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November 2021

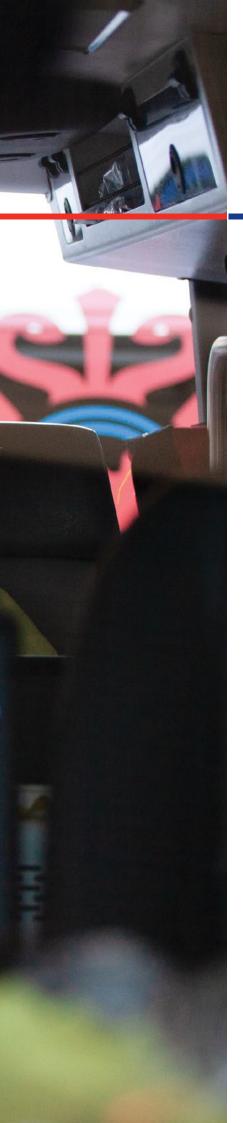


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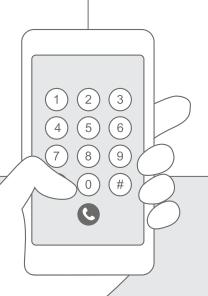


2020-21 Snapshot

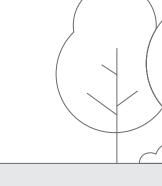
1,060,402

Triple Zero (000) calls received

A Triple Zero (000) call every 29.74 Seconds







990,282

Incidents generated

436,310

Emergency (Priority 1) Incidents

1,265,142

Ambulance responses



Aeromedical responses by helicopter, fixed wing and road retrieval



Number of incidents attended by Clinical Volunteers



A response to an incident every

24.93 seconds

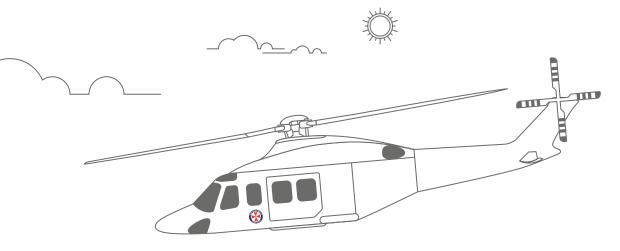
8.18 minutes

Priority 1A median response time

12.47 minutes

Priority 1 median response time





Aeromedical Operations

34

Out of hospital blood transfusion cases completed

94.0%

Rapid Sequence Intubation cases without complication

93.9%

First-look laryngoscopy success rate





1,216

ST-Elevation Myocardial Infarction (STEMI) cases attended

798

Adult cardiac arrests

504

Clinical Review Group reviewed cases (including 324 witnessed cardiac arrests)

1,251

Palliative care patients who were not transported to hospital



8,604

Major trauma cases attended

3,481

Cases referred to and managed by My Emergency Doctor (MED) via the Secondary Triage program

85%

Extended Care Paramedic referrals to MED as an alternate referral destination that achieved treatment insitu (since introduction of the pathway in November 2020)



Staff members successfully fit tested



3,040

Staff members fully vaccinated against COVID-19



Statement on Safety and Quality



Adjunct Associate Professor Dominic Morgan ASM

Chief Executive, NSW Ambulance

Chief Executive

Providing quality clinical care to patients in the face of an ever-changing health landscape has undoubtedly remained our key priority throughout 2020 and 2021. Across all areas of our organisation, we have increased efforts to improve patient safety and better support our staff in providing care to the community of NSW.

The NSW Ambulance Safety & Quality Account 2020-21 reflects our achievements across these areas and details areas of future focus.

While COVID-19, in particular the Delta variant, has brought unprecedented challenges to NSW Ambulance, it has also provided an extraordinary opportunity to build on many of the initiatives we developed during the start of the pandemic, and review and refine our quality and safety processes and procedures in order to remain at the forefront of thinking and practice.

Our dedicated internal support teams have been indispensable to ensuring clinician and patient safety this year. In particular, the Ambulance Public Health Unit has been an essential element in keeping our staff and our patients as safe as possible, by minimising the risk of transmission and maximising staff safety following any COVID exposure.

Innovation in education and equipment has also been key to improving clinical quality and safety. For example, we rolled out new Intensive Care Vehicles and developed an updated skills course for Intensive Care Paramedics, which provided our clinicians with the knowledge, skills and equipment needed to improve their safety as well as patient safety in the COVID-19 environment and beyond.

The highly infectious nature of the Delta variant has also brought about significant changes around safe working principles and respiratory protection. All clinicians are now required to adhere to strict procedures, including the use of PPE, to prevent and minimise the spread of COVID-19.

Of particular note was the roll-out of the NSW Ambulance Respirator Fit Testing (RFT) program, which was set up in response to the Clinical Excellence Commission (CEC) release of Respiratory Protection in Healthcare and directed all

health services to implement fit testing for clinicians in high-risk environments.

The COVID-19 Vaccination Program was also one of the most critical initiatives of the year, as it has helped ensure that all staff and the community are afforded the best protection against COVID-19.

Throughout 2020-21, NSW Ambulance has remained committed to providing the best possible care to mental health patients. Through collaborative and co-designed projects such as the Mental Health, Ambulance and Police Project (MHAPP), which built upon the already successful Police, Ambulance, Clinical, Early, Response (PACER) work across metropolitan regions, our clinicians have been able to provide holistic assessment of the individual patient needs, empowering the patient in their own health care decisions and ensuring treatment in alignment with best practice.

Improving the survival rate of out-of-hospital cardiac arrest has also remained a priority, and the Clinical Systems team has been working towards replacing the current cardiac monitor fleet, with the next generation options set to greatly improve safety and quality.

Looking to the future, we will continue to focus on providing patients with the right care at the right time in the right place. Of particular significance will be the introduction of a dedicated Virtual Clinical Care Centre (VCCC) and the developing of 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.

With a clinical credentialing framework set to be established in 2022, we will ensure all NSW Ambulance health practitioners are appropriately skilled, qualified and competent to deliver health services to the NSW community.

I am incredibly proud of our unwavering commitment to clinical quality and staff safety during these extraordinary times and I am confident that this commitment will continue to strengthen the quality care we provide to patients now and into the future.

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 2020 to 30 June 2021



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 the Organisation 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).

The Organisation has:

- Clear lines of accountability for clinical care which are regularly communicated to clinical staff
 and to staff who provide direct support to them. The authority of facility/network general
 managers is also clearly understood.
- Effective forums in place to facilitate the involvement of clinicians and other health staff in decision making at all levels of the organisation.
- A systematic process for the identification and management of clinical incidents and minimisation of risks to the organisation.
- An effective complaint management system for the organisation and complaint information is used to improve patient care.
- An Aboriginal Health Advisory Committee with clear lines of accountability for clinical services delivered to Aboriginal people.
- Adopted the Decision Making Framework for NSW Health Aboriginal Health Practitioners Undertaking Clinical Activities to ensure that Aboriginal Health Practitioners are trained, competent, ready and supported to undertake clinical activities.
- Achieved appropriate accreditation of healthcare facilities and their services.

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 the Organisation.

Health services are required to be accredited to the National Safety and Quality Health Service (NSQHS) Standards under the Australian Health Service Safety and Quality Accreditation Scheme (the AHSSQA Scheme).

The Organisation intends to submit an attestation statement confirming compliance with the NSQHS Standards for the 2020/21 financial year to their accrediting agency by 30 September 2021. The Organisation submitted an attestation statement to the accrediting agency for the 2019/20 financial year.

2020-21 Corporate Governance Attestation Statement | Page 3



Vision and Strategic Plan 2021-26

The NSW Ambulance Vision and Strategic Plan was released in April 2021. This Plan is the NSW Ambulance roadmap to developing our organisation while providing excellence in care over the next five years and feeds into the NSW Government Future Health Strategy and NSW Premier's Priorities. The plan identifies four key priority areas for NSW Ambulance:

- 1. Our Organisation
- 2. Our Services
- 3. Our Stakeholders and Partners
- 4. Our Resources

The Plan clearly describes the future for NSW Ambulance as dynamic organisation providing excellence in out of hospital health care. The Plan encompasses holistic performance measures beyond response time that include staff wellbeing and engagement, diversity, collaboration across the health system, data and evidence based decision making, investment in infrastructure and continuous improvement.

There is a strong focus on NSW Ambulance performance in clinical service provision with explicit commitment to high-quality patient-centred care. Delivering the objectives in this Plan will ensure significant developments that are focused on improving patient safety while delivering the highest quality care.

The priorities outlined in this account are aligned to the strategic priorities highlighted in this Plan.







Priority 1: COVID-19: the new normal?

The early 2020 response to COVID-19 was included in the 2019-20 Safety and Quality Account. Building on many of these initiatives ensured NSW Ambulance was prepared and well placed in responding to the 2021 COVID Delta variant, including the longest serving (rotating) Incident Management Team (IMT) in NSW Ambulance history.

Intensive Care Paramedic Updates

Driven by the COVID-19 pandemic, NSW Ambulance developed an updated skills course for Intensive Care Paramedics (ICPs). The course was developed and facilitated by 20 NSW Ambulance Educators, 14 Aeromedical Doctors and 4 Paramedics and included operation of the equipment that will be included in the new intensive care vehicles being rolled out (see page 24).

The COVID-19 ICP Update Courses ran from July 2020 to June 2021, with 737 Intensive Care Paramedics from across the state attending the one week course in Sydney.

During the course ICPs were involved in sessions on human factors mentoring and leadership, along with covering skills and new equipment including;

- EZ-IO intraosseous vascular access system
 - McGrath video laryngoscope and advanced airway management
- LUCAS mechanical CPR device
- Lifepak 15 full specification
- Agilla syringe driver
- Transcutaneous Pacing
- C-PAP device

The training and education provided by the course along with the new skills and updated equipment provides ICPs with the knowledge and skills needed to improve their safety and patient safety in the COVID-19 environment and beyond. The ongoing collaboration with peers also creates a greater confidence in practice which is reflected in increased clinical quality.



Ambulance-Public Health Unit

In the 2019-20 Safety and Quality Account, NSW Ambulance highlighted the newly established Ambulance-Public Health Unit (A-PHU), responsible for ensuring the safety of NSW Ambulance staff, their families and patients, through the ongoing screening of interactions with COVID positive patients and staff.

