



NSW Ambulance

excellence in care

NSW Ambulance Year in Review **2014/15**



Introduction

2014/15 has been a year of strategic and operational milestones for NSW Ambulance. We are continuing to implement innovative developments in the way we deliver care as a mobile health service that takes care of patients, not just a transport service that takes patients to hospital. *Our Making Tomorrow Different* initiative was officially recognised in November 2014, winning the NSW Health Integrated Health Care Award.

The NSW Ambulance Strategic Plan 2015-2017 maps out the destination we've set for the future of ambulance services in NSW and builds on the Reform Plan for NSW Ambulance and the Reform Plan for Aeromedical (Rotary Wing) Retrieval Services in NSW.

Changes to the response grid are assisting us to prioritise the most urgent life threatening cases; while increasing the use of secondary triage to Healthdirect allows callers to be directed to the right care, the first time. Our formal partnership with the National Home Doctor Service and the Australian Locum Medical Service for after hours medical deputising services will see further improvements to our delivery of care to patients out of hours and in an out of hospital setting.

As part of a centrally coordinated, locally delivered mobile health service, the Paramedic Response Network will reshape our service delivery model for metropolitan Sydney, enabling strategic, sophisticated and dynamic deployment to meet community and patient need. The \$122 million allocated as part of the Rural

Ambulance Infrastructure Reconfiguration Program will improve 25 stations outside of metropolitan Sydney, benefiting staff and patients. This upgrade represents the largest single program of improvement work ever to take place on our rural ambulance services.

We changed our name to NSW Ambulance and changed our branding. We improved our organisational structure, removing two tiers of management, creating a leaner, flatter and more responsive management structure. We also reduced the number of committees, ensuring the right mix of representation is involved in every decision making process. The NSW Ambulance Advisory Council was renewed, with new members appointed to advise on the provision of ambulance services in the state.

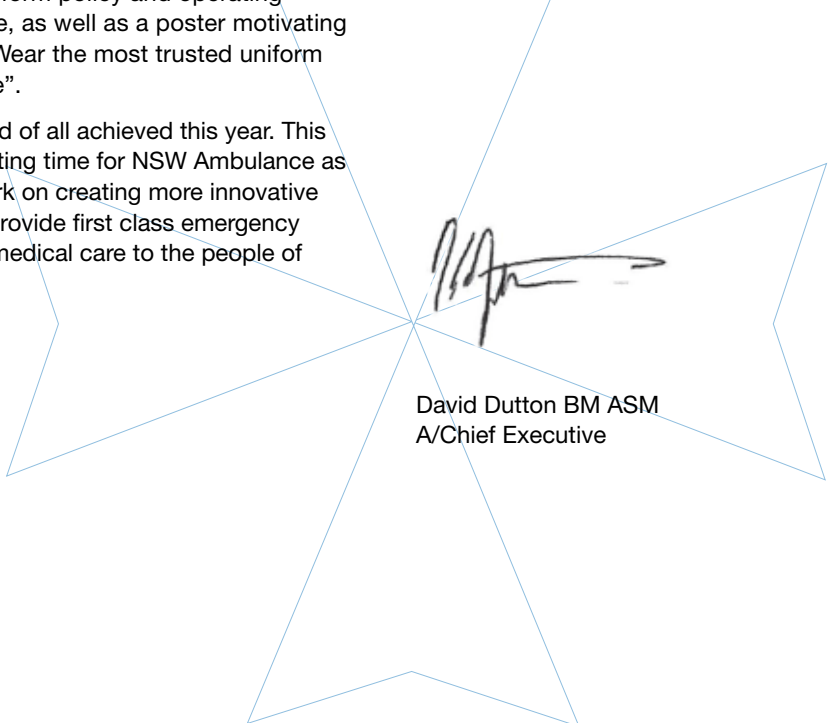
Our Professional Standards and Conduct Unit changed its name to the Professional Standards Unit, coming into line with other emergency services and focusing on education, support, liaison and investigation. Our focus on staff this year continued with the launch of our new electronic web based timesheet system eTime - a user-friendly, more efficient system.

Although an organisation can have the best strategic plan in place, it is never going to be successful if its culture is not right. 2014 was the year for safety at NSW Ambulance, with the launch of Destination NONE: Not One; Not Ever with the aim of reducing workplace injuries. In 2015, the spotlight focused on improving our

culture. We updated our CORE Values and produced a brand new poster for stations and workplaces across the state. We examined what a staff focused organisational culture looks like through our Signature Behaviour workshops with staff, which resulted in the identification of specific behaviours that are needed today to make tomorrow's culture different. From the workshops, *Our Eight Signature Behaviours* were developed, a matrix developed by staff for staff to improve the way we work together.

The new paramedic uniform was also developed in consultation with our frontline staff and has been rolled out sector-by-sector. This accompanied a new uniform policy and operating procedure, as well as a poster motivating staff to "Wear the most trusted uniform with pride".

I am proud of all achieved this year. This is an exciting time for NSW Ambulance as we embark on creating more innovative ways to provide first class emergency frontline medical care to the people of NSW.



David Dutton BM ASM
A/Chief Executive

THE REFORM PLAN FOR NSW AMBULANCE

In December 2012, the NSW Minister for Health released the Reform Plan for NSW Ambulance, which outlines five strategic directions aimed at improving ambulance services for the NSW community. NSW Ambulance was tasked with leading its implementation and formed a high level steering committee comprising key stakeholders from across the health system to oversee the process.

The journey

Implementation of the Reform Plan has concluded. Of the 34 reforms contained in the Plan, 33 have been completed and one is progressing in accordance with the wider reform program for non-emergency patient transport.

Strategic Direction 1 *Integrating NSW Ambulance within the broader health system* has been delivered and has resulted in improved working relationships between NSW Health entities. A centralised booking system to manage Non-Emergency Patient Transport (NEPT) requests has been implemented and a range of providers are being engaged to deliver NEPT services.

The implementation of Strategic Direction 3 *Developing new models of care and investing in new providers to effectively manage demand, have a positive impact on response time, reduce paramedic fatigue and improve the operating costs*

of NSW Ambulance is complete, with the Whole of Hospital (WoH) program driving improvements in patient flow, which coupled with sound handover training procedures, is enabling paramedics to be released more quickly to respond to emergencies in the community. Improved services for nursing home residents has also been delivered via the release of “building partnerships” - a framework for integrating care for older people with complex health needs.

