retrieval (removal of the clot from a blood vessel) if clinically appropriate.

The NSW Stroke Ambulance will operate as a mobile referring site for the NSW Telestroke Service, making it Australia's first MSU to use virtual care telemedicine as the primary means of consultation with a neurologist. This model will build on the success of the recently implemented NSW Telestroke Service that has improved access to time critical stroke care in regional areas.

In collaboration with partner agencies the following milestones were reached in 2021/22:

- Construction of a mock-up vehicle to inform the design of the vehicle and for use during clinical simulations
- Geospatial analysis completed
- Model of Care document developed
- Monitoring and Evaluation Plan endorsed

Timely management of stroke is critical to improving outcomes for patients. "The clinical benefits and improved patient outcomes of Mobile Stroke Units to diagnose and initiate treatment of ischaemic stroke have been reported both locally and internationally" said Sarah Edwards, manager of the Stroke Program. This pilot will support NSW Ambulance staff in partnership with LHD clinicians and the NSW Telestroke Service to provide the highest standard of stroke care to patients.



Construction of a mock-up to inform the design of the vehicle and for use during clinical simulations was one of the key milestones in 2021-22

New Stroke Protocol

The introduction of a new Stroke Protocol in April 2022 that includes an extended clinical window for suspected stroke patients, from 4.5 hours to 24 hours, reflects current evidence which supports patients receiving reperfusion therapy up to 24 hours post-symptom onset. These reperfusion therapies to restore cerebral blood flow include thrombolysis and endovascular clot retrieval; thrombolysis for acute ischaemic stroke patients has been the mainstay of hyperacute treatment for a number of decades and endovascular clot retrieval is now a well-established, highly effective treatment for patients with a large vessel occlusion. In addition, the Stroke Protocol will also facilitate the direct transfer of patients to a facility with stroke unit care. This is supported by the Australian and New Zealand Clinical Guidelines for Stroke Management. The new Stroke Protocol took effect from 1 April 2022 in participating areas of metropolitan Sydney and NSW Ambulance is currently working with key stakeholders with the aim of implementing this protocol across regional NSW.



Palliative Care Communications Toolkit

Clinical Systems has developed a Palliative Care Communications Toolkit to support paramedics to deliver high quality, compassionate out-of-hospital palliative care. These resources provide information to paramedics, health practitioners and community members to raise awareness and knowledge of the paramedic's role in providing palliative care.

The Toolkit is comprised of the following factsheets: A guide to paramedics' role in palliative care. This factsheet contains information regarding the clinical management of palliative care patients, end of life and patient disposition decision making and after death support.

A health practitioner guide to paramedics' role in palliative care. This factsheet informs health practitioners about the NSW Ambulance paramedic palliative care scope of practice, paramedic care approach for delivering out-of-hospital care and the changes to the NSW Ambulance Authorised Care program.

A community guide to paramedics' role in palliative care. This factsheet provides guidance to patients, families and carers about what to expect if they require palliative care from a paramedic and how to communicate their end-of-life preferences in emergency situations.



Authorised Care Program

NSW Ambulance remains committed to providing a mechanism where patients who require care that is complex or outside of current paramedic scope of practice can receive it. Supported by NSW Ambulance Medical Services, continuous improvement methodology is being utilised to improve experiences for patients, families, and providers of care.

The Authorised Care Program has been an integral component embedded in current paramedic practice since 2014. It was designed to strengthen systems to support paramedic decision making in meeting the needs of individual patients with complex medical conditions or palliative goals of care that cannot be met within the existing paramedic scope of practice.

The following safety and quality improvement initiatives have been implemented within the program to mitigate any potential patient safety risks, strengthen processes, and maintain patient confidentiality and integrity principals;

- The adoption of a new and secure process where all Authorised Care Plans are now entered into a secure file

storage system called InReach – providing a much simpler, structured workflow tool and approval process for all confidential care plans. All information entered into InReach is then automatically captured and stored directly with the NSW Ambulance digital records management system Content Manager ensuring compliance with the State Records Act 1998. Adopting this process has ensured record management compliance and a reduction in risks associated with the management of sensitive clinical information.

- The introduction of Kiteworks Secure File Transfer Service, a NSW Health endorsed system to send and exchange file attachments securely either within NSW Health or externally. Authorised Care Plans were previously emailed through the Microsoft Outlook Emailing System to patients, carers and other health professionals which was not encrypted or secure. Endorsed Authorised Care Plans will now be returned through this secure file platform and be password protected to increase the security of the information in the document and to ensure they are only accessible by intended receiver/s.



New Intensive Care Ambulances Roll Out

The recent record budget announcements included \$34 million over four years to convert 246 paramedics to Intensive Care Paramedics, 203 of which will be in regional areas.

Delivery of the previously announced additional 69 Paramedic Intensive Care conversion ambulances is nearing completion and the specialist vehicles will be distributed across the state to identified locations.

A state-wide capability assessment was completed and identified specialist locations that are sub-divided into Category A and B locations for the purposes of allocating the new vehicles. Category A locations will form specialist hubs and are locations associated with a case-mix (volume and acuity) to support the potential future training of Intensive Care Paramedic interns. Category A locations will be allocated two specialist vehicles, predominantly due to overlapping workload. Category B locations have an acceptable case-mix to maintain and sustain currency and recency of practice

in a quality and safe manner for experienced ICPs, but do not have the necessary volume of practice to be a training location for Intensive Care Paramedics. Category B stations will be allocated one specialist vehicle, primarily due to the lower levels of workload.

The vehicles will be equipped with enhanced capability including mechanical CPR, video laryngoscopes, EZIO, CPAP, monitors capable of integrated and continuous critical care monitoring (ECG, NIBP, SpO2, waveform capnography) as well as the capability to provide transcutaneous pacing.

This record investment in specialist vehicles and equipment will help to ensure equitable access to advanced clinical skills in both regional and metropolitan areas, enhancing our clinical capability to achieve our goal of being the leading integrated, mobile health service providing high quality clinical care to the people of NSW with urgent and unplanned healthcare needs.





COVID-19 ICP equipment

In 2021 NSW purchased additional Intensive Care Paramedic (ICP) equipment that was introduced into the ICP scope in 2020 as part of the COVID-19 ICP Update.

The equipment comprised of EZIO (adult intraosseous), McGrath Video Laryngoscopes (VL), and Continuous Positive Airway Pressure (CPAP) masks. These sets are additional to the equipment that has already been allocated to the 104 funded ICU Amtek Ambulances that are currently being deployed across the state.

The equipment will be issued to currently credentialed ICPs who have completed the upgrade training and the additional sets will be rolled out along with the allocated Intensive Care Units in the near future. They will be made available to operational ICPs in patient-facing positions such as Duty Operations Managers, Motorcycle Rapid Response Units, SOT specialists, Paramedic Educators, PICUs and Clinical Training Officers. Sets will also be provided to the AEC and Regional Education Units to assist in continuing professional development activities. This is a significant investment in clinician and patient safety.