The operations of the A-PHU are critical, particularly in the context of the Delta strain, with NSW Ambulance peaking at over 250 positive patient attendances per day, each of which requires the relevant NSW Ambulance staff to be screened by the A-PHU to determine their level of contact and potential exposure risk, and be directed to isolation and/or testing as appropriate. In 2020-21, NSW Ambulance attended at least 73 confirmed positive patients, resulting in over 174 staff interactions with confirmed positive patients.

Through 2020-21, the A-PHU has:

- Worked closely with other NSW Ambulance business units, Local Health District Public Health Units and the NSW Health Public Health Response Branch to ensure NSW Ambulance is compliant with Public Health Order requirements
- Provided advice and assistance in informing and implementing best practice PPE guidelines and protocols
- Developed more robust data analysis to better identify NSW Ambulance clinician interactions with COVID-19 positive patients
- Increased the efficiency of contact tracing for any staff member who returns a positive result.
- Introduced a new mechanism for reporting and recording COVID-19 test results, which facilitates notification where a breach may have occurred to ensure expedient follow up and completion of a risk assessment
- Improved processes to ensure maximum efficiency, accuracy and consistency in performing risk assessments and communication of the results and actions



With these efforts, the A-PHU has been an essential element in reducing the risk of exposure and acquisition for our clinicians, keeping our staff and our patients as safe as possible, minimising the risk of transmission and maximising staff safety following any exposure. These efforts were critical in preparing NSW Ambulance for the significant increase in community cases and exposures associated with the Delta variant from July 2021 onwards.



Employee Connect

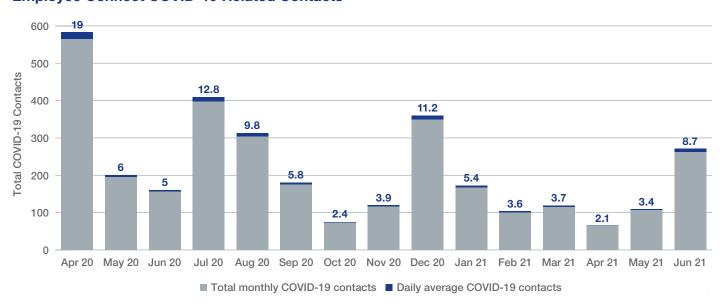
Originally introduced to centralise employee-centric case management, People & Culture queries and provide a single point of contact for employees who feel they are 'falling through the cracks', Employee Connect has adapted to become a critical element in ensuring staff can receive current and consistent information related to COVID-19. In addition to 'business as usual', Employee Connect has operated the COVID-19 Hotline which has been available 24/7 for most of 2020 and 2021.

Establishing the 24/7 advice line allows NSW Ambulance staff to have ready access to consistent

information, with the most common queries relating to hotspots, potential exposures, test results and isolation, advice regarding household members, vaccination, special leave entitlements and PPE.

Working with the A-PHU and the IMT, Employee Connect is one of the foremost sources of information for NSW Ambulance staff, playing a key role in maintaining their safety. Staff were familiar with contacting Employee Connect for COVID-19 related queries through the pandemic in 20-21, ensuring this process was already established for queries during the Delta variant in 21-22.

Employee Connect COVID-19 Related Contacts





Collaboration at the borders

Throughout COVID-19 a number of Public Health Orders were issued that restricted movements across state borders, creating serious challenges for NSW Ambulance. There were complications for staff residing outside of NSW attending work or returning home, and difficulties when transporting patients across a state border. Under normal circumstances, this would be business-as-usual. However, in the unique environment created by COVID-19 NSW Ambulance worked collaboratively to create new arrangements to ensure patients that required care across borders received appropriate treatment.

Just some of the examples include:

■ The Northern NSW Sector collaborated with the Queensland Ambulance Service (QAS) and agreed for a QAS crew to be housed at Kingscliff station on the NSW side of the border. The QAS crew was responsible for completing non-emergency patient interfacility transport to the QLD border, where another QAS crew would complete the transport within QLD

- Our Western Sector collaborated with Mildura Base Hospital at the Victoria border, establishing new escalation paths including after hours. This enabled NSW Ambulance staff to have accurate and up to date information to enable safe and effective transfer of care for patients. Mildura Base Hospital also shared important relevant policies and guidelines with NSW Ambulance for distribution to staff in the area.
- In the Murrumbidgee, Southern Sector participated in collaborative meetings with Health and Police representatives to expedite cross-border transports, ensuring patients could be transported to hospital without delay. There was also an agreement whereby essential staff could remain working despite hard border closures, and planning for any situation where a critical patient from NSW required transport to Melbourne for treatment.

These ongoing collaborations across ensured that patients who required cross-border movements received the most appropriate care in the best possible timeframe. These efforts also helped support appropriate patient flow and referral networks functioning effectively to ensure health services maintained the capacity to provide patients with the right care for their needs.





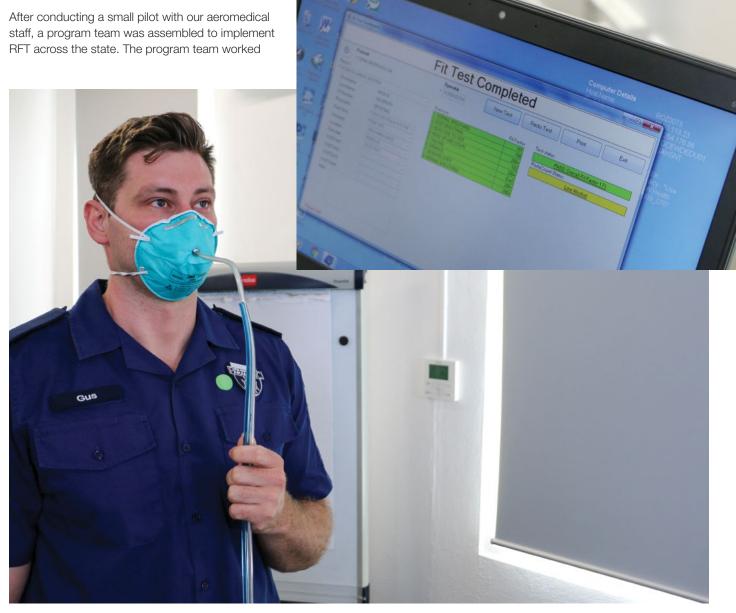
Respirator Fit Testing

The COVID-19 pandemic and the highly infectious nature of the virus predominantly via close contact transmissions, brought about significant changes around safe working principles and respiratory protection. All clinicians are now required to adhere to strict procedures, including the use of PPE, to prevent and minimise the spread of COVID-19.

The NSW Ambulance Respirator Fit Testing (RFT) program was set up in response to the Clinical Excellence Commission (CEC) release of Respiratory Protection in Healthcare, which directed all health services to implement fit testing for clinicians in high-risk environments. All NSW Ambulance clinicians required fit testing to determine their best-fit P2/N95 respirator to ensure optimal protection for staff and patients.

with NSW Ambulance Clinical Operations, qualified service providers and Local Health Districts to prepare and schedule staff for their tests. The team also liaised closely with the CEC to update guidelines, and with HealthShare NSW to maintain and manage respirator supply.

By 30 June 2021, NSW Ambulance had conducted fit testing and identified the best fit respirator for 2,561 staff. The program is continuing through 21-22 to complete RFT for all NSW Ambulance clinicians. It is anticipated that RFT will be embedded into a business-as-usual model in 2022 with staff completing their RFT when attending mandatory clinical training clinics.





COVID-19 Vaccination Program

Working with all NSW Health services in response to the Commonwealth-directed vaccination roll-out, NSW Ambulance rapidly established the COVID-19 Vaccination Program. As essential emergency health workers, rapid implementation of a vaccination program would provide significant safety benefits to NSW Ambulance staff and to their patients, reducing the potential acquisition by NSW Ambulance staff, and therefore reduced subsequent transmission to other patients and health workers. The implementation team included operational managers who were required to engage with stakeholders including the Ministry of Health, the State Health Emergency Operations Centre, Local Health Districts (LHDs), HealthShare, Careflight and the Royal Flying Doctor Service and our clinical volunteers.

Initially all frontline staff who requested vaccination were allocated appointments in consultation with LHD-led vaccination hubs. The project team quickly became subject matter experts and commenced

planning and logistics to ensure all eligible NSW Ambulance employees were able to access the vaccination. Implementation of this program was a significant challenge, in particular ensuring response capacity was maintained while staff were "offline" to receive their vaccination, and scheduling second vaccinations working with vaccine administration timelines, staff rosters and vaccine hub capacity.

This was one of the most critical initiatives of NSW Ambulance, to ensure that all staff and the community are afforded the best protection against COVID-19, in particular protecting vulnerable members of the community.

By 30 June 2021, 3,517 staff had received their first dose of the vaccine and 3,040 had received both doses. The vaccination program for all staff continued into 2021-22, providing increased protection against the Delta variant in the height of the pandemic.

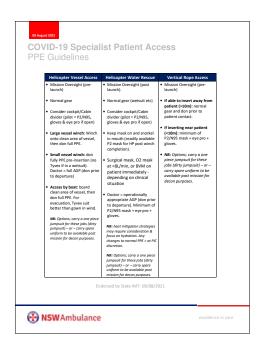
RPA Hospital

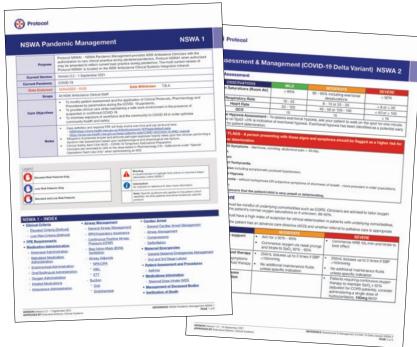


Specialist patient access advice during COVID-19

Throughout COVID-19 NSW Ambulance has adapted to maintain and improve staff safety, including through robust advice on the use of PPE. This is a particular challenge for NSW Ambulance who may respond to patients in situations with difficult access, requiring helicopter and or special operations teams. Some examples might include a patient stuck on the side of a cliff, on a boat at sea or trapped at the bottom of a canyon.

NSW Ambulance Helicopter Operations undertook a review of directives and PPE use to devise ways of practically protecting staff in these very different settings. COVID-19 Specialist Patient Access PPE Guidelines were developed and distributed to aeromedical staff. Correct use of PPE is a critical effort in ensuring the safety of staff and patients. This advice will be reviewed quarterly or ad hoc if specific feedback is received after a mission.