Strategic Direction 4 *Ensuring NSW Ambulance has effective infrastructure and has a funding model that will ensure financial sustainability in the future* and Strategic Direction 5 *Strengthening the leadership, workforce and governance structure of NSW Ambulance and embracing the CORE values of Collaboration, Openness, Respect and Empowerment* have also been completed with updated delegations being issued across the organisation to assist streamline approval processes and delegate responsibility. A Leadership Framework has also been developed to enhance the skills of the NSW Ambulance workforce.

Formal monitoring of the implementation of the Reform Plan has now concluded and the Steering Committee has been disbanded. The initiatives contained within the Reform Plan have helped to shape the way for the strategies contained in our Strategic Plan, Making Tomorrow Different.

The implementation of the Reform Plan has assisted to ensure patient care is delivered in a coordinated way across the entire health system, increasing the ability of paramedics to respond to urgent life threatening emergencies.

NSW Ambulance is designed to make a difference to people's lives in seconds and minutes. However, if a patient doesn't require emergency assistance, NSW Ambulance will build on the initiatives contained within the Reform Plan to provide and/or coordinate an alternative pathway of care with other health providers which meets the patient's needs in the right way, at the right time, every time.

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NSW AMBULANCE ADVISORY COUNCIL

Following the release of the Reform Plan for NSW Ambulance, the Chief Executive sought to refresh the NSW Ambulance Advisory Council membership to enable better representation of individuals with expertise in process redesign, finance,

risk management, communication, crisis management and the health system.

The journey

The NSW Ambulance Advisory Council provides advice to the Chief Executive on the provision of ambulance services to the community. The NSW Ambulance Advisory Council is not designed to supersede the role of our management structure, rather it will enhance it. The NSW Minister for Health appointed the following members to the Advisory Council:

- Ms Robyn Kruk AM (Chair)
- Ms Patricia Azarias
- Adjunct Associate Professor Walter Kmet
- Mr Lewis Kaplan
- Ms Julie Babineau
- Dr Anthony Burrell
- Mr Raymond Green ASM
- Ms Julie Morgan
- Ms Kathryn Wood

The future

The NSW Ambulance Advisory Council is to meet quarterly, with four meetings scheduled over the next 12 months.

The refreshed NSW Ambulance Advisory Council will continue to help NSW Ambulance make a difference to providing an even better workplace for our staff and further improve the service we provide to our patients.

NSW AMBULANCE GOVERNANCE FRAMEWORK

The NSW Ambulance Corporate Governance Framework is aimed at driving performance improvement to meet our obligations and legislative requirements. The Framework outlines the interactions between management, governance and advisory committees designed to assist us monitor and drive performance, achieve our organisational goals and objectives and deliver on government reform.

The framework will mean staff can raise ideas, issues and concerns with managers, fostering a consultative process.

The journey

The Corporate Governance Framework provides a cohesive set of governance procedures for ensuring NSW Ambulance is managed in the best way possible and undertake policy and service delivery responsibilities in an open, accountable and ethical way.

Existing and new management, governance and advisory committees started the process of aligning to the new Framework throughout 2014 and 2015. As at 30 June 2015, the Executive Leadership and Senior Leadership Teams have put in place mechanisms

to enhance communication and engagement in the decision making process. All other management and governance committees are well on the road to meeting the aims of the Framework.

The future

The Framework allows a continual evolution to ensure organisational and service delivery objectives are met effectively, efficiently and transparently. In the future the governance, management and advisory committees will be continually reviewing their aims to ensure they align with the objectives of the NSW Ambulance Strategic Plan.

This initiative will help NSW Ambulance staff by enhancing collaboration across the organisation in the decision making process. It will also provide a mechanism within which staff are able to raise ideas, issues and concerns with managers as it fosters a consultative process. This will improve staff engagement and morale, thereby improving the services we offer to our patients.

Mechanisms have been put in place to enhance communication and engagement in the decision making process.



HELICOPTER RETRIEVAL SERVICES PROCUREMENT

On 17 July 2013, the NSW Minister for Health released the Reform Plan for Aeromedical (Rotary Wing) Retrieval Services in NSW, which addresses the second part of the Strategic Review of NSW Ambulance. A key recommendation of the Aeromedical Reform Plan was for the review of the service delivery model to rationalise provider numbers and aircraft types, standardise operations throughout the state and subsequently complete a procurement process to provide helicopter retrieval services throughout NSW under this new concept of operations.

The journey

A comprehensive procurement process was conducted by the NSW Ministry of Health during 2014 resulting in the award of two contracts (Northern NSW and Southern NSW) on 16 December 2014 for the provision of 24/7 Helicopter Retrieval Services. The new contracts have an initial term of 10 years with a further optional term of up to five years and will commence on a staged basis between January and June 2017.

The contracts include the provision of fully maintained helicopters, aircrews and ground support staff, base facilities and a state-of-the-art training centre in Sydney. An Agusta Westland AW139 helicopter was selected as the most suitable for fulfilling the multi-purpose roles due to its

proven track record, faster air speed and greater range than the current fleet. All 12 new aircraft will be identically configured to ensure standardisation of operations, maintenance, training and provide resourcing flexibility.

The new concept of operations will significantly enhance the delivery of services via improved response times with attending personnel utilising the latest in medical, rescue and aviation equipment and training.

Since the award of contracts, the substantial task of contract implementation has commenced including:

- internal medical fit-out design for the aircraft
- finalising aircraft configuration and commencing construction
- designing five new bases and modifications to a further two
- transition planning from current to new operators and bases
- planning the transition and ongoing training of staff
- commencing development of revised operational, safety and administration systems
- ongoing implementation of the Integrated Risk and Safety Management System
- seeking necessary development and aviation regulatory approvals.

The future

The next 12 months will be a critical phase in the implementation and will see the arrival of the new aircraft, commencement of aircraft medical fit-out, substantial completion of base building works, detailed transition and training plans in place, and substantial completion of the necessary administrative systems and regulatory approvals to commence operations.