Crash Drawer Medication Insert

Over the last two years extensive project work has been undertaken by the Medication Management Committee, in collaboration with the Clinical Equipment and Ergonomics Group, around medication storage and standardisation within frontline ambulance vehicles. One component of this project has resulted in the development of a crash drawer medication insert for both the Varley and Amtek build vehicles. This insert is one of four anticipated improvements to medications storage that will occur in NSW Ambulance.

The medication insert has been designed to create standardisation across the state, allowing for smoother paramedic practice and improved patient safety. This is achieved by separating similar looking and similar-sounding medications; and by alternating vials, glass ampoules and polyamps to reduce the risk of wrong medication errors in an emergency situation.



An example of the new crash drawer medication insert

NSW Ambulance Airway Registry Version 2

The NSW Ambulance Airway Registry Version 2 has been released and is open to all clinicians who perform advanced airways (Supraglottic Airways (i.e. iGel) and endotracheal intubation). Two years ago, NSW Ambulance introduced an online airway registry providing a tool for NSW to evaluate the use of video laryngoscopy introduced as part of the Intensive Care Paramedic (ICP) upgrade.

The preliminary results from the first year of the registry were recently reported internally and published in Emergency Medicine Australasia. Data captured from the airway registry identified that our intubation success rate was improved with the use of video laryngoscopes and subsequently led to an expansion of their use. A number of complications with contaminated airways were also identified and

this resulted in the introduction of the large bore DuCanto suction catheter.

The aim of the new airway registry is to capture more than simply the success or failure of the intervention, but also factors such as indications for advanced airway management, predicted difficulties, patient positioning, presence of airway contamination, method of confirmation and more. If multiple attempts at airway management are required, the registry elicits enough detail for the system to be able to learn from this information.

The new registry is designed to be easier for clinicians to complete and enables continuous improvement.

Quality Audit Reporting System (QARS)

NSW Ambulance is committed to continuous improvement of patient safety and clinical quality. A service-wide rollout of the Quality Audit Reporting System (QARS) platform for clinical quality audits and surveys is underway following a positive trial of an audit tool for Restricted Medications.

QARS is a web-based platform for conducting clinical quality audits and surveys. It was developed by the Clinical Excellence Commission specifically for NSW Health organisations and is currently used across all Local Health Districts and Specialty Health Networks within NSW.

Under the NSW Ambulance Medications Management Policy Directive and Operating Procedure, audits of Restricted Medications (RM) must be completed each week. These audits provide a process to monitor RM state-wide including identifying suspected tampering or diversion and a physical stock check. These audits are completed via the Restricted Medication Audit Tool (RMAT) which has traditionally been hosted on SharePoint.

The RMAT has been built and tested on QARS and trialled at Artarmon Superstation, Penrith Superstation, Belrose Station, Eden Station and Mascot Fixed Wing Base. The trial received positive feedback with regards to ease of accessing and completion compared with previous processes.

A QARS Working Group was formed in March 2022 including representatives from Clinical Systems, Clinical Operations and Aeromedical Operations Directorates. The Working Group steered implementation to ensure QARS is tailored to meet operational demands.

For NSW Ambulance, QARS implementation will

- Allow new and existing audits and surveys to be built and conducted within a single platform
- Provide a platform for audit that has user-friendly front-end capabilities, is easy to use, and can be accessed via mobile phone
- Allow organisation wide audits and surveys to be conducted as well as specific sector or business unit, for example an audit can be conducted for a local quality improvement project within a Station, Zone or Sector
- Allow benchmarking with other NSW health entities and across sectors and business units within NSW Ambulance when the same auditing tools are used





Priority 4:

Credentialing Framework

Clinical Credentialing Framework

NSW Ambulance has developed a clinical credentialing framework incorporating all clinical craft groups. The framework articulates the obligations, responsibilities and governance processes required to ensure that all NSW Ambulance health practitioners are appropriately skilled, qualified, and competent to deliver health services to the NSW community. Credentialing supports patient safety by ensuring health practitioners provide care within the bounds of their education, training, competence, and within the capacity and capability of NSW Ambulance as a health care provider. It also provides direction and support to clinicians in meeting credentialing requirements.

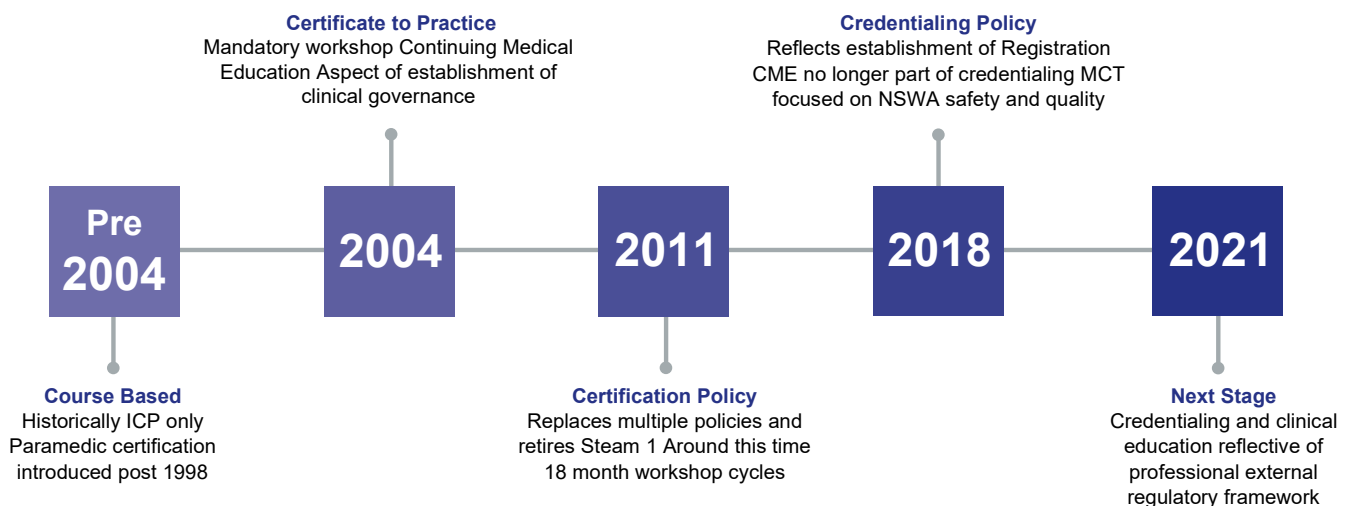
Progress in 2021/22 included

- Terms of Reference being developed by a working group to enable the establishment of a Credentialing and Education Governance Committee. This committee will be made up of internal and external representatives including credentialing experts. It will oversee the establishment of the credentialing framework. The Terms of Reference have been formally approved and the committee will be established and commence operation during the 2022/23 period.