Pandemic Management Protocol

Protocol NSWA1 – NSWA Pandemic Management was introduced in response to the declared COVID-19 pandemic to provide NSW Ambulance clinicians with specific clinical practice guidance during declared pandemics. The protocol provided up to date clinical guidance on aerosol generating procedures and medication administration thereby maintaining a safe work environment and minimising the potential exposure of staff, patients and bystanders. The introduction of this protocol in 2020 provided clinicians with a single point of reference of information that superseded specific existing protocols and procedures.

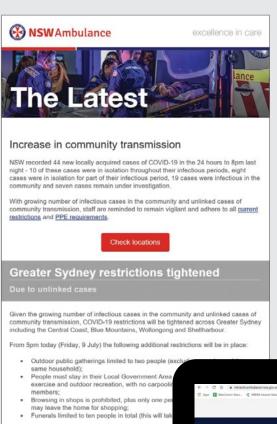
In response to feedback from staff and the increasing incidence of COVID-19 cases in the community as a result of the then-emerging Delta Variant, NSW Ambulance introduced protocol NSWA2 – Assessment and Management (COVID-19 Delta Variant).

This protocol adapted information from the Agency for Clinical Innovation (ACI) on caring for patients with COVID-19 in the community and the emergency department assessment and management of COVID-19 in adults. In addition to the infectious disease risk mitigation in protocol NSWA1, NSWA2 provided specific clinical guidance for NSW Ambulance clinicians who were attending these patients in the community. Introduction of this protocol aimed to optimise the assessment and management of these patients and improve guidance for NSW Ambulance clinicians where the patient may not require transport to hospital, allowing the patient to remain in their home (where clinically appropriate).

The developed protocol was reviewed by the Expert Reference Group and endorsed by the Clinical Advisory Committee, releasing the final version in September 2021, improving NSW Ambulance clinical care for patients with the COVID-19 Delta Variant.

COVID-19 Communications

The NSW Ambulance internal communications strategy for COVID-19 has been focused on being agile in responding to evolving information and providing staff with timely, robust and meaningful information.



Read more

Restrictions in regional NSW will remain unchanged.





Through 20-21 there were:

47,412 page views of the COVID-19 staff portal

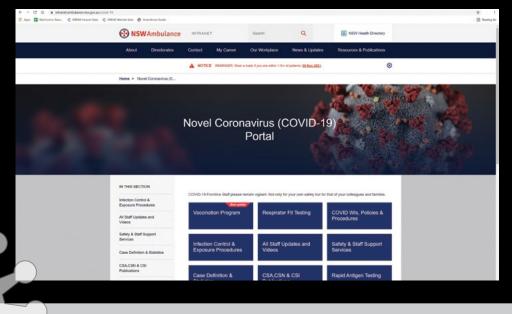
4,975 downloads of documents from the COVID-19 staff portal

3,404 page views of the vaccination program page

1,348 page views of the Respirator Fit Testing page

6,811 page views of the Infection Control and Exposure Procedures page

2,163 downloads of "The Latest"





Priority 2: Aboriginal Health

Aboriginal Women's Health

From paramedics who were involved in the inaugural NSW Aboriginal Women's Rugby League Knockout, to a local frontline manager who advocates for birthing on Country, we pay tribute to our staff who are making a positive influence on Aboriginal women's health.

Game on for Aboriginal Women's health

Eighteen women's rugby teams travelled from around the state to compete at the inaugural NSW Aboriginal Women's Rugby League Knockout in Sydney in February 2021. Station Officer Shireen Doyle and paramedics Matthew Wood, Jake La Ferla and Brad Wright were on hand to provide ambulance services during the event. The game was on to support Aboriginal women's health and our paramedics were there, ready to contribute.

Rondelle Ryan, from the Blacktown Red Belly Warriors Rugby League Football Club which arranged the Knockout, shared some history of the event. "My grandmother established this club 30 years ago to bring the Aboriginal community together and showcase our talent playing the game we love. We have prided ourselves in not only fostering our players with a sense of self respect, confidence, pride and honour that is demonstrable on the field, but also with the awareness of each individual's significance within our community", she said.

Our Aboriginal paramedics spent time connecting with players, their families, Elders and the wider community and talked about sport, health and wellness, culture and work opportunities. They were able to build on community relationships in a relaxed setting, which allowed time for people to learn more about health care and job opportunities. In doing so, they were building greater trust and confidence within the community about using our services.

Our paramedics were also able to convey that culturally safe and responsive health care is available, especially during on-site patient care. Further, they carried the message of reconciliation on behalf of the NSW Ambulance and provided themselves as positive role models to community.

"I enjoyed chatting to the younger players, making them aware of what we do and encouraging them to join the ambulance service," Shireen said. "We were able to share stories about our culture and the importance of inclusion, representing our mob in our workplaces as well as our communities, and recognising the importance of coming together and supporting each other in all walks of life."

"We were located next to the Elders tent, which gave us the chance to meet more people," said Brad. "I met a patient who I treated last week and it was good to reconnect in a more relaxed setting. We also spent time with the kids, helping them feel comfortable about meeting a paramedic and being inside an ambulance."

Arranging for paramedics to attend community events like this is one way for us to encompass Aboriginal and Torres Strait Islander communities, families and patients in our vision of excellence in care.





Advocate for birthing on country

Chris Lahene, Duty Operations Manager for Illawarra Shoalhaven, is a strong advocate for birthing on Country for Aboriginal women. He has supported adoption of the practice which is currently being progressed by the Waminda South Coast Women's Health & Welfare Aboriginal Corporation in Nowra.

Birthing on Country, where Aboriginal women and their babies can access integrated, holistic and culturally appropriate care, has been acknowledged as a way to help offset the tragically high number of Aboriginal still births. Each year in Australia there are six stillbirths to every 1,000 births. However, among Aboriginal and Torres Strait Islander babies, the death toll is more than twice that, with 13 in every 1,000 births.

Building plans for Waminda to establish their Centre have included input from community and outside stakeholders, like the Local Health District and obstetricians. Chris explains his involvement in the project, "I was asked to represent NSW Ambulance and provide input on birthing room design for ambulance access. After being involved, I was then asked to be part of the clinical governance committee once the facilities are up and running," he said. "Working with Waminda and the local Aboriginal community to me means a brighter future and better birthing experience for Aboriginal women." Chris added.







IF YOU ARE UNSURE CALL 000



"Calling Triple Zero (000)" is an initiative that supports our Heart Yarns program, which provides education to Aboriginal communities about recognising and acting on the signs of cardiac arrest. Over time, Heart Yarns has expanded to include other key areas for Aboriginal health like stroke, diabetes, methamphetamine use, asthma and rheumatic heart disease. Following the growing success of Heart Yarns, it became evident to program manager Mark Trebley that printed information about calling an ambulance would be beneficial for the communities he visited.

Mark developed a series of flyers and posters about Calling Triple Zero (000), after consultation with Aboriginal communities about suitable content and design. There has been a positive response to the flyers and posters when they are provided to each community for display in places like Aboriginal community centres, medical services and local land council or corporation offices.

The posters and flyers aim to encourage Aboriginal people to call for an ambulance, as some can be reluctant to do so, thus supporting positive health outcomes through the attendance of paramedics when needed. Featured are simple steps to call Triple Zero and request an ambulance, including the questions you'd be asked by the call taker, and the importance of staying on the line. Included in the design is Aboriginal art work and a photo of one of our well known Aboriginal paramedics, to aid a better connection with Aboriginal audiences.





Aboriginal Workforce Enhancements for Better Health Outcomes

Our established targeted Aboriginal recruitment program has led to a number of Aboriginal people joining our workforce to become paramedics, consistent with the public sector focus on greater Aboriginal employment. Two initiatives have been further implemented, to meet the NSW Premier'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 in the public sector by December 2025.

Designated study groups were held for Aboriginal paramedics about the selection process for specialist and management roles like intensive care paramedic, extended care paramedic, rescue, special operations, station officer and duty operations manager. Study groups were held during targeted Aboriginal recruitment campaigns. For more senior roles like Zone Manager, Aboriginal candidates with high potential were provided with dedicated one-on-one support

by the Diversity & Inclusion team during the application and selection process.

This stepped recruitment process from paramedic into more advanced roles is aimed at growing this portion of our workforce. It helps alleviate the socio-economic disadvantages faced by Aboriginal people when they attempt to advance their careers, and makes the most of the positive correlation between health, wellbeing and longevity and having a higher income. The employment of Aboriginal paramedics to these roles will also provide Aboriginal patients with better access to advanced clinical care, and a greater awareness and informed decision-making at management level about Aboriginal health care.

To date, the study groups have had a success rate of up to 80 per cent of Aboriginal candidates being shortlisted to attend a recruitment assessment centre which includes interview. For some roles, half to all shortlisted Aboriginal candidates were assessed as suitable and appointed to a position.



Priority 3: Regional Care

CENTRAL WEST NSW ZONE 2

Rural Ambulance Infrastructure Reconfiguration

The Rural Ambulance Infrastructure
Reconfiguration (RAIR) program is a major
capital investment program into regional NSW
Ambulance. Stage 1 of the program was
announced in the 15-16 budget with a \$122.1
million investment. A further \$10 million was
announced in 20-21 to include the Iluka location.

The RAIR program builds new ambulance stations and rebuilds or refurbishes existing stations. The program enhances the capacity of NSW Ambulance in its important role in providing high quality clinical care, medical retrieval services, and urgent emergency care.

Building and staffing new locations provides additional services to regional and rural communities. Introducing new locations means that NSW Ambulance has increased capacity for responding to emergencies, and may reduce the time for our staff to respond to an incident due to the reduced travel time and distance from the newly built location. This also reduces the likelihood of an existing station responding an ambulance to an incident that may be a significnat distance away, allowing them to maintaining ambulance coverage in their local community.

New and rebuilt or refurbished RAIR stations are purpose built for ambulance services, with the required capacity for staff and fleet. This includes dedicated spaces for training, administration, stores and medications.

In 2020 and 2021, stations built as part of the RAIR program were officially opened at Grenfell, Cowra, Goulburn, Birmingham Gardens and Cootamundra. A brand new station at Sawtell was also completed and is now operational, providing an additional service for that area. The 24th site for the RAIR program has commenced construction at Iluka, with completion expected early 2022.