The new concept of operations will *Make Tomorrow Different* for patients by

significantly enhancing the delivery of services via improved on scene response times with attending personnel utilising the latest in medical, rescue and aviation equipment and training. Retrieval services will be provided throughout NSW on a 24/7 basis from all bases. Staff will have access to brand new state-of-the-art aircraft and road vehicles, training facilities, bases, and rescue and medical equipment in order to provide the highest standard of care and a safer operating environment in which to complete their demanding work.



OPERATIONAL RISK PROFILES – AEROMEDICAL RETRIEVAL

The Reform Plan for Aeromedical (Rotary Wing) Retrieval Services in NSW defines the requirement for an enhanced risk and safety management system to be embedded into the Aeromedical Division. Part of this safety system is formal operational risk management. Given each aircraft has a composite crew across several aviation operators, a common risk understanding is to be achieved through operational task profiling.

The journey

The development of Operational Risk Profiles (ORPs) commenced in 2013. A suite containing 61 individual ORPs cover every operational level aviation task necessary for aeromedical retrieval, including flight operations, operational tasking, maintenance and facilities. Each ORP is built by establishing the sequence of steps each mission requires (task profile), then grouping steps and assessing the risk of these groupings for each mission. Each risk is then assessed in further detail to establish treatments to ensure that this risk is tolerable and as low as reasonably practicable.

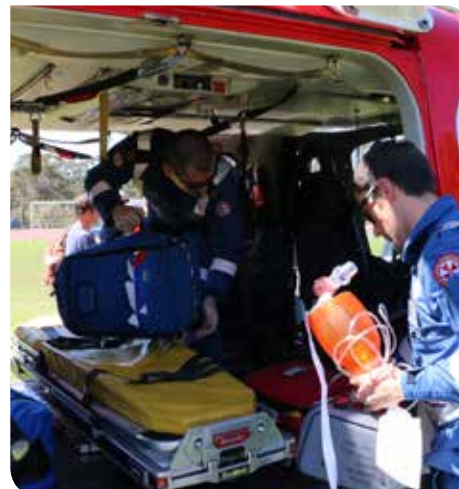
2014/15 has seen the introduction of ORPs into the aeromedical retrieval network, providing a benchmark for existing practices to be measured. Gaps identified are treated to comply with the NSW Ambulance ORP achieving consistency

across the network. This process, which sets standards and a feedback loop, also provides NSW Ambulance and its staff with the necessary level of assurance of safe practice.

The introduction of Operational Risk Profiles provide staff with the assurance that the aeromedical retrieval system they work within meets industry best practice standards; and that a robust system exists to ensure that any intended changes to mission profiles, processes or equipment also meet the same standards.

The future

Of the 61 ORPs, 42 have been implemented with the remainder to be completed by Dec 2015. Importantly, any intended changes to operational practice are now subject to the same rigorous risk management process.



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Our new concept of operations delivers the right care to the right patient at the right time - every time. Our patient centred, staff focused approach is seeing improvements in everything from the way we deliver care, develop our staff and make decisions, from infrastructure to eHealth. Although change of this magnitude will take time, we are steadily making progress.

URGENT CARE BOARD

An Urgent Care Board was established at the Sydney Control Centre in February 2014 as a six month Proof of Concept (PoC), aiming to improve the utilisation and overall efficiency of extended care paramedics (ECPs). The trial continued until October 2014 when it was ceased for evaluation. The PoC showed large increases in the use of ECP-relevant pathways, medications and interventions, reflecting a significant increase in the tasking of ECPs to appropriate patients. It also showed an increase in the proportion of patients transported by ECPs.

These factors reduced the demand on double paramedic crews on emergency ambulances, releasing them from unnecessary transports, freeing them from hospital delays and increasing their availability to respond to patients who required an emergency ambulance response.



The journey

The functional dispatch of ECPs has been shown to improve overall efficiency in several jurisdictions. Matching the correct resources to patients is critical to the success of specialist models which target predetermined patient groups.

By having an ECP in the control centre during the PoC, the number of ECP patients requiring a double paramedic crew emergency ambulance fell to 2643 (33.6 per cent). Before the trial, 47.5 per cent of all ECP attendances required an ambulance, and based on 7869 attendances by ECPs, the number requiring a double paramedic crew emergency ambulance would have been 3941 patients in the pre-PoC period. Thus, the PoC resulted in 1298 fewer double paramedic crew emergency ambulance responses and transports.

As a result of the PoC, the rate of dispatch of ECPs to ECP appropriate responses more than tripled from 19.3 per cent to an astounding 64 per cent.

Our new concept of operations of a patient-centred mobile health service is to increase the use of secondary telephone triage to direct callers to the right care, the first time.

The future

The project will align with the work streams of the Paramedic Response Network, where development of a modified sustainable model is being achieved. Clinical assistance will be provided to both ECPs and control centre staff to enhance resource matching, increase capacity for paramedic crews and support the Sydney Control Centre with incidents and decisions improved by application of secondary triage, clinical reasoning and risk mitigation.

REFERRAL OF LOW ACUITY PATIENTS TO HEALTHDIRECT

The referral of patients to Healthdirect allows non-serious and non-urgent described conditions to be further triaged by Registered Nurses, with the opportunity to provide alternate care and referral pathways which may avoid an ED presentation. For patients referred back to NSW Ambulance, our goal is to improve our understanding of their clinical condition and in turn schedule an appropriate response.

NSW Ambulance commenced the referral of eligible secondary triage callers to healthdirect on a 24/7 basis in April 2013. A strategic priority as part of our new concept of operations of a patient-centred mobile health service is to increase the use of secondary telephone triage to direct

callers to the right care, the first time.

The journey

In 2013/14 ambulance referred 27,140 calls to healthdirect. Monthly service improvement meetings are held with healthdirect to discuss operational processes and identify improvement opportunities to ensure the best possible patient journey.

During September 2015, four new Medical Priority Dispatch System (MPDS) determinants were approved for secondary triage eligibility. These determinants related to patients triaged under the sick person category for vomiting, unwell/ill or with a new onset of immobility, as well as those patients who have no priority symptoms following an accidental poisoning.