- Engagement with paramedic industrial bodies resulting in the development and release of a jointly endorsed position paper *Clinical Credentialing Framework: Principles and their application to paramedicine credentialing*. This was released to staff on 24 December 2021. The paper supports paramedics understanding what credentialing is, why it's important and how it can be applied to the paramedicine context.
- New procedures for paramedic and paramedic specialist credentialing are being developed and approved for implementation. These procedures are based on the principles described in the position paper *Clinical Credentialing Framework: Principles and their application to paramedicine credentialing*. The procedures are due for implementation in 2023.

Through this governance structure and the implementation of the credentialing principles, the Credentialing Framework can provide confidence that NSW Ambulance paramedics and specialists are competent and safe to provide health care within their authorised scope of practice.

Evolution of Credentialing



Clinical Volunteer update

Clinical Volunteers (CVs) are an integral element in NSW Ambulance providing clinical services across the state, particularly in regional and rural communities.

Achievements in 2021/22 include:

- In December 2021 Nana Glen Clinical Volunteer team transitioned to the new Community Emergency Response Team (CERT) model of operations. This saw the team presented with a new CERT response vehicle provided by NSW Ambulance. The vehicle is fully marked in operational livery with red/blue warning lights providing for much greater CERT safety when operating on the side of the road. In addition, the vehicle also has a Mobile Data Terminal and vehicle radio, which, for the first time, provides real time geolocation of the vehicle and enhanced radio communications back to the Control Centre.
- The mandatory Monthly Maintenance of Skills program included WHS and Infection Control modules, both operationally contextualised for the Clinical Volunteer workforce. These modules are required to be completed by all



clinical volunteers in order to maintain their clinical accreditation.

- The Paramedic Facilitators who mentor each Clinical Volunteer unit continue to complete the Certificate IV Training & Assessment. This is a significant uplift in capability that will value add to their training activities.

Nana Glen's Community Emergency Response Team (CERT) vehicle

Paramedic Mandatory Continuing Professional Development (MCPD)

A key component of clinical credentialing for the paramedic craft groups is what has been traditionally referred to as Mandatory Clinical Education. In 2022 NSW Ambulance introduced Mandatory Continuing Professional Development, a more contemporary education approach to enable the rapid introduction of new equipment and facilitated practice reviews while maintaining an important foundation of lifelong learning and helping paramedics to maintain and enhance their practise confidence and capability.

The impact of COVID19 required NSW Ambulance to adapt education programs to ensure we were able to maintain ambulance services throughout the duration of the pandemic with a strong focus on clinician and patient safety. Surging the frontline workforce at different stages of the pandemic was an important strategy in supporting maintenance of service delivery and staff

safety and wellbeing. The ability to rapidly and safely recruit, on-board, equip and deploy this workforce required unprecedented commitment to innovation, integration and agility.

In 2021/22 with the increase in community vaccination rates and eased restrictions, NSW Ambulance was able to reintroduce mandatory training to the clinical workforce with a more contemporary approach. The introduction of Mandatory Continuing Professional Development in March 2022 aims to provide education and training to the operational workforce amounting to increased regularity of interactions with education allowing clinicians greater investment in their own clinical capability. The two-day program will achieve a faster exposure to clinical and organisational change, more regular involvement with the teams and a structure that will maintain a higher level of engagement for operational staff.



Specialised Training

NSW Ambulance staff need to be prepared to respond and treat patients in a variety of situations. To provide staff with the skills and experience required to ensure their safety while supporting the safety of patients, staff participate in training specific to providing pre-hospital care.

During 2021-22 the Special Operations unit conducted Swiftwater training, two Rescue courses and a Remote Area Access course. The training and courses further strengthened the depth in capability across the state to access patients in complex and austere environments.

Special Operations expanded its footprint with the introduction of the Katoomba and Lithgow SOT modules. This enables NSW Ambulance to provide a rapid specialised response in a geographical area well renowned for producing high end complex cases.

The Alpine Operations Team based in Perisher Valley made up of only 16 specialist paramedics, recently welcomed four new recruits. As part of their induction the recruits undertook a four-day, pre-season training program in the NSW alpine wilderness. This program forms the basis of a gruelling two-year traineeship. Every year the NSW ski fields see roughly one million enthusiasts attend for holidays. NSW Ambulance's team of alpine specialists use a range of equipment, from snowshoes to a five-tonne Hagglunds to retrieve patients from anywhere in the NSW alpine environments.

In June 2022 NSW Ambulance paramedics took part in an elaborate mass casualty training exercise which included a scenario in which a plane exploded at an airbase. The exercise allowed responding paramedics an opportunity to practice



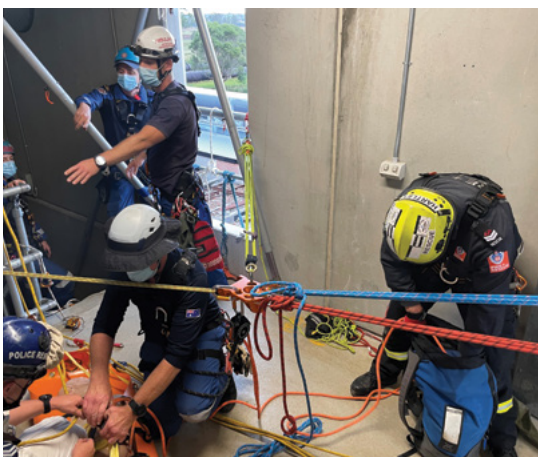
their knowledge and understanding of NSW Ambulance's role in a mass casualty incident.

Patients needing to be rescued from tight spaces, tall buildings and de-railed trains were just some of the challenges facing teams at a recent joint agency Vertical Rescue Workshop conducted by the Special Operations Unit (SOU). Over the past three years NSW Ambulance has invested in updated vertical rescue equipment including new high directional frames, safety devices and hardware that has increased the safety for patients and staff during these operations.

Above: NSW Ambulance paramedics took part in an elaborate mass casualty training exercise at Richmond Airbase

Below right: Our patients receive the benefit through our increased skills and knowledge

Below left: Vertical Rescue Workshop conducted by the Special Operations Unit





Graduate Paramedic Program

Clinical Systems and Education in collaboration with KPMG have developed a Graduate Paramedic Induction Program that equips graduates with the foundational clinical skills, operational knowledge and leadership capabilities to meet credentialing requirements and qualify as a paramedic within NSW Ambulance. This program allows the graduate to build on their undergraduate knowledge in a staged approach, over a period of 12 months, where theoretical underpinnings are developed, applied to clinical scenarios, observed in a safe clinical practice environment, and are consolidated producing confident, capable, and competent paramedics.

A Graduate Paramedic Industry Reference Group (IRG) was established which included representation from Graduate Paramedic Interns, Qualified Paramedics, university delegates, Associate Professors, Doctors, Associate Directors, Paramedic Educators and Clinical Training Officers. The IRG provided

a collective point of advice and reference on the design, development, and implementation of the new Graduate Program. Education and the IRG, have ensured that the Graduate Paramedic Program meets the needs of the learner, is consistent with industry standards and expert opinion, and guides an improved framework that ensures the program maintains educational currency.