In November 2020, NSW Minister for Health Brad Hazzard announced a \$100 million commitment to RAIR Stage 2

In November 2020, NSW Minister for Health Brad
Hazzard announced a \$100 million commitment to
RAIR Stage 2, which consists of 5 new stations, 6
rebuilds and 19 minor works refurbishment.



NEW ENGLAND ZONE

Regional SWEP Enhancements

In June 2018, the NSW Government budget announcement included a record investment in NSW Ambulance providing an unprecedented boost of 700 additional paramedics and 50 Control Centre staff over the next four years. These enhancements are being implemented through the State-Wide Enhancement Program (SWEP).

SWEP enhances the capacity of NSW Ambulance to provide emergency pre-hospital care to the local community, and also improves the wellbeing of local paramedics through a reduction of fatigue. The enhancements have enabled roster improvements to increase paramedics responding to patients whilst rostered on-duty rather than requiring the use of on-call, promoting an improved work/life balance, reducing fatigue and providing a service to the community with a significantly reduced requirement to work in addition to rostered hours.

Under the SWEP Program, over 20-21, regional NSW has received enhancements of 110 paramedics across 14 locations and 6 Extended Care Paramedics (ECPs). These enhancements have enabled the conversion of rosters that previously used on-call to rostering staff on-duty 24/7 at 10 locations, and enabled the reduction or removal of some on-call components at 12 locations.

At the conclusion of the program, regional paramedic enhancements will total an additional 409 paramedics across 51 locations and 7 ECPs.

(ILLAWARRA ZONE



Some examples of the performance benefits at stations that have had SWEP enhancements in 20-21 include:

- At Casino, the median response time for Priority 1 (emergency) cases reduced by 1.36 minutes (an 11.3% improvement) and for Priority 2 (urgent) cases the response time reduced by half a minute (a 2.8% improvement)
- At **Bermagui**, the median response time for Priority 1 cases reduced by 0.85 minutes (a 4.1% improvement) and for Priority 2 cases the median response time reduced by 2.14 minutes (an 8.8% improvement)

These metrics show that in addition to the benefits for staff, SWEP is enabling improved performance in responding to the needs of the community.



NSW Ambulance Assets and Infrastructure have been rolling out new intensive care ambulance vehicles through 2020-21. Of the 69 new vehicles, 50 of these were distributed to regional locations, with all being received by the end of September 2021. Consultations with paramedics held through 2020 were included in the 2021 build of these vehicles.

These vehicles are built with a design specific for the additional equipment utilised by Intensive Care Paramedics (ICPs):

- EZ-IO
- Video Laryngoscope
- Stretcher Wings
- Stretcher Bridge
- Stryker Lucas mCPR
- Solar Panel
- Lithium Battery

The equipment included in these builds is specific to ICP practice, allowing paramedics to treat patients as safely and efficiently as possible, particularly in regional locations where the nearest appropriate hospital may be hundreds of kilometers away. For example, inclusion of the Stryker Lucas mCPR device allows for safe, consistent, effective CPR to be performed while the vehicle is being driven, even over long distances. The COVID-19 ICP update course included the use of all equipment within these vehicles.



Spotlight on Clinical Volunteers

Clinical Volunteers (CVs) are an integral element in NSW Ambulance providing clinical services across the state, particularly in regional and rural communities. There are currently 57 authorised CV locations, which operate via models that have been developed to service the needs of their individual communities. Service models include Community First Responders, Community Emergency Response Teams and Volunteer Ambulance Officers. To ensure safe, high quality care is provided by CVs, they are supported by a clear framework of defined requirements and skills including:

- Comprehensive induction training taught by accredited instructors leading to the award of a nationally accredited qualification (HLT21015 Certificate II Medical Service First Response)
- A defined scope of clinical practice authorised by the Clinical Advisory Committee and supported by CV-specific protocols and procedures
- Mandatory monthly maintenance of skills training delivered by Registered Paramedics who mentor their individual groups
- Annual CPR and skills recertification
- Professional development opportunities including annual conferences and field exercises

Some of the specific achievements of the CV team already in 2021 include:

- Revision of the HLT21015 Certificate II Medical Service First Response training package and monthly maintenance of skills program to ensure the clinical training is contemporary and meets the needs of the community within the CV scope of practice
- Update to the Medication Management Operating Procedure to include restocking of medications to CVs by paramedics at transfer of care. This ensures CVs aren't left short of medication in the event there is another call before they can restock mediations
- Introduction of the T-POD pelvic stabilisation device to the CV scope of practice to provide circumferential compression for patients with suspected pelvic fracture, which may reduce blood loss and pain
- Commenced transition of the Nana Glen and Manildra units to the Community Emergency Response Teams model. This model will incorporate a purpose built NSW Ambulance response vehicle, with mobile data terminal and implementation of eMR





- Adaption of clinical practice, PPE utilisation and induction courses to ensure CV and patient safety through the COVID-19 pandemic
- Development of a tool that highlights CV availability and links with NSW Ambulance dispatch boards in Control Centres. This allows CVs to identify their availability and also enables Dispatchers to quickly identify which CVs are available to respond to an incident, making it easier for NSW Ambulance to provide care to the communities serviced by CVs
- 58 CV facilitators commenced their studies in either the upgrade of their existing Certificate IV Training & Assessment TAE40116 or complete the full certificate course to support CV education



Improving inter-hospital transfers across HNE

NSW Ambulance, Hunter New England LHD and Patient Transport Services (PTS) have established a "Ways of Working Group", aimed at improving inter-hospital transfers across HNE. Trialled from mid-2020, introducing daily communications sessions and formalising the process allows the services to work together to improve resource allocation. This ensures that all patients requiring a transfer between hospitals are transported in the clinically appropriate timeframe by the most appropriate service.

As part of this work, patients who can safely be transported by PTS are referred to PTS for transport, rather than utilising NSW Ambulance. This is particularly critical in rural areas where transporting a patient between hospitals may take several hours.

This is important in an effort to increase ambulance availability, allowing NSW Ambulance to focus on emergency calls from the community, and hospital transfers where the patient's condition is life threatening, likely to deteriorate or if the patient requires restraint.

To demonstrate the impact of this group, interhospital transports completed by NSW Ambulance at the request of PTS has reduced from 128 in September 2019 to 8 in September 2020. This has been maintained throughout the year with 13 transports conducted in September 2021.

NSW Ambulance, Hunter New England LHD and PTS are also currently updating their interhospital agency agreement for transports in the coming years, to assist with the flow of patients across HNE, improve links and investments with PTS and reduce the transfers completed by NSW Ambulance.

Retrieval Transfusion Protocol

NSW Ambulance medical retrieval teams routinely carry blood products. Developed by NSW Ambulance, the Retrieval Transfusion Protocol (RTP) is the first system of its kind in the world. Where a patient is critically bleeding and awaiting transport, RTP may be activated by NSW Ambulance teams on the scene, the retrieval team, by the Aeromedical Control Centre (ACC) or by referring hospitals. In 2020-21 RTP was activated 84 times.

The majority of RTP activations are for patients in rural NSW. Coordinated by the ACC, RTP increases blood product availability by using already existing blood bank resources to source blood products for these patients, and develop a plan for delivering to the retrieval team in real time. Blood products may then be delivered to the scene, to a hospital or en route to care. This enables large volume, mixed blood product transfusions to improve the haemodynamic state of the patient. There is statistical evidence that patients who receive RTP are delivered to hospital with an improved cardiovascular condition and there is sufficient evidence to suggest that patients who would not previously have survived have good outcomes.

In October 2020, an article was published in Transfusion, detailing a review of the first five years of RTP.





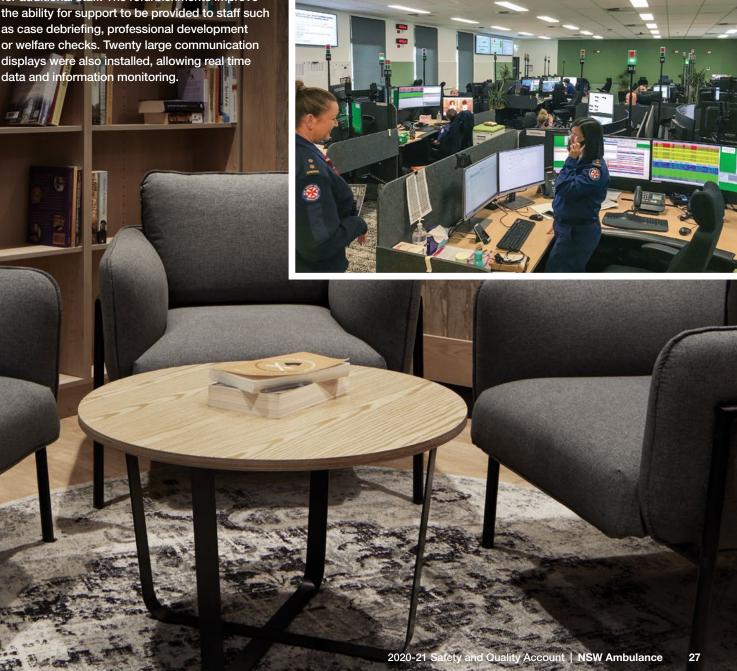
The Northern Control Centre (NCC) is one of five NSW Ambulance Control Centres. Located in Charlestown, the NCC receives calls from anywhere in the state and dispatches ambulances from the Hawkesbury river up to the QLD border. Almost 30% of the state's ambulance responses are coordinated by the NCC.

A series of improvements to the NCC has commenced through 2020-21.

Refurbishments have been completed that include increased training space, a quiet room, improved staff amenities, upgrades to the communications room, acoustic surface finishes, adjustable desk hardware and expansion space for additional staff. The refurbishments improve the ability for support to be provided to staff such as case debriefing, professional development or welfare checks. Twenty large communication displays were also installed, allowing real time data and information monitoring.

In November 2020, a staffing enhancement of 7FTE Duty Control Centre Officer positions allowed at least one additional DCCO to be rostered on 24/7. This increase allows the rostered Senior Control Centre Officer to provide more effective oversight, managing the pending workload and incident management.