As a result of the new determinants, an additional 9968 patients were referred to healthdirect in 2014/15, which represents a 36.7 per cent increase; the total referred was 37,117.

The future

Over the next 12 months, MPDS determinants will continue to be reviewed for opportunities as secondary triage eligible. In addition, our processes for call referral and receipt will continue to be reviewed and refined to ensure patients are provided the right care, the first time.

CLINICAL PROGRAMS EVALUATION

Efficient use of NSW Ambulance resources benefits patients as well as our organisation. Strategies developed by NSW Ambulance ensure paramedics can deliver the right care to the right patient at the right time – every time. Thorough evaluation of these strategies highlights the successes and identifies areas for refinement so all patients can enjoy a fast, reliable and clinically-appropriate response to their emergency.

NSW Ambulance has implemented programs to encourage paramedics to work outside the historical “treat and transport” model, considering “treat and release” and “treat and refer” options. The role of Clinical Programs Evaluation is to develop monitoring strategies for these initiatives and to evaluate the clinical, operational and financial impact of new models of care to drive further refinement.

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The journey

The last year has seen a renewed focus on assisting project managers to develop evaluation strategies as part of the planning phase of new initiatives. This allows necessary data to be collected to ensure a robust evaluation of the clinical, operational and financial impact of new models of care in order to drive further refinement.

Major evaluations have been performed on a number of clinical projects including:

- Urgent Care Board proof-of-concept,
- Non-ED Alternate Referral trial conducted in the Central Coast zone
- Mental Health Acute Assessment Team.

Many of the strategies developed are novel to the out of hospital care community. An important focus of the last 12 months has been to highlight these NSW Ambulance strategies by developing conference presentations and journal papers for publication.

NSW Ambulance is also working with our partner agencies to evaluate the whole-of-health impact of innovative clinical initiatives, especially around major programs like the cardiac and stroke reperfusion programs.

The future

Much of the focus will be on collaborating with project managers to prospectively build evaluation initiatives into project plans, coupled with a continued focus on publication of NSW Ambulance clinical innovations.

SNAPSHOT

Service Delivery

To ensure our patients receive the right care at the right time, we need to provide the right response everytime, whether it is a life threatening emergency or urgent and unscheduled care. We have incorporated a number of initiatives on the frontline to support the right response decisions:

- triaging Triple Zero (000) calls to ensure the right response for the right patient
- increasing the use of secondary telephone triage to direct callers to the right care, the first time
- using improved control centre processes and technology that support our emergency response to patients
- implementing agreed response timeframes for patients requiring urgent and unscheduled care

- enhancing the utilisation of single responders
- providing alternative transport options for non-urgent patients who need care but have no transport
- introducing after hours medical deputising services.

The future

- increasing the referral rate for appropriate secondary telephone triage
- simplifying the response priority system
- further improving our dispatch process
- expanding tacticians and clinical advisors in control centres
- increasing the rate of single responder and extended care paramedic responses to appropriate patients
- using alternative transport for appropriate patients.



MEDICAL DEPUTISING SERVICES

NSW Ambulance recognises the changing focus from pre-hospital care to out of hospital care and aims to provide patients with the right care in the right place at the right time.

The Medical Deputising Service initiative aims to build on existing alternate referral pathways for patients with low-acuity conditions, providing more suitable care for patients who call Triple Zero (000), but whose condition does not require transport to an Emergency Department (ED). Previously, transport of these patients resulted in long delays in the ED, preventing the unavailability of paramedic to respond to more urgent cases.

The journey

Feedback from paramedics highlighted difficulties in providing patients with a referral outside standard GP practice hours. NSW Ambulance sought expressions of interest from services to provide bulkbilled, after-hours GP home visits to patients referred by paramedics in the Sydney metropolitan area.

NSW Ambulance entered into an agreement with two Medical Deputising Services, with the program commencing in February 2015. Referrals to the Medical Deputising Services have reduced case cycle times and increased ambulance capacity as well as reducing demand on EDs.

Early analysis shows adequate uptake of this program by paramedics with a possible trend of increasing utilisation. The most commonly referred conditions are cough/fever, nausea/vomiting, back pain and falls.

The program can be easily duplicated in line with the service providers' plans to expand their services into the Central Coast, Illawarra and larger regional centres.

We recognise the changing focus from pre-hospital care to out of hospital care, providing patients with the right care in the right place at the right time.

The future

At least one of the providers is preparing to commence operation in the Central Coast area. NSW Ambulance is continually looking for opportunities to form relationships with Medical Deputising Service providers outside the Sydney Metropolitan area. New relationships are also being established with additional service providers to expand the range of options for paramedics to refer suitable patients to after-hours GP services.



IS YOUR URGENCY AN EMERGENCY? CAMPAIGN

The Is Your Urgency an Emergency? media and social media campaign was conceived to address a year round whole of health problem, particularly experienced during the busy winter season - NSW Ambulance paramedics attending non-medical emergencies preventing them attending a patient with a life threatening emergency, potentially putting their life at risk. The campaign aims to educate the community on making the right call at the right time, allowing our paramedics to provide the right patient care in the right place at the right time.

The journey

With the demand for NSW Ambulance resources increasing, it was important to educate the public on the alternative care pathways that exist for low acuity cases; that not every call required an ambulance. The campaign prompted the public to think before dialling Triple Zero (000), ensuring appropriate patient care and the best use of NSW Ambulance resources.

The first of its kind for NSW Ambulance, the hard hitting, factual and thought provoking campaign was carefully designed to be whole of health relevant to not only support NSW Ambulance, but the wider health system we belong to. The campaign is made up of four posters, an urgency and emergency gauge, a raft of key messages and interactive video and photo content.