This program sets an industry standard and recognises clinical education as a critical component supporting the provision of compassionate, high quality, patient centred care for ongoing clinician development. The revised Graduate Paramedic Program has been designed with a strong focus on the needs of paramedics, patient, and patient safety and has produced contemporary solutions that are meaningful, evidence-based, as well as sustainable and scalable. It will ensure the graduates are on-boarded and credentialed as safe for independent practice.

Fatigue Management eLearning Module

A bespoke NSW Ambulance Fatigue Management eLearning module was released for completion in My Health Learning (MHL). The module has been specifically designed for NSW Ambulance workers who are undertaking safety critical roles and supports the recent release of the updated Fatigue Management Policy Directive and Operating Procedure in the Illawarra/Shoalhaven and Northern Rivers zones. The module will continue to be rolled out to the rest of NSW Ambulance.

The NSW Ambulance Fatigue Management module was developed in consultation with Pindara Training Services who were contracted under the Aboriginal Business Procurement Policy. Pindara support social outcomes by donating a percentage of their earnings to organisations who support Indigenous people and communities.





Priority 5:

Control Centre Reform

NSW Ambulance Control Centres manage the receipt, clinical triage, dispatch and oversight of all NSW Ambulance resources in response to requests for assistance from the community. Control Centre Reform is a significant opportunity to improve safety, quality and performance, by optimising technology and infrastructure, policy, governance and culture across service delivery.

Control Centres Re-Form Program (CCRP)

Control Centre Reform is a significant opportunity to improve safety, quality, and performance in NSW Ambulance, by optimising technology and infrastructure, policy, governance, and culture across service delivery. The Re-Form Program commenced mid-2021 and the program of work initially encompassed projects in Information Technology, Infrastructure, Clinical Systems and Clinical Operations. Work in the Control Centre space focussed on projects related to Control Centre Clinical Operations and workforce initiatives.

Planned project work in the Control Centre Operational space was significantly constrained in 2021/22 due to the unprecedented increase in demand for services related to COVID-19. Control Centres rapidly developed strategies to promote accessibility to Triple Zero calls to recognise the increase in demand whilst ensuring that essential advice was still provided to the caller, thereby maintaining service quality and patient safety. These strategies included a revision of the call taker script and the implementation of a range of tools, including updated caller advice, a recorded voice announcement to provide post-dispatch instruction and the introduction of the Emergency Rule during periods of sustained Triple Zero (000) demand. This allowed for urgent disconnect from Triple Zero (000) calls after essential information was provided. Further, a contingent of call taking staff were deployed to assist Ambulance Victoria with the pandemic, however, were recalled at short notice to increase operational rostering capacity earlier than had been planned.

NSW Ambulance also leveraged ICT and infrastructure systems to expand upon the capacity to support operational performance. Importantly, this included expediting the implementation of



the Virtual Clinical Care Centre that now provides a 24/7 secondary triage and virtual care service supporting the real time control centre operations.

Early results from Workforce Strategic planning in 2021 provided strong indications that there would be a shortage of Call Takers to meet Triple Zero call taking demand. To increase the supply of appropriately skilled individuals recruited, Control Centres enhanced the recruitment process by using a mix of written application, one-way interviews, skills testing and evaluation of candidates by a wider range of staff in a combination of quality, education, and management roles. In addition, on-the-job training was accelerated and enhanced by using a mix of mentors during normal business hours instead of a single mentor during the four days on/ five days off



roster pattern. This process has been successfully trialled and implemented at Southern Control Centre and was subsequently trialled in the other Control Centres in late 2021.

The cognitive load on NSW Ambulance dispatchers is increasing year on year. Sydney Control Centre dispatch staff were engaged to co-design and evaluate a new dispatch model based on realignment of tasks to improve efficiency and relieve

pressure on dispatchers. Many staff consultations were conducted, and a proof of concept trialled. Unfortunately, unprecedented demand for Triple Zero services occurred before changes were implemented. Future work in this space will review the dispatch model in other Control Centres, recognising that what works for Sydney may not be the right approach for regional dispatch.

A second operations project initiated in 2021 was the First Key Stroke – First Unit Assigned project. This initiative focuses on reducing the time taken from recording information in ambulance information systems to dispatch of an ambulance. An example is reducing the number of checks regarding a Triple zero caller's location. Call Takers will be able to double check address details with the caller after referring the job on, thereby saving potentially vital seconds before the ambulance can be dispatched.





Severe Weather Event Response

The recent NSW floods caused significant devastation and trauma, with many of our staff members directly impacted. The torrential rain, severe winds, and flash flooding left considerable destruction with the North Coast, Hunter-New England and Western Sydney the worst affected areas. The immediate response from NSW Ambulance was crucial, collaborative and well organised.

Through the Virtual Clinical Care Centre (VCCC), NSW Ambulance provided virtual clinical support to patients while they were waiting to be rescued as well as providing thorough secondary triage and clinical assessment of patients. Clinicians within the VCCC provided life-saving and practical advice over the phone. They were able to maintain a connection and provide clinical support and advice at a time when patients were incredibly isolated.

“We were providing virtual care to patients who were totally isolated by flood waters and needed continuous assessment, evaluation and monitoring to make sure they got the care they needed within a reasonable timeframe”

“Some people we monitored over days just to make sure they could either get out and get their medication or figure out a way to get their medication to them, other people didn't have power, so we had to weigh up how important it was to call them every couple of hours. We had to assess what the risk versus benefit was for the frequency of checking in with people. It was definitely a challenging time.”

The key role of the VCCC during the floods was to be the communicator to the Control Centres and Aeromedical, as well as the State Emergency Service (SES) and the State Emergency Operations Centre (SEOC).

The deployment of Special Operations Teams, additional Aeromedical Operations assets and Extended Care Paramedics was part of the response to the North Coast. Paramedic crews were deployed by helicopter to the Northern NSW communities of Iluka, Casino, and Evans Head which were geographically isolated by road due to flooding, in order to maintain adequate service delivery to those areas.

The Special Operations Unit deployed Swiftwater Special Operations Paramedics throughout Metropolitan operations, Southern Sector, Hunter New England Sector and the North Coast Sector, as well as tactical advisors to the Northern & Southern Control Centres. NSW Ambulance also provided two specialist operators who formed part of a USAR (Urban Search & Rescue) taskforce in an operation on the North Coast.