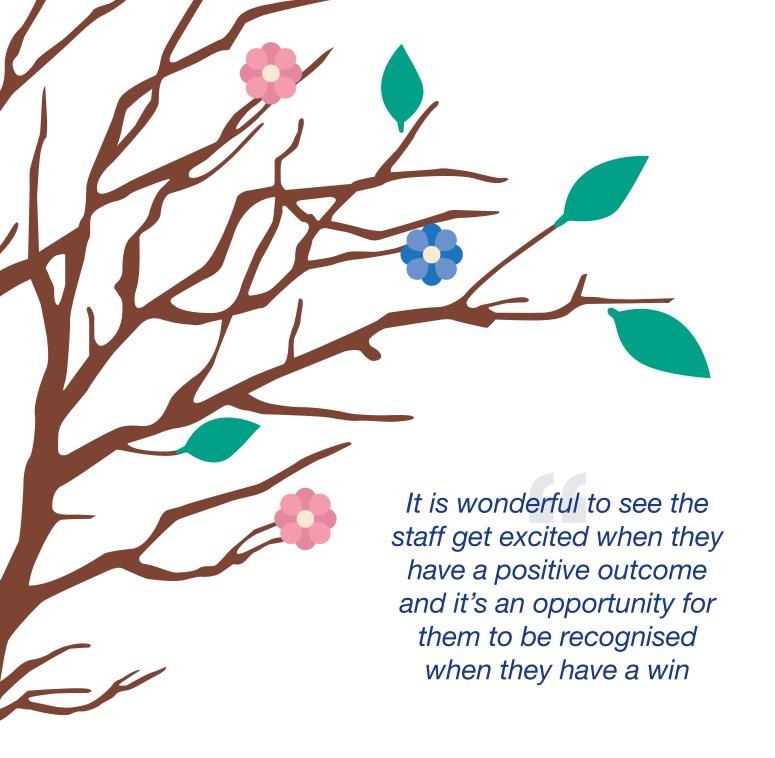
The refurbishments have also significantly increased workstation capacity, with an additional ten work consoles being installed in late 2021. This will increase the number of call takers that can be rostered at any one time in the NCC, to answer to emergency calls from the community.











Tree of Life in Western Control Centre

The Tree of Life was suggested by Kylie Andrews, Northern Control Centre Quality Support Coordinator, after observing a similar project in the Journal of Emergency Dispatch. She wanted to replicate this in the Western Control Centre (WCC) as a way of recognising the critical efforts of Call-Takers in supporting the delivery of high quality care to the community.

In 2020, the Tree of Life was added to WCC. Staff add a leaf to this tree (with their name and the date) when they successfully provide CPR instructions over the phone to the scene and the patient gains a return of spontaneous circulation (ROSC). Pink

or blue butterflies are added when instructions are provided to successfully assist in delivery of a baby.

This is an opportunity for staff to be recognised when they have provided exceptional care with a positive patient outcome. It creates conversation and positive reinforcement from other staff and management, and is an additional method of engaging staff in achieving better outcomes for patients and for themselves.

Between March 2020 and September 2021, ten leaves, six pink butterflies and nine blue butterflies have been added to the tree.



Priority 4: Mental Health

Mental Health, Ambulance and Police Project

The Mental Health, Ambulance and Police Project (MHAPP) is a collaborative project with representation from Illawarra and Shoalhaven LHD Mental Health Services, NSW Ambulance, NSW Police and a Lived Experience officer. It is a codesigned pilot project, funded by the NSW Ministry of Health, built upon the already successful PACER work across metropolitan regions.

Prior to MHAPP, a mental health patient would likely be transported to hospital by emergency services (at times against their will) due to the constraints of the treatment referral options.

From April 2020, through MHAPP, a Mental Health Clinical Nurse Consultant is available for eligible patients to collaborate with senior psychiatrists and paramedics to best treat and assist the patient. Interventions may include:

- On-site, phone or virtual assessment and advice
- De-escalation strategies
- Strategies for frequent users
- Advice on appropriate treatments
- Interventions for an acute stress response

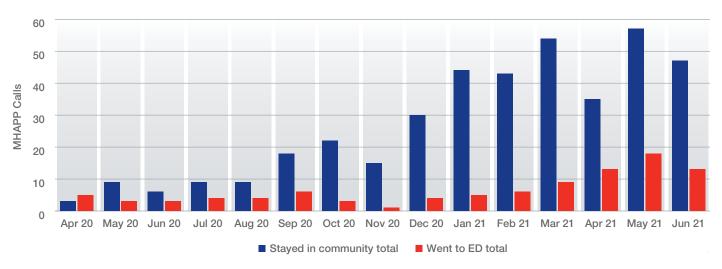
With the collaborative advice available, patients may be linked with community services and left safely at home, referred to a community mental health service or transported to hospital. MHAPP allows for a model of mental health service provision to our patients that includes holistic assessment of the individual patient needs, empowering the patient in their own health care decisions and ensuring treatment in alignment with best practice.



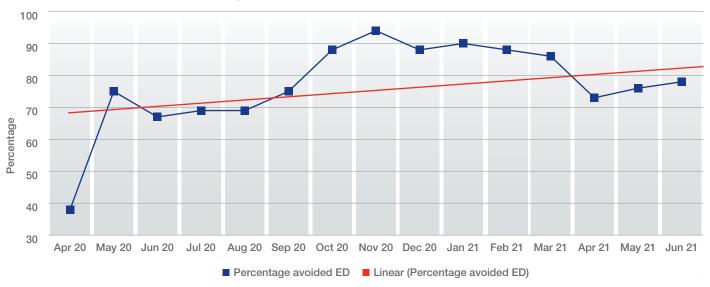
Paramedic experience with MHAPP

"We attended a highly agitated patient, with police already on scene. The police called ambulance expecting us to transport her to hospital, citing their concerns that because she was so agitated and potentially unpredictable...We called MHAPP. The CNC answered. The CNC very graciously started his shift early, and attended. The patient had experience with the CNC previously, and when we explained he was on his way, she calmed down immediately. The idea that we were on her side, didn't want to take her to hospital, and that with the CNC on the way, she didn't have to go to the ED worked better than any sedation/behavioural techniques I've ever seen."

MHAPP calls that stayed in the community







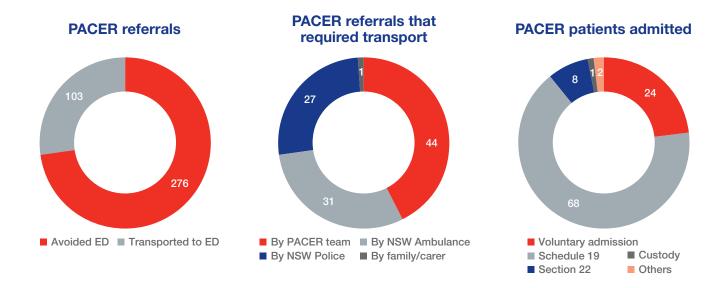
PACER (Police, Ambulance, Clinical, Early, Response)

PACER is a cross-agency program aimed at providing the best care in the most appropriate setting for individuals with mental health concerns such as suicidal ideation, welfare concerns, erratic behaviour, self-harm. The program is a collaboration involving Local Health Districts, NSW Police and NSW Ambulance.

The program provides a mental health clinician that is available to provide assessment and care for these individuals, either on scene or via telephone. This enables provision of the most appropriate care, with the PACER team having multiple referral pathways available such as referral to community and welfare services, or for psychiatric review, rather than being transported to the ED.

In March 2021, PACER was introduced to South Western Sydney with a dual referral pathway, meaning that both NSW Police and NSW Ambulance can refer to the PACER team. The PACER team worked out of Liverpool Superstation, accepting referrals from the Liverpool and Fairfield LGAs.

As a result of PACER, ED presentation by patients with NSW Ambulance or NSW Police decreased, and in some cases reduced the time required on scene so staff are able to be released to attend to other emergencies. Since March 2021, 379 cases have been referred to the PACER team, 276 of which avoided an ED presentation.





Call Taker Mental Health Course at induction

In response to the increase in calls from mental health patients over the years, NSW Ambulance Control Centre staff have been participating in new training – specific mental health and suicide awareness training for induction level non-paramedic Call Takers.

Implemented in April 2021, this course was designed over several months to provide additional training to Control Centre staff in conversing with mental health patients. The previous training was split and expanded to introduce a comprehensive session on suicide. This session along with the wellbeing workshop also provides students with better skills to look out for the signs of mental illness in themselves.

Improving these skills enhances the ability to get the appropriate response service to the patient in a timely manner. It is the start of providing best practice care to this vulnerable cohort of patients from their first point of contact.

This change in the training has doubled the amount of time spent on mental health training during Call Taker induction, with 60 staff completing the course by September 2021, and an additional 54 between October and the end of 2021.



Mental Health First Responder Program

In Hunter New England, NSW Ambulance has had a long partnership with NSW Police and Local Health Districts on the PAEAMHATH: Police, Ambulance Early Access to Mental Health Assessment via Tele Health trial to improve care for mental health patients.

In late 2020, NSW Ambulance, NSW Police and the Hunter New England Local Health District began co-designing an updated model, the Mental Health First Responder Program, to help support the cohort of individuals in the Hunter New England community who are mentally unwell or disturbed in the out of hospital setting.

This program is aimed at enabling out of hospital mental health triage and referrals, improving the care pathways for patients with low acuity mental health presentations. When encountering an eligible patient, paramedics or police officers may use iPads, provided by NSW Health, to contact dedicated mental health clinicians at the Northern Mental Health Emergency Care-Rural Access Program. These clinicians can then conduct a specialised mental health triage in the prehospital environment.



As a result, instead of being required to transport low level mental health patients to hospital for a mental health assessment, paramedics and/or police officers may be able to refer eligible patients for treatment through a community mental health care pathway. It is hoped this will result in fewer transportations and preventable presentations to ED and support patients being treated in the most appropriate setting. This is particularly beneficial in regional locations where patients may be over a 60 minute drive to their mental health facility. This is a long transport for an already distressed patient and can also result in reduced ambulance coverage for that area for the duration of the transport.

Preparation for implementation is underway, the NSW Ambulance team is currently refining procedures and training in alignment with mental health protocols and AHPRA requirements.

Paramedics at Police Mental Health Training

NSW Ambulance and NSW Police have a long history of working together, especially where frontline staff may attend the same scene. This can be common during a mental health crisis where emergency services are contacted due to an individual experiencing acute behavioural disturbances, delusions, hallucinations or suicidal ideas. In some scenarios unfortunately the patient may need to be transported involuntarily to ensure they can receive the most appropriate health care.

To prepare for these scenarios, both paramedics and police receive mental health training that includes effective de-escalation techniques as well as enacting the Mental Health Act. Historically, NSW Police and NSW Ambulance paramedics have reciprocally attended each other's mental health intervention training to provide additional insight and agency perspectives, and to prepare for real-life collaboration.