The Future

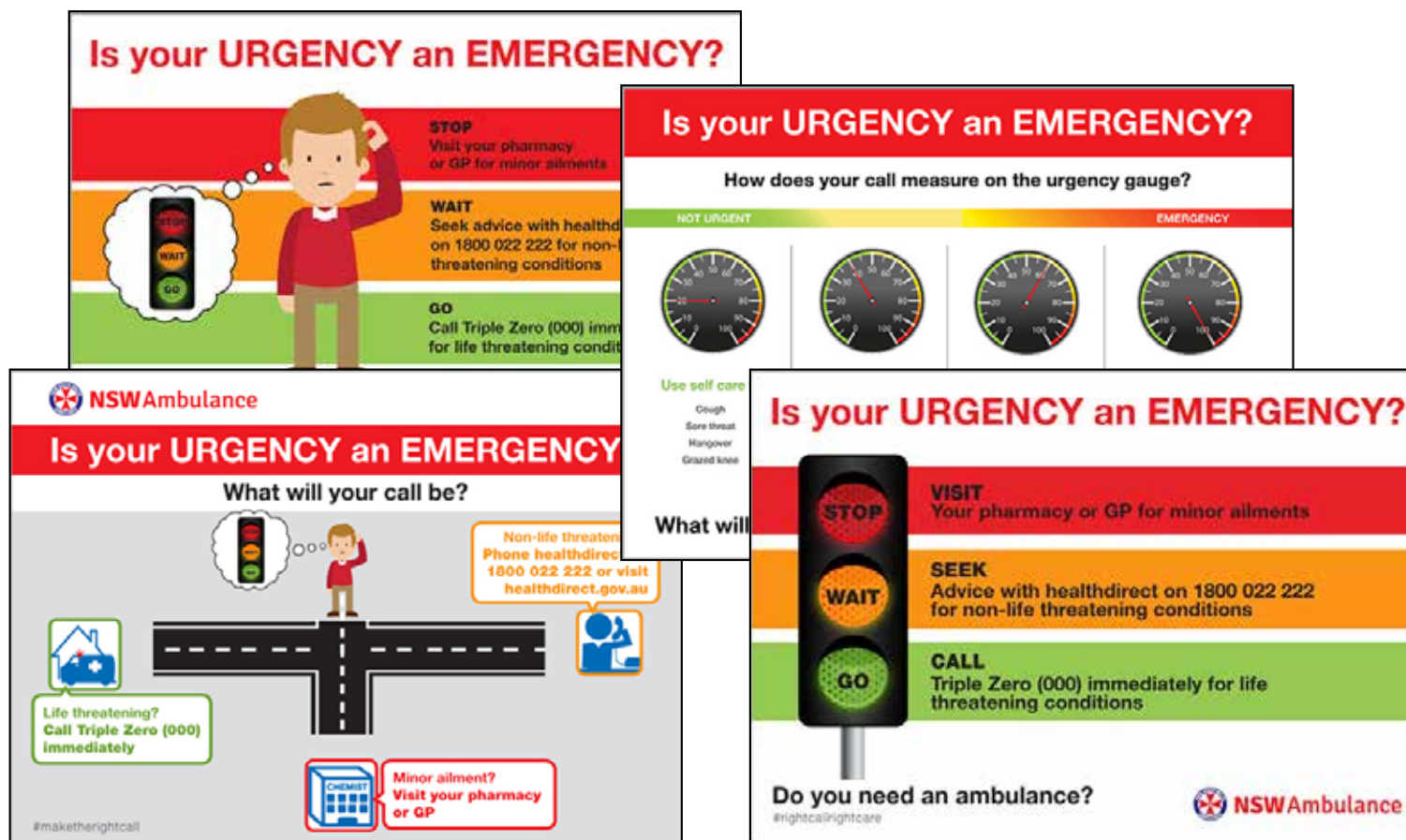
The campaign will continue to allow greater collaboration between NSW Ambulance and NSW Health LHDs by defining a unified message. Specifically designed to be whole of health applicable, there are a range of campaign elements which are relevant and can be adopted and promoted

by LHDs, community groups, emergency departments, health clinics, aged care facilities, schools, pharmacies, stakeholder groups and GPs.

The campaign will assist changing expectations of patients with low acuity presentations across the state who call for paramedics or attend hospital emergency departments. Although timed for winter, the

messaging will remain relevant throughout 2016 and campaign elements will be built upon to ensure continuance of community education.

The campaign can also be adopted by any health service, with interest from ambulance services interstate and in the United Kingdom regarding adopting our messaging and slogan.



SCAT/SOT REVIEW

A review into the tasking and deployment practices of Special Casualty Access Team (SCAT) and Special Operations Team (SOT) paramedics was commissioned in September 2014. The review also sought to examine the education, training delivery and accreditation practices associated with SCAT and SOT paramedics. The aim of the review is to provide a future operational framework for Specialist Operations across NSW Ambulance.

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The journey

To better understand current practices associated with the education, training and accreditation, tasking and eventual deployment of the Special Operations Unit, the four-person independent panel adopted a phased approach to the task, employing an information gathering, collation, and analysis methodology.

From September 2014 until January 2015, the panel interviewed a number

of SCAT and SOT paramedics and managers. These interviews focused on the management of key aspects of SCAT/SOT education and training delivery, as well as incident coordination (tasking and deployment of resources). Following the interview process, a number of staff forums were convened and conducted between January 2015 and March 2015.

The future

The findings and recommendations of the SCAT/SOT review were presented to the Executive Leadership Team in 2015.

The aim of the review is to provide a future operational framework for Specialist Operations across NSW Ambulance.



ADVANCED HAEMORRHAGE CONTROL

Haemorrhage is the most common preventable cause of death following trauma. Medical teams are commonly called to assist road paramedics with patients suffering life-threatening haemorrhage from a range of sites and the first priority in all such patients is to “turn off the tap”. Current modalities used by medical teams include direct pressure, pelvic and long bone splintage, tourniquets, tranexamic acid, staples/sutures and nasal balloon tamponade. Unfortunately, a number of patients have bleeding in so-called “junctional” areas like the groin, axilla or neck which may be very difficult to control even with these measures.



The journey

Health Emergency & Aeromedical Services already have considerable expertise in managing patients with life threatening bleeding; blood transfusion has been

available to physician/paramedic services in NSW for many decades. In 2014, we considerably enhanced our systems for on-scene haemorrhage control. Such measures included:

- “buddy-lite” portable fluid and blood warming system which means warmed blood or fluids can be delivered to critically ill patients, avoiding the harms associated with cold blood administration
- topical haemostatic gauze was introduced, having made its way from the military to civilian EMS environment and providing additional means to arrest external haemorrhage
- balloon “Foley” catheters provide a

means to internally compress bleeding, particularly in “junctional-site” haemorrhage following penetrating trauma

- “Israeli” pressure bandages are a significant improvement over simple crepe or basic dressings in life-threatening haemorrhage
- a statewide Pre-hospital Code Crimson notification for Major Trauma Centres is in the final stages of approval by the NSW Institute of Trauma and Injury Management and should improve the ability of trauma centres to prepare internal resources to receive patients identified as suffering life-threatening internal haemorrhage.