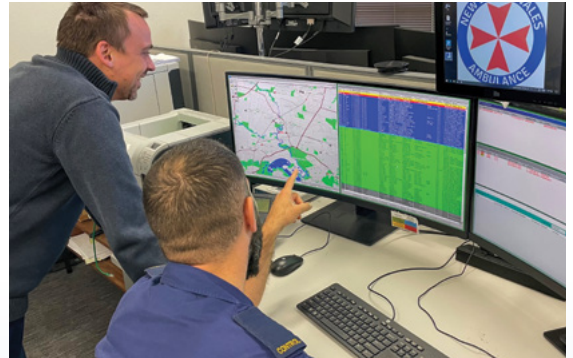
As the focus shifted towards recovery, the State Ambulance Recovery Team commenced work and Extended Care Paramedics (ECPs) were deployed to provide specialist paramedic care to flood-affected areas in Northern NSW. Running clinics in evacuation centres, ECP's worked closely with LHD's to support the community.





“NSW Ambulance was able to quickly mobilise a group of ECPs never sent on a deployment before. It was important that we were able to set up recovery during the response phase. The ECPs were an example of this, having provided much needed medical support to people in the community who may not have been able to access it elsewhere at the time.”

“If the VCCC identified a patient who could benefit from extended care, they can connect that patient with an ECP on the ground, helping to ensure patients receive the right care at the right time.”



Computer Aided Dispatch (CAD)

In May 2022 the Computer Aided Dispatch system utilised by NSW Ambulance Control Centres was upgraded. The upgrade also provided an upgrade to ProQA, the CAD mapping data, and the functionality of AML (Advanced Mobile Location). NSW Ambulance call takers are now utilising the most up to date medical triage system and are able to provide current medical advice to callers who ring Triple Zero “000”.

The Advanced Mobile Location (AML) technology that was implemented last year was enhanced with the new version of CAD. AML technology sends the GPS coordinates of a callers mobile phone through Triple Zero “000” along with the voice call. AML polygons were implemented in the upgrade that now allows call takers to visualise on the map the area that a caller is located within when ringing from an AML enabled mobile phone. It also provides call takers the ability to refresh the location of a caller whilst still on the phone. This is invaluable if the caller is moving as now call takers can be provided updates on the changing location making the process of locating patients more accurate.

Also included in this upgrade, to assist with locating our patients quicker was point of interest data. Point of interest data assists locate patients based on a location rather than a traditional street address. The point of interest data includes locations such as schools, restaurants, clubs, highway service centres, beaches, lakes, and emergency roadside telephones to name a few. Call takers are now able to search for these locations as opposed to just a street address when the caller can tell the call taker where they are but not the street address. This location then displays on the CAD map for the dispatcher ensuring that they are able to visualise the callers location when allocating resources to the incident.





Aeromedical Interagency Coordination Cell

While the NSW floods caused significant tragedy and devastation across the state, many positives can be drawn from NSW Ambulance’s response to the weather event. For example, during the floods, the role of the Aeromedical Interagency Coordination Cell was created and integrated into the State Emergency Operations Centre (SEOC) at Homebush. The role was crucial in Aeromedical Operations’ response to the floods, and that

is expected to continue to be the case for future inter-agency emergency responses.

The Aeromedical Interagency Coordination Cell’s responsibilities included:

- Collaboration as part of an inter-agency response
- Situational awareness and coordination of the aviation responses of the Australian Defence Force, SES, Rural Fire Service and cross border support from Queensland
- Identifying where medical resources are required along with having oversight on rescues/evacuations, and ensuring the appropriate response
- Liaising with the Aeromedical Control Centre (ACC) Rapid Launch Trauma Coordinator (RLTC), Clinical Coordinator and State Retrieval Consultant to triage competing priorities
- Tracking of all aircraft carrying NSW Ambulance staff

“The role has allowed us to utilise our experience in helicopter operations to ensure the right assets go to the right place, at the right time and at the right risk level.”



Ambulance Public Health Unit (APHU) update

Established in response to the COVID-19 pandemic, the Ambulance Public Health Unit (APHU) is responsible for contact tracing staff who were infectious in the workplace and had contact with other staff. The APHU is supported by the Ministry of Health Public Health Response Branch and Local Health District Public Health Units and follows current Public Health Orders to provide streamlined, consistent, and up to date messaging and reporting relating to the pandemic. As well as delegated authority to direct NSW Ambulance staff into isolation where required, APHU has a dedicated staff welfare support team that contact and support staff in isolation to assist them to prepare for their return to work.

changes to the Public Health Order allowed household contacts and high-risk contacts to continue attending the workplace under risk management strategies, negating the need for immediate contact advising of isolation requirements. In the context of high case prevalence and the need to continue to ensure service delivery for the community, the APHU undertook risk assessments and provided risk management plans in line with guidelines provided by NSW Health to enable staff who would have previously been isolated to safely return to the workplace.

The emergence of omicron as the dominant COVID-19 variant resulted in NSW Health taking a pragmatic approach to risk assessment post known exposure to COVID-19. In April 2022

During 2021/22, the APHU worked closely with operational and other business units in NSW Ambulance to ensure situational awareness of staffing. Training for APHU staff is constant with the unit demonstrating the ability to pivot in line with the constant changes in managing cases and contacts to protect and support the safety of our workforce.

The Patient Experience

The Patient Experience

NSW Ambulance participates in the Council of Ambulance Authorities Patient Satisfaction Survey. In this survey patients or their carers, are asked to rank their satisfaction with ambulance services and treatment, including telephone assistance, timeliness of response, treatment received, competency of staff, journey comfort and overall satisfaction. These surveys are consistent across all of Australia and enable comparison across ambulance jurisdictions.

3,000 surveys were sent to those who had interacted with NSW Ambulance, and 632 responses were received.

- 97% of respondents were satisfied with their most recent experience using NSW Ambulance
- 65% of respondents stated that they were connected to a call taker quicker than they expected
- 93% of respondents found the call taker to be helpful and reassuring
- 61% of respondents felt the length of time they waited for the ambulance to arrive was quicker than they thought it would be

- 98% of respondents felt their overall experience of care was 'good' or 'very good'
- 93% of respondents reported having high levels of trust and confidence in the ambulance staff
- 93% of patients said they experienced a 'very clear' or 'clear' explanation of their condition and reasons for treatment
- 95% of respondents reported they were comfortable during their ambulance journey
- 95% of respondents felt they had enough time to discuss their concerns with the paramedics
- 93% of respondents were satisfied that the ambulance paramedics listened carefully to their views and concerns.

Understanding the experiences of our patients, their carers and their families is an important part of NSW Ambulance endeavouring to continually provide and improve clinical care.

Feedback from survey respondents

The below statements are taken directly from the feedback of those who completed the Patient Satisfaction Survey.