In 2020, the NSW Police Force - Mental Health Intervention Team developed the Enhanced Police Policing Practice Module. The training aims to ensure that safe and effective care of consumers in mental health crisis. It includes experiential casebased learning with scenarios including self-harm, suicide, acute behavioural disturbance and drug induced psychosis. Participating police officers receive individualised feedback from police, Local Health District and paramedic assessors. This helps prepare police when encountering these situations, understanding the different roles and perspectives and how the Mental Health Act can and may be applied in the field, making these cases safer for the community.

The training is held monthly with 30-35 police officers attending per course. However, due to COVID-19 the face-to-face training has been interrupted. The training is being revised for reintroduction in 2022, and will continue to involve NSW Ambulance.



Paramedics at Accredited Persons Training

The Mental Health Act (2007) makes provisions for all police, doctors and ambulance officers to schedule mentally ill or mentally disordered individuals where it is in their best interest. This ensures the patient can be transported, assessed and receive the most appropriate health care for their condition. Depending on the situation, this may be a collaborative effort across NSW Ambulance, NSW Police and Local Health District staff.

The Health Education Training Institute (HETI) Mental Health branch is commissioned by The Mental Health Branch of the NSW Ministry of Health to provide "Accredited Person Training" to appropriately qualified and experienced NSW Health mental health clinicians.

Those who have successfully completed this training will gain initial recognition as an Accredited Person under Section 136 of the Act, and are able to write Schedule 1 Certificate which enables an individual to be taken to a declared mental health facility against their will (Section 19). In particular circumstances Accredited Persons are able to conduct the first Form 1 assessment of a person in a declared mental health facility (Section 27A).

This training helps support the capacity of the total health system in responding to the needs of this vulnerable cohort by ensuring more staff have received the training to provide the best possible care and treatment in the least restrictive environment

In 2020-21 the previously face-to-face training has been adapted to a virtual platform, with content adapted to provide the same content in a way that engages the up to 30 participants.

NSW Ambulance participates in delivery of this training, describing the NSW Ambulance perspective, principles of care and treatment, voluntary and involuntary transportation and working with NSW Police. This collaboration is essential, especially when considering the involuntary transport to an Emergency Department will be completed by NSW Ambulance. This prepares participants for the real-life scenarios with the goal of ensuring the safest care for the patient.

As a result of this training being conducted in 20-21, an additional 74 NSW Health clinicians have been appointed as Accredited Persons



Mental Health Communications

The NSW Ambulance monthly staff distribution SIRENS helped delivery key messages including supporting best practice and mental health case documentation.

Between January and May 2021, Mental Health Assessment completion KPI has been greater than 2020 figures for the same month (see page 51). Communication highlights have included:

- Mental Health Month in October 2020
- The collaborative approach to mental health in December 2020
- Youth Mental health and COVID in January 2021
- Supporting Mental Health case documentation in April 2021



All staff email November 2020 'Mental Health Month Wrap Up'



SIRENS October 2020 'Healthy Living'



SIRENS April 2021 'Supporting Paramedics in Best Practice Mental Health Care'



SIRENS November 2020 'Looking back on Mental Health Month'



Priority 5: Innovation in Safety and Education

PARApodcast: educational podcasts

In the dynamic and fast paced NSW Ambulance environment, not all cases will proceed as planned and a structured debrief cannot always be held. To promote Case Based Learning (CBL) and the sharing of structured case discussions across a geographically dispersed workforce, NSW Ambulance Education developed the PARApodcast.

The PARApodcast is a high quality audio podcast, which involves a paramedic and subject matter expert (SME), discussing a specific case that resulted in an adverse outcome or an identified need to improve clinical patient safety and clinical quality. The podcasts were developed using teaching aides to ensure learning outcomes were consistent with NSW Ambulance policy, protocols and pharmacology. The objectives of the PARApodcast were to:

- 1. Improve clinical practice and patient safety
- 2. Use proven technology platforms to reach a diverse and dispersed workforce
- 3. Promote positive health and wellbeing by reducing clinical errors/near misses and the associated negative effects.

Six episodes have been released covering cases involving:

- Managing an asthmatic airway
- Challenges with ketamine
- Roadside delivery of twins
- A 24 hour patient extrication (rescuing an injured climber from a cliff face)
- A premature delivery at 25 weeks
- Gunshot trauma

The PARApodcast was trialled in 20-21 as an effective, easily accessed and user friendly method of fostering the transfer lessons learnt from challenging cases. The case discussions shared insights and learnings with other clinicians with reflective practice, building a knowledge base which can be used to improve clinical performance and reduce errors or near misses. By the end of June 2021, over 600 hours of CPD hours had been completed via the PARApodcast.





To achieve effective safety management and quality improvement, an organisation requires a workforce comprising individuals and teams with the right capabilities to ensure reliable, safe patient care and to continuously improve that care.

The Patient Safety Series was developed by the Patient Safety team as an additional way of providing clear, consistent communication regarding the learnings arising from patient safety observations.

Through Serious Adverse Event Reviews (SAERs) and the work of the Clinical Review Group, emerging risks or trends in clinical practice are identified. This allows case studies and lessons to be developed for the series, and ensures it is evidence based and reflective of current clinical themes, risks and issues. The series include a real example from NSW Ambulance practice and aims to be informative, thought provoking and provide concise take home messages to improve patient safety and clinical quality.

Some of the key learnings which formed the series in 20-21 included:

- Mental Health suicide risk assessment and the importance of family/third party information
- Clinical assessment and communication as a crucial element to support systems and patients
- Communication and checklists critical pieces in difficult scenes

The Patient Safety lessons learning series available on the Patient Safety intranet page and are now also published in SIRENS. Between March and July, the intranet page was visited 77 times and SIRENS was sent to over 200 locations across the state each month.



Paediatric Airway Kits and Backpack Oxy Resuscitators

Cases requiring airway management have increased significantly over time. NSW Ambulance has redesigned the paediatric airway kit backpack oxy resuscitator. This redesign standardised the layout of the kits and included labelling defined locations for the contents. This supports patient safety by allowing rapid identification and selection of the correct equipment. The redesign has prevented equipment crushing and decreased unusable airway equipment.

The redesigned kits use modern lightweight materials that improve infection control compliance and is upgradable by using removable and replaceable panels. The addition of a disposable suction apparatus has doubled suction capacity and enhanced infection control procedures, ensuring clean equipment is available at all times. This removes the need for suction equipment to be reassembled.

Both kits have been rolled out simultaneously across NSW Ambulance. Approximately 1,100 paediatric kits have been deployed by September 2021. The backpack oxy resuscitator has been deployed to 60 - 70% of frontline Ambulances with 700 completed by September 2021. It is anticipated that both kits will be fully deployed before June 2022.



Fairfield Falls

Fairfield Falls is a collaborative pilot program between NSW Ambulance and the Fairfield Adult Allied Health Ambulatory Care Service (FAAHACS).

The program targets patients in the Fairfield LGA who are 65 and older, who contact NSW Ambulance due to a fall. Eligible patients who do not require transport to a hospital can (with GP consent) be referred for a multifactorial allied health assessment and appropriate falls prevention interventions from the FAAHACS team.

With this alternate referral pathway, the patient avoids a trip to the Emergency Department and can receive appropriate and comprehensive care in the community.

In some cases this will also mean paramedics are also available sooner to attend to other emergency calls from the community. Patients referred to the program will be notified of their appointment in 1-2 days and receive a home visit in 5-7 days. For elderly patients with a high falls risk, these assessments may provide the best tailored approach to initiate strategies that may prevent a subsequent fall, allowing patients to receive appropriate treatment and remain in their home for longer.

The program commenced in March 2021. Liverpool Superstation staff participated in an information session about the program, which was positively received to help understand this additional way of providing best care to the community. Since this session, six patients have been appropriately referred to the program, all have received assistance in their home by the FAAHACS team and ED avoidance has been sustained for these patients. There are plans to extend the program further through the LHD in 2021-22.

Cardiac devices set to improve patient care and support clinicians

The NSW Ambulance Clinical Systems team has been working towards the replacement of the current cardiac monitor fleet, with the next generation options set to greatly improve safety and quality.

The new cardiac monitor is the result of 18 months of trials, roadshows and paramedic feedback to ensure the most appropriate device makes life easier for paramedics as well as future proofing our needs.

The project team is also evaluating a new notification platform, with the next generation system to improve workflow and provide greater communication capability. It also has the potential to provide a live stream of patient observations to receiving hospitals.

Clinicians will experience improved functionality, and more efficient and interactive transmission of critical medical information, with future benefits of the new platform are expected to include connectivity with electronic medical records, integration with other

NSW Health platforms and live streaming of patient details. Additionally, there is scope for a range of virtual care functions including tele-stroke.

Its improved functionality will assist paramedics to better look after patients. "We've listened to paramedics to find out what they want," clinical project owner Dean Pennell said. "If a paramedic heads out on a job, we want them equipped with what they need to do that job safely and with a bit of gear which makes life easier and safer."

"Key improvements include a lighter device, improved connectivity and a better position within vehicles. This will create less risk for mobile clinicians and improve workplace health and safety," Safety partner and registered paramedic Douglas Judge said.

Each device was also required to meet a number of requirements, including mandatory registration with the Therapeutic Goods Administration (TGA).

What will the new device and platform include?

- 12 Lead ECG
- Defibrillation
- Vital Signs Non-Invasive
 Blood Pressure, Pulse Oximetry,
 Capnography, Temperature
 monitoring
- Lighter weight

 Reduction
 in weight providing a safer
 workplace for paramedics
- Larger screen
- Docking Station docked safely and ergonomically in the vehicle for charging and securing
- Compatibility with other technologies – eMR, future all of Health integration projects
- Future functionality App based notification platform providing greater clinical scope such as Stroke, Trauma, referral etc





Prompted by some learnings from the 2019-20 bushfires and surge planning for COVID-19, an Australian Army MRH90 Taipan helicopter visited the NSW Ambulance Sydney helicopter base in May 2021. The goal of this exercise was greater understanding to build interoperability.

This interagency interoperability exercise enabled NSW Ambulance and the Australian Defence Force to understand each other's aircrafts, systems and processes. The goal of this exercise was to understand how it would be possible to transport and provide treatment using these aircraft in the event of a major incident or disaster.