Measures introduced to arrest life-threatening haemorrhage on-scene is bringing the Emergency Department to the patient at the scene, shortening the time to meaningful intervention.



The future

NSW Ambulance medical teams are currently exploring more advanced means of haemorrhage control, such as Retrograde Endovascular Balloon Occlusion of the Aorta (REBOA), the Abdominal Aortic and Junctional Tourniquet (AAJT) Device and Freeze-dried Lypophylised Plasma. Several of our clinicians are trained in the use of REBOA and expected improvements in the equipment mean we are well placed to introduce the technology into out of hospital care in NSW.

Measures such as those introduced to arrest life-threatening haemorrhage on-scene have great potential to improve mortality as well as morbidity in patients suffering life threatening haemorrhage. Such capabilities are the essence of bringing the Emergency Department to the patient at the scene, shortening the time to physical intervention.

eMR printing in EDs

In order to increase compliance of eMR (electronic medical record) usage and to provide an alternate printing facility to the thermal printers in ambulances, dedicated printers at major Emergency Departments (EDs) are being rolled out in partnership with NSW Health. Paramedics will now have the capability to automatically print an eMR at most major EDs as part of the patient handover process to ED staff.

The journey

An initiative of an eMR project focused on improving the compliance and experience of the eMR, the thermal printers did not allow for completion of an eMR at hospital

EDs where there was the opportunity to provide a facility for printing completing the record for handover of the patient to hospital staff.

The project prioritised hospitals by forecasted volume of print pages and then formulated a rollout plan by stages and size. To date, 49 printers have been rolled out to EDs in partnership with NSW Health which represents an estimated 80 per cent of printing volume of eMRs.

The future

Over the next six months, further printers will be rolled out to maximise coverage of the remaining 20 per cent of printing volume.

SMART Triage Tags

Paramedics are often confronted with responses to multiple patient situations and there are always ways to improve how we manage their clinical treatment and transport prioritisation. NSW Ambulance has been transitioning from the old style of individually coloured cardboard triage tags to the new SMART Triage tag.

Clinical observations are recorded on the tag which stays with the patient, providing continuity of documentation. The SMART Paediatric Tape with paediatric algorithms will improve clinical triage of babies and children, as adult based assessment algorithms result in over triaging of children at the expense of more severely injured adults. The inclusion of a Chemical, Biological, Radiological and Nuclear (CBRN) / Hazardous Materials (HAZMAT) card to document substance and decontamination procedures will enhance hospital staff's understanding of field decontamination procedures and provide reassurance that any risk to ED staff has been eliminated.

The journey

In December 2014, NSW Ambulance worked with NSW HealthShare to facilitate the initial rollout of stock to all patient-carrying ambulance vehicles. In February 2015, NSW Ambulance received delivery of the Smart Triage Tags from the United Kingdom. Implementation was completed on 17 June 2015, which included:

- product familiarisation sessions

developed for all frontline managers, educators and clinical training officers throughout NSW, equipping them with the tools to deliver the session to their staff

- development of a new protocol A11 – Multiple Patient Situations which incorporated the use of the new triage tags and the sieve/sort algorithms
- data provided for the kit rollout to all vehicles
- deployment of the SMART triage tags at a number of scenario exercises.
- Used by all ambulance services in Australia the SMART tag also facilitates enhanced inter-operability during cross border operations.

The future

The go live date for the use of the SMART Triage Tags is 1 July 2015. In the future, via a unique barcode number, patients' tags can be scanned and geotagged at any point, with software updating in real time to the control centres that are managing the incident. The NSW Health Emergency Management Unit is coordinating NSW Ambulance's participation in the development of this capability in conjunction with the Northern Territory Critical Care Trauma Response Centre.



CARDIAC (STEMI) REPERFUSION PROGRAM

NSW Ambulance provides our patients across NSW with a unique acute cardiac model of care that continues to innovate and improve. In every community when someone rings Triple Zero (000) for a suspected heart attack, the health system activation starts. From the NSW Ambulance call taker to the paramedic, there is a seamless communication path.

From paramedic arrival, the patient is the focus of evidence based high quality treatment. Communication, including Electrocardiograph (ECG) telemetry, supports the patient and health system activation. Hospital specialists are alerted to setup quality interventions before the patient even reaches the hospital.

Reducing the time from symptom onset to re-establishing coronary artery blood flow is key to minimising death and disability in ST Elevation Myocardial Infarction (STEMI). In conjunction with NSW Health, NSW Ambulance designed and implemented an evidenced based, patient centred system of care enabling paramedics to deliver world standard cardiac reperfusion

The journey

Pre Hospital Thrombolysis (PHT) and Pre Hospital Assessment for Primary Angioplasty (PAPA):

- 580 patients have been treated by paramedics with PHT since the

program commenced on 1 July 2008; 208 were treated during 2014/15

- 1975 patients were transmitted for STEMI using the PAPA program during 2014/15
- available in every community in NSW serviced by paramedics, with every emergency ambulance using 12 lead ECG and all paramedics able to deliver cardiac reperfusion
- thrombolytic pharmacy moved to HealthShare NSW (HSS) as transition to general business and a review of all reperfusion pharmacology and protocols undertaken with input from expert physicians and cardiologists
- revised STEMI pocket cards, a checklist and consent have been developed for paramedic use
- collaboration with the Department of Corrective Services and Justice Health realised the change to regulations enabling paramedics to use transmission devices in correctional facilities across NSW
- all PHT areas received continuing educational support for paramedics, including STEMI poster, phone conferences, case management feedback from the cardiac team and support to regional educational units
- PAPA is consistently achieving the international benchmark of First Clinical Contact to artery opens in 90 minutes
- progression of the transfer of

transmission technology fiscal responsibility to zones

- development of a more robust platform to manage Tenecteplase using sharepoint
- reduced “door to balloon (D2B) time” in a major Sydney Hospital decreased by 65 per cent.