"I felt totally supported and at ease with the paramedics. They were both extremely kind, caring and attentive"

"As a person with a disability, they explained everything to me. They were wonderful and very caring in looking after me"

"I had a very bad viral infection as I have COPD, they arrived very quick with a First Responder who was outstanding in care he gave. Then the ambulance arrived with 2 great Paramedics and transported me to hospital"

"They made sure everyone kept calm and explained what they were doing"

"Prompt arrival and the feeling of relief when they came, they were confident and clear with their care"

"The paramedics made me feel at ease and explained and answered all questions"

"Good coordination between NSW Ambulance and Vitalcall. Great reassurance and support provided over the phone and in person. The paramedics were professional, friendly, experienced, capable, comforting, ensuring mum felt safe. The senior paramedic was a standout, quickly building rapport and trust and made family members feel included and heard"

"The Call Taker made me feel more relaxed. I could get advice of what to do whilst waiting for the Ambulance to arrive. I felt supported from the time the call was answered"

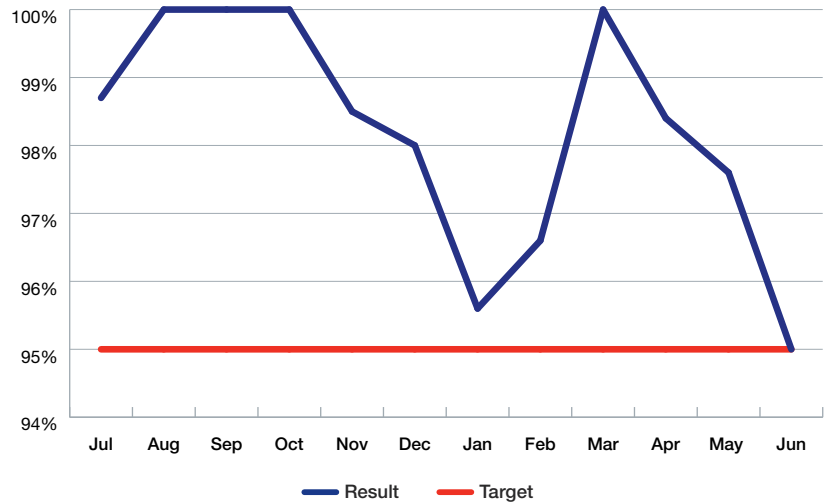


Clinical KPI results 2021-2022

Strategic Priority 2.4

Performance Domain
Timely emergency care
FY 21/22 target
95%

All cases where **STEMI** is confirmed and patient meets Pre-hospital Assessment for Primary Angioplasty (PAPA) criteria and who arrive at the designated cardiac catheterisation laboratory facility within 60 minutes.

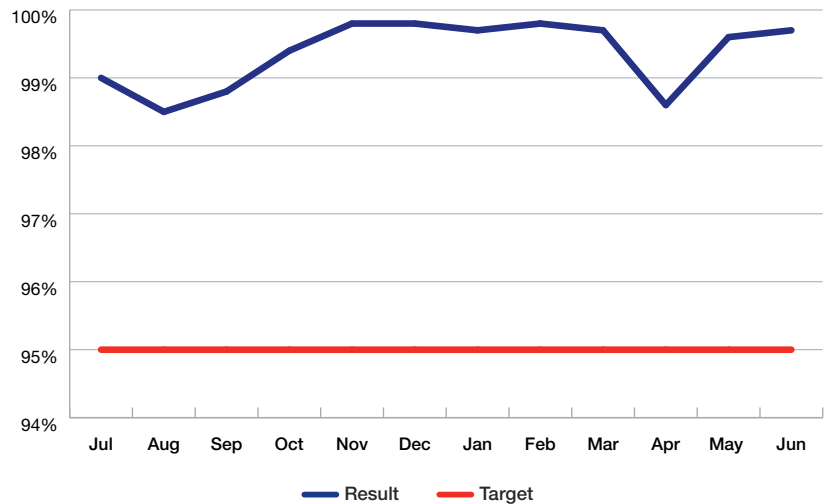


NSW Ambulance continues to perform strongly in Metropolitan STEMI patient management, with targets met across all quarters. NSW Ambulance continues to work in close collaboration with key stakeholders to facilitate the successful performance of the program. Areas for performance improvement are targeted with clinical education and support provided using a variety of methods.

Strategic Priority 2.4

Performance Domain
Timely emergency care
FY 21/22 target
95%

Major trauma patients managed as per protocol T1 by either direct transport to a Trauma Service OR with Aeromedical Retrieval Service notification

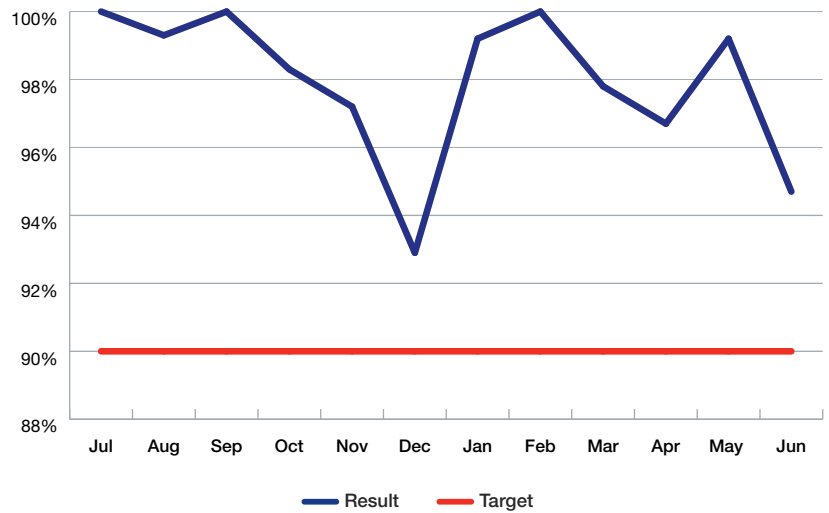


The pre-hospital phase forms an important component of the trauma model of care in NSW and includes the triage, system oversight, activation, management, and transport of major trauma patients across metropolitan, regional, and rural areas. The T1 KPI provides a snapshot of our performance in this area and ability to provide our patients with the right care, in the right place at the right time. The NSW Ambulance Trauma Team with the support of Trauma Services across NSW works to strengthen paramedics understanding and knowledge of the patient journey and in-hospital management / treatment requirements based on resource limitations / capabilities in their particular geographical working area. This provides further insight and rationale for paramedics in clinical decision making to improve trauma system notification, activation, resource response and destination decision making. With future staff enhancements and a mobile paramedic workforce the Trauma Team will continue this work into the future to ensure paramedics are provided with the information and support necessary to make sound clinical decisions in the best interests of their patients.

Note: 'Clinical incidents 28 days' has been replaced with the 'Clinical Incidents Management: Clinical Incidents with Harm Score 2, 3, 4 (Not SAER) completed within 45 days', and the 'RCAs' have been replaced with 'SAERs'.