Understanding the difference between the aircraft and being able to plan for patient care was an important exercise to ensure patient and team safety. As a result of this exercise NSW Ambulance has developed procedures for loading, unloading and treating patient inflight in an ADF aircraft, as well as identifying the ability NSW Ambulance equipment in flight. A range of 'Effect Statements' was also developed, which puts any NSW Ambulance request for assistance into ADF terminology, supporting clear communication should assistance be required.

Ensuring Helipad Safety

Many major hospital have dedicated helicopter landing sites, used by NSW Ambulance Rescue Helicopters when transferring retrieved patients to the hospital to receive lifesaving care. These sites link the out of hospital retrieval system to the hospital trauma system.

There are strict polices regarding the design, construction, maintenance and use of these sites. Any hazards on these sites pose a significant risk to staff and patients. They may also create unnecessary delays in providing patient care.

From early 2020, representatives from NSW Ambulance and Health Infrastructure including Chief

Pilots and the Director of Aviation Risk and Safety have been meeting to actively review each site to ensure they are safe and effective for operation. Ensuring these sites are safe for operation provides a safe and seamless entry point for patients into critical hospital areas, so that staff can safely deliver patients who can receive treatment without delay.

NSW Ambulance involvement in inspections has been essential to enabling NSW Health helipads to not just be a landing site, but a physical part of the patient's journey. This patient-centered approach has meant that upgrades and best practice is a key component of the state helipad maintenance program.

Monthly Aeromedical Town Hall Meetings

Senior aeromedical managers have been hosting a monthly virtual "town hall" meeting, open to all aeromedical staff including helicopters, fixed wing, aeromedical control and support staff. Although initially in response to COVID-19 as a way to get consistent and accurate information to staff, these meetings have continued and expanded. The meetings are conducted virtually to enable as many staff as possible to attend, with usually approximately 50% of all aeromedical staff in attendance.

The meetings may now include COVID-specific advice, advice on new medical equipment, discussion on the evidence base around clinical procedures and reviews, and always a Q&A session.

The meeting provides first hand access for all staff to senior managers allowing focused questions and provision of consistent information. The sessions also support clinicians to be confident, knowledgeable and engaged in their clinical practice to optimise patient safety and clinical quality.

Who CARES Wins

During COVID-19, most face-to-face training was required to be ceased due to social distancing requirements. A Paramedic Educator in Hunter New England devised one method to help overcome this, developing "Who Cares Wins", a live quiz game that is conducted via videoconferencing. Teams of paramedics were faced with questions across categories including:

- By the Book! (protocols),
- Have You Got the Skills? (application of skills),
- Trivia (medical knowledge),
- Big Pharma (pharmacology),
- Classic Condition (general health),
- TLAs (three-letter acronyms),
- Probably Poison (overdoses),
- Where's the Calculator (drug calculations),
- By Land and Sea ... or Air (special operations),
- Grey's Anatomy (anatomy), and
- Spelling Bee (medical terminology)

Over 150 paramedics across the Hunter New England region participated, divided into clusters of twenty stations. Champion stations in each cluster were determined, with the grand champion team being Narrabri Station in the Namoi Valley.

The Who CARES Wins format has received very positive feedback. Any misconceptions or incorrect practice is revealed and corrected, and staff have often returned to their resources to check the details.



The end result is everyone is prepared for re-registration, our knowledge is retained especially around our protocols and we learn new things which all goes to better patient care - Murray Scanlan

Who CARES Wins helped paramedics complete their Continuing Professional Development (CPD), supported cohesive team learning, reduced a sense of isolation, shared information and engaged staff in learning. Communication and knowledge transfer among participation stations was improved including sharing information about particular clinical cases encountered. A "Those Who Care Win" quiz is planned for later 2021.



Palliative Care and End of Life Education

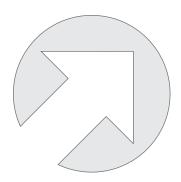
Palliative care-related incidents are increasing with the ageing population and many patients understandably express a desire to receive palliative and end of life care at home.

In 20-2021, NSW Ambulance developed additional online educational resources and introduced face-to-face palliative care training presented by a Paramedic Educator. Collaborative education opportunities with Local Health Districts have also commenced, using the Program of Experience in the Palliative Approach (PEPA) program.

Additionally, in September 2020 the palliative care protocol was expanded. This update enables paramedics to provide relief of distressing symptoms in palliative care such as breathlessness, pain, agitation or nausea and vomiting. As a result, paramedics can provide palliative care without a formalised Authorised Care Plan, increasing accessibility to palliative care in the community. This delivers patient centred care using an evidence based approach that aligns with patient goals of remaining at home for their end of life care. The paramedic reference protocol patient support numbers and verification of death protocol have also been updated.

These changes embed palliative care principles into the NSW Ambulance scope of practice and empower paramedics to put patient wishes at the centre of decision making and advocate for their patients and families, in respect to their physical, psychosocial, cultural and spiritual needs. Embedding palliative care into the NSW Ambulance scope of practise provides a robust and safe framework to guide paramedic practice that is flexible and responsive to patient needs as their condition changes.

Compared to the 19-20 year, the total number of palliative incidents increased by 810, and the number of incidents where the patient was not transported increased to 31%, up from 27%.



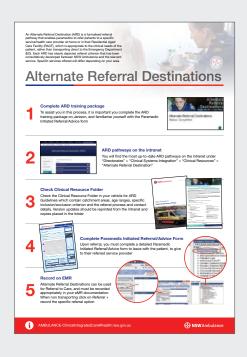
Compared to 2019-20 the total number of palliative incidents increased by

810

Posters supporting integrated care









Specialised transport and care for bariatric patients

Bariatric patients can be among some of the most complex patients attended to by NSW Ambulance clinicians, often having a more complex clinical history and presenting unique operational challenges for safe and effective transport. Additionally, this complex patient cohort can be resistant to seeking care or assistance and may have advanced clinical issues. Use of the bariatric protocol increased by almost 35% 2020-21 compared to the previous year.

In late 2020, NSW Ambulance released an updated education package to delivery contemporary training and skills that enable NSW Ambulance clinicians to provide reliable, safe, high quality care for these patients. This included:

 A revision of bariatric protocols, and resource materials including the bariatric management, the using additional assistance and Hammock transfer in lifting,

- Updated online education modules
- A training session in graduate paramedic induction
- New two day Face-to-face, experiential, problem based training that includes the operation of Multi-Purpose Vehicles (MPV)

Introducing these face-to-face courses has seen 83 paramedics trained in MPV-Light, and an additional 45 have completed MPV-Light and MPV-Heavy training. This increase availability of staff trained specifically in prehospital care and transport for bariatric patients improves health system access for these patients, helping to reduce delays for these patients who may require transport in an MPV. Additional training and refresher training sessions will be held, and a number of new MPVs are being purchased to update the available vehicles.



Specialised Training

NSW Ambulance staff will 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 training specific to providing pre hospital care.

















Above: Tamworth Rescue Team during a training day using the Arizona Vortex

Left: The Counter Terrorism & Emergency Management Unit at the Severe Burns Managent in the Field training course



SCOPE Training

The SCOPE Project (Simulated Curriculum for Out of hospital Paramedic Education) objective is to support the development of paramedic confidence and capability through participating in local peer led clinical simulation. The Project is a collaboration between NSW Ambulance, Hunter Medical Research Institute (HMRI) and Hunter New England Local Health District (HNELHD).

Peer led simulation provides staff with the resources and skills to develop and maintain their recency and currency in key practice skill sets, particularly high acuity and low occurrence areas of practice. These resources also supports paramedics in meeting their clinical professional development requirements for registration with the Paramedicine Board of Australia. This initiative will also be fundamental to supporting paramedics as they engage in their clinical revalidation in the future as part of a clinical credentialing framework.

In 20-21, the SCOPE project team completed the rollout of SCOPE Manikins and simulation resources. This included a total of 200 manikins and accompanying simulation resources (targeted clinical scenarios and debrief tools) along with the

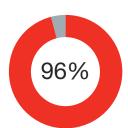
development of over 100 local SCOPE champions to facilitate paramedic participation. Using the manikin for mechanical CPR (mCPR) in accordance with the COVID ICP Update (see page) was included. The COVID scenarios released during the project have supported paramedics in reviewing clinical practice, guidelines and procedures that are subject to ongoing update in response to the evolving COVID environment. This rollout was heavily regional based with all existing and RAIR stations included.

The SCOPE team will continue to develop and release scenario packages during 21-22 including further integration of mCPR, practice upgrades, medications and treatments. Research is also occurring with HMRI.

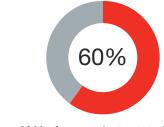
The Patient Experience

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.

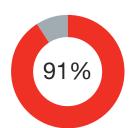
3,100 surveys were sent to those who had interacted with NSW Ambulance, and 674 responses were received.



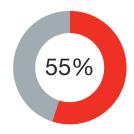
96% of respondents were either very satisfied or satisfied with their last experience.



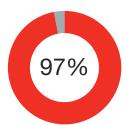
60% of respondents stated that they were connected either much quicker or a little quicker than expected.



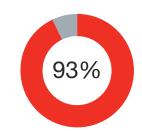
91% of respondents stated the call handler was very helpful and reassuring or helpful and reassuring.



55% of respondents stated that it was much quicker and a little quicker than they thought it would be.



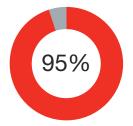
97% of respondents stated that they received very good and good level of care which is an increase from the responses in 2020.



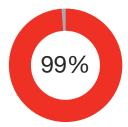
93% of responses stated that they had a very high level or a high level of confidence in the ambulance paramedics.



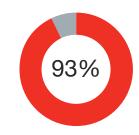
94% of patients and 95% of carers stated that the explanation of your condition and reasons for treatment was very clear or reasonably clear.



95% of respondents reported a very comfortable or comfortable ride.



84% of respondents felt they definitely or to some extent had enough time to discuss their concerns with the paramedics.



83% of respondents felt that the right amount of information about their condition was given.



85% of respondents definitely or to some extent had confidence and trust in the paramedics treating them.



91% of respondents stated they definitely or to some extent were helped to understand the paramedics actions and their choices/ preferences were listened to.

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

"I was treated with great care and respect. I couldn't ask for anything more."