The future

Current process enhancements include:

- evaluation of the State Cardiac Reperfusion Strategy

- exploration of new technologies supporting point of care decision making
- the emergence of the role of the rural paramedic in Acute Coronary Syndrome (ACS)
- transfers of patients with unresolved STEMI – Hot MI
- statewide ACS matrix – the right hospital with out of hospital ACS risk stratification without the use of biomarkers.

In conjunction with NSW Health, NSW Ambulance designed and implemented an evidenced based, patient centred system of care enabling paramedics to deliver world standard cardiac reperfusion



MODELS OF CARE - MAJOR TRAUMA TEAM

The NSW Ambulance Major Trauma Team provide strategic oversight ensuring a high level focus on improving quality system monitoring and promoting excellence in the management of major trauma patients in the out of hospital environment.

Enhancements in the processes of improving patient care are continually being achieved through collaboration with NSW Ambulance operational managers, clinical support managers and paramedics, Research, Education, hospital liaison officers, Aeromedical & Medical Retrieval Services (AMRS), staff specialists, clinical governance and information technology. Externally, with clinical nurse consultants and trauma directors at Major Trauma facilities, the NSW Institute of Trauma and Injury Management (ITIM) and the Agency of Clinical Innovation (ACI).

T-POD Pelvic Stabilisation Device Rollout

NSW Ambulance, in collaboration with HealthShare NSW, has led the introduction and progressive rollout of the new T-POD Pelvic Stabilization Device - a purpose specific designed pelvic binder which wraps around the patient's pelvis and is secured under tension. It is applied out of hospital on patients with actual or suspected pelvic injuries to potentially allow control of

unseen major haemorrhage from the pelvic area. In addition, it stabilises the pelvis which limits movement and subsequently reduces patient pain.

Feedback from our educators has been very positive, with the device being much simpler to use and taking less resources to apply. Compliance with the application of pelvic splinting for major trauma patients will improve with the introduction of this new device.

Enhancements in the processes of improving patient care are continually being achieved

Geriatric Trauma

Out of hospital triage plays a critical role in directing seriously injured patients to trauma services, improving the survival and functional outcomes of geriatric patients. The geriatric population is unique in the type of traumatic injuries sustained, physiological responses to those injuries and an overall higher mortality when compared to younger adults.

The Major Trauma Team is currently reviewing literature and medical evidence to identify geriatric specific criteria that will improve the identification of patients who have sustained or potentially sustained serious injuries.

Data from the NSW Trauma Registry from 2013 demonstrates a significant component of major trauma patients greater than 65 years of age.

This trend, along with an increasing aged population, provides significant challenges for paramedics to identify and manage these patients appropriately. Consultation is also being undertaken with the Trauma Services and other Australian and New Zealand ambulance services.

Whilst under-triage is a concern, any geriatric specific criteria identified will need to balance the potential for over-triage which would overload the Trauma Services.





Trauma Activity Group

The Trauma Activity Group (TAG) terms of reference have been reviewed and updated with deteriorating trauma patient cases to be identified from internal reporting.

Deteriorating trauma patient cases will have clinical management and system activation and responses reviewed from the time of the initial Triple Zero (000) call until the patient arrives at a Trauma Service hospital. Any trends and/or issues identified as a result of these case reviews will be referred to the Trauma Quality Committee for discussion, direction and action.

These reviews will assist in improving the statewide identification, treatment and management of major trauma to provide patients with the best opportunity for improved outcomes.

The future

Clinical oversight to ensure there is a high level focus on improving quality system monitoring and promoting excellence in the management of major trauma patients in the out of hospital environment.



DROPERIDOL FOR PATIENT MANAGEMENT IN ADULTS

The use of sedation in the management of behaviourally disturbed patients was a recurring theme in the consultation on the development of the NSW Ambulance mental health strategic plan. Of particular interest was the type of sedation being used (midazolam) and the limited number of paramedics authorised to administer it. It was believed that the restricted scope of practice to administer midazolam did not reflect the current clinical skill level of a qualified paramedic.

Droperidol has been shown to be a superior drug in terms of patient safety with less risk of over-sedation but with sedative properties that are longer lasting, making it particularly suitable for long transports in regional areas. This longer-lasting effect also has implications for enhanced staff safety.

The journey

In response to concerns raised by paramedics, the scope of practice for the administration of sedation for patient management was reviewed and alternatives to midazolam were investigated. A literature review showed that the neuroleptic droperidol was widely used in psychiatry for the management of severe agitation, hyperactivity and aggressiveness and had longer acting duration and fewer side effects.

While droperidol was seen as clinically appropriate, a complicating factor for its use in the out of hospital setting was the presentation and recommended dosage of 2.5 mg/1 ml ampoule with a recommended maximum dosage of 25 mg. To administer the maximum recommended dosage would require the use of 10 ampoules.

Following discussions with the manufacturer it was agreed that NSW Ambulance would be supplied with a presentation of droperidol as 10 mg/2 ml (DORN). The introduction of droperidol for patient management in adults was endorsed and extending the scope of practice of P1 paramedics to administer it.

The procurement process is now underway and it is anticipated this medication will be available by 30 September 2015.

The future

Mandatory training in the administration of droperidol will be included in NSW Ambulance Scheduled Training that will commence in July 2015. In order to support timely deployment of patient sedation for paramedics, a short online module will be made available.

PATIENT PROTECTION SYSTEM

NSW Ambulance helicopters require a purpose designed “sleeping bag” to protect patients from the rugged aeromedical environment. This bag requires many important features to be operationally effective and provide protection from harsh environments and ongoing clinical care, as well as ergonomic features to assist medical teams.

The journey

In October 2014, it was identified that the current stock of patient sleeping bags was depleted and the manufacture no longer produced them. The need still existed for a purpose designed bag for patients, and combined with the addition of full time medical crews in the northern half of NSW, a statewide project was initiated.