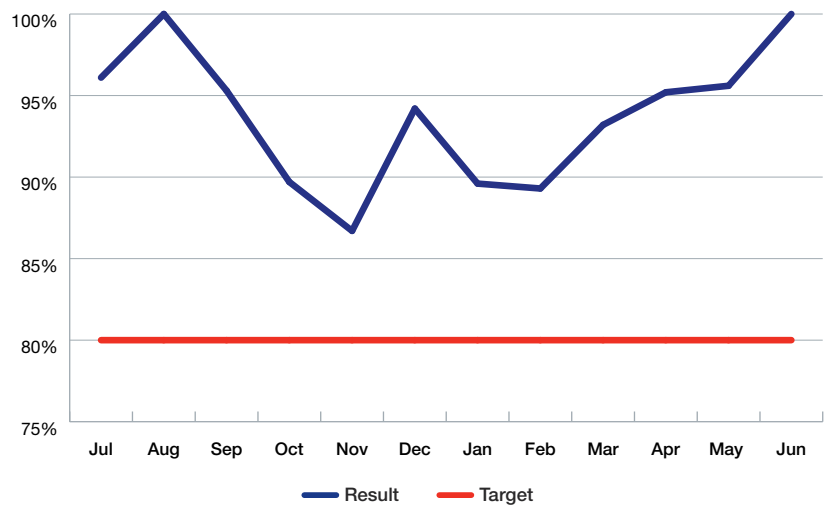
Strategic Priority
2.4
Performance Domain
Timely emergency care
FY 21/22 target
90%

Eligible **Stroke FAST** positive patients transported to a 24/7 Acute Thrombolytic Centre within the 4.5-hour clinical window from time of call for **Metropolitan Sydney**



Strategic Priority
2.4
Performance Domain
Timely emergency care
FY 21/22 target
80%

Eligible **Stroke FAST** positive patients transported to a 24/7 Acute Thrombolytic Centre or Acute Stroke Unit within the 4.5-hour clinical window from time of call for **Regional NSW**



Stroke response remains a key focus area for improvement and has continued high achievement. To support this, a series of presentations have been held across regional NSW, these have included information on the importance of accurate documentation, including recording of protocols, for patients presenting with a suspected stroke which is essential for accurate KPI reporting. In addition, these sessions have focused on correct transport decisions, this has been important in regional areas due to the implementation of the NSW Telestroke Service, a total of 23 Telestroke sites providing access to specialist stroke services have now been launched. In metropolitan NSW the launch of Hornsby Hospital as an Acute Thrombolytic Centre was supported by targeted communication and presentation to local staff to ensure continued strong performance.

Stage 1 of the implementation of an extended 24-hour clinical window for the management of eligible Stroke FAST positive patients has been successfully implemented. The implementation of a 24-hour clinical window for the management of eligible Stroke FAST positive patients across NSW is planned, pending the evaluation of Stage 1 and agreement from other agencies, following implementation it is anticipated there will be consultation with the MOH to update the Stroke KPIs to reflect this change in clinical practice.



Strategic Priority

2.4

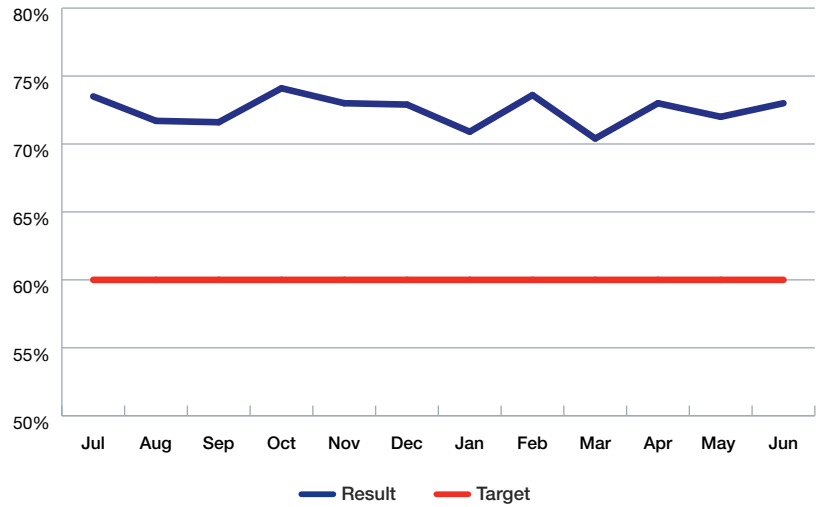
Performance Domain

Timely emergency care

FY 21/22 target

60%

Mental Health patients who have a mental health assessment completed and documented



Assessment of mental health status has been a high priority for 2021. To support improvement in this area, a number of key communications have been provided. This has included a series of Clinical Safety Notice (CSN) focused on mental health assessment and documentation, release of a video emphasising the importance of mental health assessment, and the key elements for consideration of patients at risk of harm and enhanced training program to be implemented with this upcoming cycle of mandatory clinical training.

The development and implementation of the new M/H clinical practice guidelines will enhance paramedic understanding and delivery of best practice mental care treatment and care to patients.

Strategic Priority

2.1

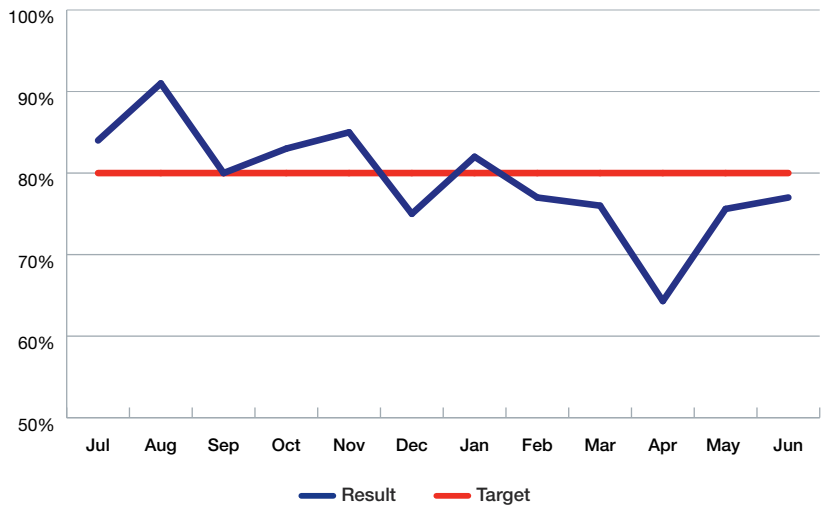
Performance Domain

High quality, safe care

FY 21/22 target

80%

Complaints Management: Complaints resolved within 35 days

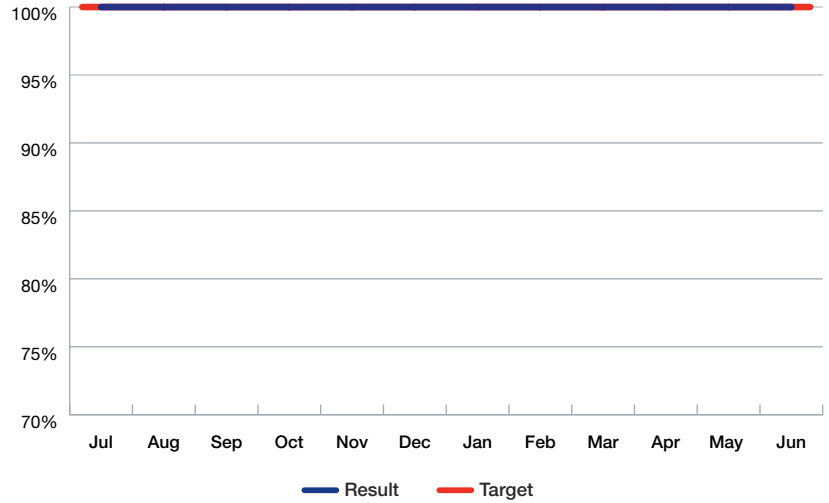


Complaints management during the last financial year have been impacted by a number of issues such as COVID-19 and the flood crisis across NSW. Both created a challenge with contacting consumers with them not being contactable or NSW Ambulance staff having less availability for resolving complaints.