Patient

"I was treated
with great care and
respect. I couldn't ask for
anything more."
Patient

"Paramedics were efficient and thorough whilst remaining comforting and informative. We have never been in a situation where we have required an ambulance, but we felt safe in their care" Carer

"They were kind, understanding and very friendly and made me feel at peace and I knew I was being looked after very well. Most importantly they made me feel safe and well cared for, they were the best." Patient



Feedback from the community

The below are statements are taken directly from the feedback of members of the community who were cared for by NSW Ambulance in 2020-21.

"My eternal thanks
to paramedics for their
wonderful work...their skill,
professionalism and calm

demeanour saved his life. They

attended to all his needs and

showed such care."

"On Christmas morning my son had an asthma attack and could not breath...I was on the phone for 10 minutes and he did a remarkable job of keeping me calm and talking me through it....[he] did an amazing job and I am very grateful and thankful. Also the two ambulance officers who treated my son were so calm and caring and patient with us. Thank you."

"I just wanted to acknowledge and thank the two paramedics who attended my mum...Their tremendous warmth and reassurance to mum was outstanding, they were so just wonderful in communicating, making her laugh through her pain and did a fantastic job." "I personally wish to pass my thanks & gratitude to the Triple 000 operator who received the initial call. The Call Taker was able to provide me with very clear instructions on the best method to administer CPR and then to secondly, successfully utilise the defibrillator...They kept me focused on the task at hand when I might have otherwise fallen to pieces."

"They were prompt,
professional, totally respectful and
absolutely fabulous... it meant a lot to
my brother and I that they were there. They
obviously knew that Mum was much more
serious than what my brother and I thought
...they made sure they got her to hospital
quickly... she passed away with dignity in
hospital with my brother and I by
her side."

"My toddler had fallen through the bedroom fly screen and landed on the patio below...shock and the fear was like nothing I had ever experienced. The team were amazing and the ease and speed with which they got us to the hospital was outstanding. I cannot thank them enough."

Clinical KPI results 2020/21

Strategic Priority 2.4

Performance Domain Timeliness and accessibility FY 20/21 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 (CCL) facility within 60 minutes.



NSW Ambulance has maintained strong performance against targets related to ST Elevation Myocardial Infarction (STEMI), across all quarters. NSW Ambulance supports clinical practice to ensure these targets are met through various means, this includes facilitated feedback sessions in collaboration with NSW Ambulance management teams, widespread or geographically targeted communications, individual focused clinical support either directly or via the educations teams. Results are presented in reports and progress graphs, including drilled down results to station level if required. The Northern Beaches PAPA pathway was successfully implemented, allowing Paramedics to refer patients direct to PCI.

Strategic Priority 2.4

Performance Domain Timeliness and accessibility FY 20/21 target 95% Major Trauma patients managed as per protocol T1 by either direct transport to a Trauma Service OR with Aeromedical Control Centre (ACC) notification



The Trauma Team in collaboration with local Paramedic Educators have been using the MS Teams videoconference platform to connect with Paramedics and provide opportunity for insights into contemporary trauma and trauma system management. This forum allows for discussion and questions relating to local challenges experienced and is open to Paramedics, Duty Operations Managers and other staff. The MS Teams forums are taped and made available to all paramedics in the Zone/s who are unable to attend in real time.



Strategic Priority 2.4

Performance Domain Timeliness and accessibility FY 20/21 target 90% Eligible Stroke FAST positive patients transported to a 24/7 acute thrombolytic centre (ATC) within the 4.5 hour clinical window from time of call for Metropolitan Sydney



Strategic Priority

Performance Domain

Timeliness and accessibility

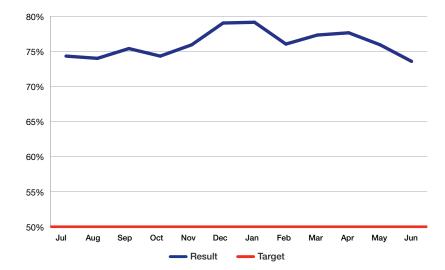
FY 20/21 target 80%

Eligible Stroke FAST positive patients transported to a 24/7 acute thrombolytic centre (ATC) or Acute Stroke Unit (ASU) within the 4.5 hour clinical window from time of call for Regional NSW



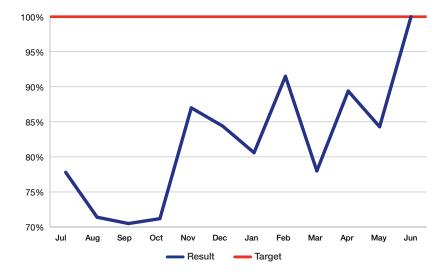
Stroke response remains a key focus area for improvement and has continued high achievement. To support this, a series of interactive presentations have been held across regional NSW, these have included information on the importance of accurate documentation, including recording of protocols, for patients 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 and a number of new Telestroke Hospitals now providing access to specialist stroke services. This messaging has been reinforced at management level through presentations delivered as part of the Ambulance Management Qualification program.

Strategic Priority 2.4 Performance Domain Appropriateness FY 20/21 target 50% Mental Health patients who have a mental health assessment completed



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.

Strategic Priority 2.3 Performance Domain Safety FY 20/21 target 100% Complaints
Management:
Complaints resolved
within 35 days

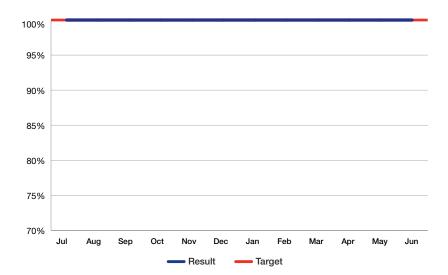


The transition to the new IMS+ platform occurred in June 2020. This created some challenges around both the 5 day acknowledgement of complaints and completion within 35 days, predominately due to the changes in the management and display within the system. Clinical Governance team introduced a series of additional steps to monitor and improve performance. These steps included;

- Delivering additional internal training;
- Monitoring consumer feedback timelines and alerting areas of their requirements;
- Providing 'how to' documents.



Strategic Priority 2.1 Performance Domain Safety FY 20/21 target 100% Death Review: Review of medical records for witnessed deaths review to occur within 45 days



The Clinical Review Group meets each fortnight and reviews all witnessed arrest cases. Easy access to Clinical data, such as the electronic medical record has allowed the Patient Safety team to identify cases that meet the KPI criteria earlier and allow for cases to be added to the Clinical Review Group meeting's agenda. The Qlikview database supports this process.

Strategic Priority 2.1 Performance Domain Safety FY 20/21 target 100% Root cause analysis: NSW Ambulance Internal RCAs completed in 70 days SAER completed within 60 days

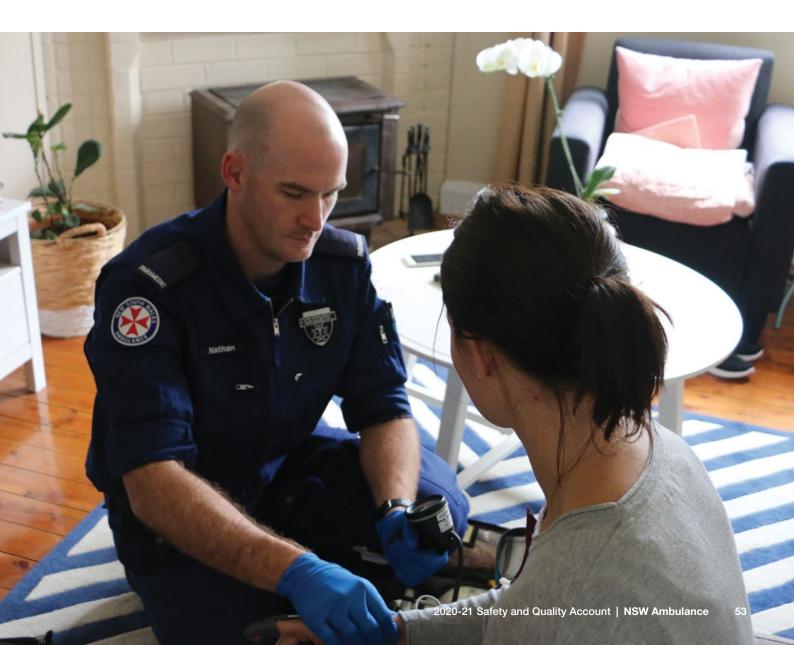


In December 2020 new legislation and a revised NSW Health Incident Management Policy results in a range of enhancements to the management of Serious Adverse Event Reviews (SAER) and included a revised performance metric of 60 days to complete investigations. The clinical governance teams have collaborated to enable early identification and escalation of incidents and streamline processes to reduce delays in completion of investigations within the required time frames. The Governance team has provided support to RCA teams as well being the dedicated family support contact point to inform them and guide them through the process.

Strategic Priority 2.1 Performance Domain Safety FY 20/21 target 85% Clinical Incidents Management: Clinical incidents completed within 28 days



Clinical Governance monitors incidents and works closely with managers on a regular basis to support timely completion of incidents.





Priorities for 2021-22

Aboriginal Health

Improved engagement and partnering with the community to provide safe, culturally appropriate care and supporting equitable access to high quality care for rural communities.

Care pathways

Building on the Secondary Triage program, NSW Ambulance is introducing a Virtual Clinical Care Centre (VCCC) and 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.

Clinical programs

Design and implementation of innovative care models for compassionate, patient centred care to provide compassionate, patient-centred clinical care for our patients, with an immediate focus on stroke, mental health and palliative care.

State Operations Centre

NSW Ambulance will relocate to a new State Operations Centre Sydney Olympic Park which will co-locate a number of teams including Sydney Control Centre, Aeromedical Control Centre, the Virtual Clinical Care Centre, Ambulance Education and corporate teams. This will enable necessary expansion of critical services and support collaboration across directorates. The new site will include specialised education and training facilities, and allow the current Sydney Control Centre site to be dedicated to training and onboarding of Control Centre staff.

Credentialing Framework and Mandatory Clinical Education Program

NSW Ambulance is developing a clinical credentialing framework, incorporating all clinical craft groups, that articulates the obligations, responsibilities and governance processes required to ensure all NSW Ambulance health practitioners are appropriately skilled, qualified and competent to deliver health services to the NSW community. Credentialing supports patient safety by ensure health practitioners provide care within the bounds of their education, training and 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. This framework will be established during 2022. 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 will introduce a more contemporary education approach that will 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.

Control Centre Reform

NSW Ambulance Control Centres manage the receipt, clinical triage, dispatch and oversight of all NSW Ambulance resources in response to request 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.







excellence in care

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