The Clinical Governance team have worked over the last 12 months with the teams who manage the progression of the overall consumer feedback to strengthen processes to ensure feedback is provided in a considered and timely manner.

Strategic Priority
2.1
Performance Domain
High quality, safe care
FY 21/22 target
100%

Death Review:
 Witnessed deaths
 reviewed within 45 days

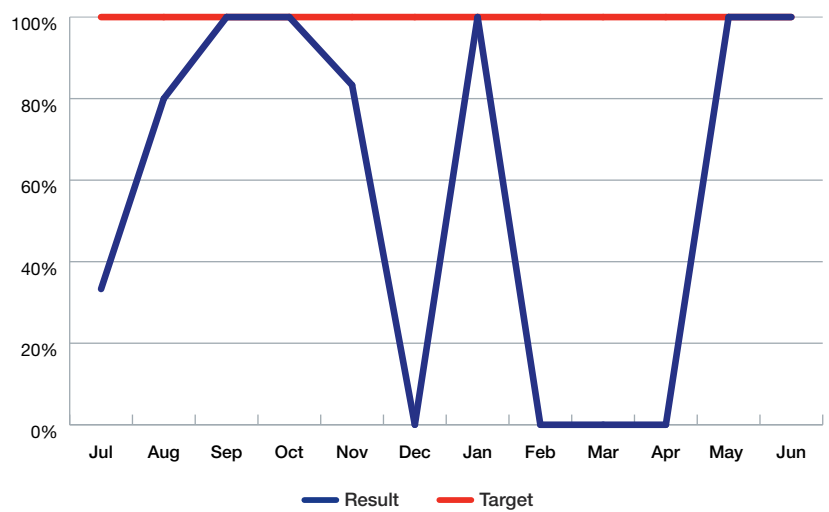


The Clinical Review Group (CRG) meets each fortnight and as a key component of their charter reviews all witnessed arrest cases. The Patient Safety team utilise the Qlikview database to identify eligible incidents and access clinical data, primarily through the electronic medical record, for review at the CRG.

Death review performance through 2021/22 was maintained at 100. The death review process ensures that where there is a gap in care identified that has contributed to an adverse outcome are escalated and managed through the incident management process.

Strategic Priority
2.1
Performance Domain
High quality, safe care
FY 21/22 target
100%

Serious Adverse Events
Reviews completed
 within 60 days



The NSW Health Incident Management Policy includes a performance metric of 60 days to complete Serious Adverse Event Reviews (SAER) investigations. The performance result for 2021/22 is decreased on previous years, and is attributed to a heightened number of SAERs aligned with an significant increase in operational demand.

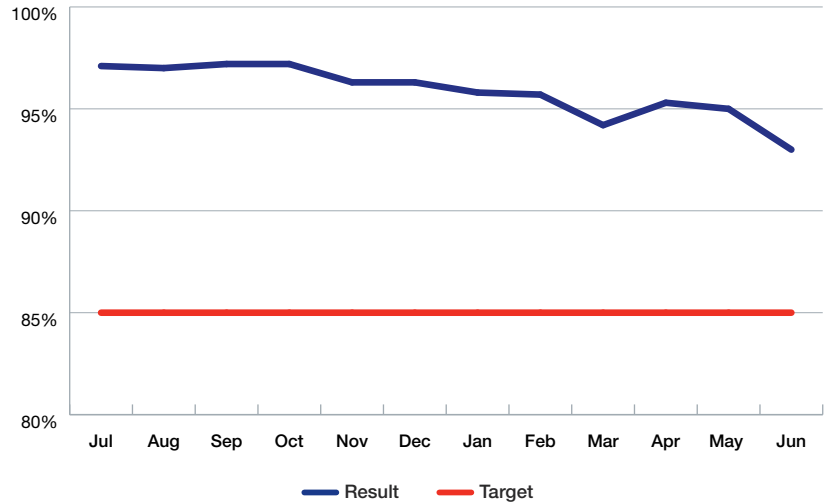
The Clinical Governance team has streamlined processes in the first quarter of 2022 to optimise the timeframe available and achieved improved results in the 2 months to close out the FY.



Strategic Priority 2.1

Performance Domain
High quality, safe care
FY 21/22 target
85%

Clinical Incidents Management: Clinical Incidents with Harm Score 2, 3, 4 (Not SAER) completed within 45 days



Clinical Governance monitors incidents and works closely with managers on a regular basis to support timely completion of incidents and consistently performs well against this KPI.

Priorities for 2022-23

Aboriginal Health

We will continue to improve engagement and partnering with the community to provide safe, culturally appropriate care and support equitable access to high quality clinical care for rural communities.

Consumer Engagement Strategy

NSW Ambulance is committed to developing a clear strategy to build consumer engagement across all levels of clinical care, design and improvement. To help support progress in this area, we have engaged a consultant to advise and assist in developing a strategy for building a robust system of engagement with consumers and inform the key aspects to be incorporated into this strategy.

Virtual Care Strategy

Building on the Virtual Clinical Care Centre established in the 21/22 financial year, the Virtual Care Strategy will continue to develop and expand this service to support clinical oversight, care and decision making within the control centres, and provide a clinical hub for clinicians on road when providing complex clinical treatment to patients in real time.

Referral Pathways

An integral component of the Virtual Care Strategy is the establishment of referral pathways to support access to the right care at the time it is needed in an informed manner that meets the needs of patients and reduces the impacts on health services in transporting patients to hospital, where care in a different setting is appropriate. A range of different referral pathways will be established in consultation and collaboration with Local Health Districts and other health services aligned with local services that are available, to enable us to better support patients accessing the most appropriate care for their needs.

Strengthening Safety and Quality

A Clinical Governance development plan has been established to support strengthening of systems and processes. Development and implementation of this plan with a particular focus on building quality improvement across all areas, increased measurement of clinical outcomes and robust reporting processes will support high quality and safe clinical systems with a view for obtaining accreditation to the National Safety and Quality Standards for acute health services in the future.

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