Given the frontline nature of the item, the project was led by helicopter paramedics and supported by aeromedical management. Over the next six months, the project team worked with critical care paramedics and doctors from Lismore, Tamworth, Newcastle, Sydney, Orange, Wollongong and Canberra to identify a design that protected patients from harsh environments, as well as allowing for ongoing clinical care and the inclusion of manual handling features.

Due to the range of climates (the heat of Lismore to the cold of Canberra) and need to ensure easy decontamination, the original sleeping bag design was radically

changed to a two layer system involving a high visibility, rugged, easy washable outer shell with built-in handles and zippers for clinical access, with a low cost inner sleeping bag for use in colder climates.

This was a patient centred and staff focused project. It involved the experience and lessons learned by our medical teams over the last two decades, combined with the enthusiasm and commitment of staff to develop a piece of equipment perfectly suited to the workplace.

The future

The high visibility nature of the bag will assist with winching operations; the numerous handles and their design will assist with manual handling; the fabric selection and two layer design will greatly assist with infection control; and the clinically focused design will allow for improved access to patients to ensure ongoing assessment and care in the complex aeromedical environment.

The final product has been reviewed by the Aeromedical Equipment Committee and will be rolled out across all NSW and ACT helicopter bases by August 2015. It is anticipated that there will be great interest from other aeromedical operations around Australia and perhaps further.



This was a patient centred and staff focused project, involving the experience and lessons learned by our medical teams over the last two decades.



The work profile of NSW Ambulance continues to evolve from its traditional focus on acute care and transport to one of ever-increasing out of hospital care provision. NSW Ambulance's Integrated Care Strategy focuses on improving the integration and patient connectedness through support of low acuity models of care with other health and social service providers, Primary Health Networks and non-government organisations within and across Local Health District (LHD) boundaries.

Integrated care initiatives have been established across NSW Ambulance sectors and clinically supported based on the principle of “centrally coordinated” by the Models of Care Unit and locally delivered through the local operational management teams and our health relationship managers.

Alternate Referral Destinations

Enabling Low Acuity Patient Referral to Alternate Destinations was a proof of concept (PoC) with the evaluation of the concept completed in September 2014.

This initiative recognises the specialist role of general practitioners (GPs) in the ongoing care of their patients, such as chronic disease where a GP has a good understanding of their patients' baseline symptoms, and therefore, providing appropriate care in the right place for the patient. The decisions about care are jointly made and inclusive of the patient, the paramedic and the GP.

The benefits of this model of care increases operational capacity through decrease case cycle time and freeing up paramedics in readiness to respond to emergencies, as well as freeing up the ED's capacity. The initiative has now expanded into the Macarthur area of Sydney and an enhancement of trained paramedics on the Central Coast has been facilitated.

Palliative and End of Life Care

As with other NSW Health jurisdictions, NSW Ambulance is working towards a common goal to meet the recommendations of the NSW Health Advance Planning for Quality End of Life Action Plan 2013-2018. This is being achieved through paramedics responding to the wishes of the palliative patient with Authorised Care Plans and NSW Health Resuscitation Plans.

The concept of Authorised Care Plans is to support paramedic decision making in meeting the needs of individual patients. Authorised Care planning has three aspects:

- General Authorised Care Plans
- Paediatric Authorised Palliative Care Plans
- Adult Authorised Palliative Care Plans.

The Authorised Palliative Care Plans encompass chronic life limiting illness and palliative care patients and their treatment decisions through the application of standardised Advanced or End of Life Care Plan. The plans support paramedics to meet the needs and wishes of palliative patients and those with medical conditions requiring pre-authorisation of medications or treatment beyond paramedic scope of practice.

The benefits of this model of care increases operational capacity through decrease case cycle time and freeing up resources in readiness to respond to emergencies.



TOP 5

Developed to support patients with dementia or cognitive impairment, the Top 5 initiative focuses on effective communication between patient, carers and staff based on a personalised approach. NSW Ambulance has collaborated with the Clinical Excellence Commission to implement the TOP 5 program as a statewide awareness strategy.

To further complement assessment and care for patients with dementia or cognitive impairment presenting to NSW Ambulance paramedics, the ABBEY Pain Scale - a validated method of measurement of pain in people with dementia or cognitive impairment who cannot verbalise - has also been introduced for use by paramedics.



Aged Care

NSW Ambulance is working on linking residents of Residential Age Care Facilities (RACF) with more appropriate care. This is being facilitated through:

- collaborating with RACF managers, targeting high volume callers from RACFs to NSW Ambulance Triple Zero (000) using data interrogation, we are providing advice and support to facility staff in managing patients who present as non-life threatening and linking them to other established LHD aged care triage or outreach services
- supported by the Wollongong Hospital ED, promotion of the RACF Clinical Advice Line for RACF staff across the Illawarra South Western Sydney LHD
- participation in Aged Care Provider Groups facilitated by the relevant LHDs in conjunction with Primary

Healthcare Networks, working on reforms to address urgent/unplanned illness or injury of aged care residents at their usual place of residence

- utilisation of the Clinical Handover "Yellow" Envelope to standardise handover of clinical documents for patients moving to and from a RACF via NSW Ambulance and/or Non-Emergency Patient Transport (NEPT).

Formalising additional LHD Extended Care Paramedic (ECP) referral arrangements

Bypassing ED triage with patients attended to by ECPs using agreed criteria is now in place at:

- Nepean Hospital – Medical Assessment Unit (MAU)
- Liverpool, Bankstown and Campbelltown Hospitals - Ambulatory Care

Direct referral by ECPs to aged outreach services is now occurring, including:

- LHD Aged Care Emergency Triage Services
- Geriatric Rapid Acute Care Evaluation
- Southcare
- Nepean Blue Mountains LHD
- Virtual Age Care Service
- Primary Care and Community Health.

Primary Healthcare Network ARGUS Initiative

This initiative uses encrypted peer-to-peer emailing between the LHD and GPs to include paramedics at an identified location – Wagga Wagga. This improves continuity of patient care to general practice by implementing secure electronic communication systems between NSW Ambulance and GPs. Alongside the NSW Ambulance local management team in the Southern Sector, the Models of Care Unit were involved throughout the project set up, implementation and the evaluation phase.



Paramedic Connect

Paramedics in identified small rural locations collaborated with the LHD and local community health team(s) to complement existing and future health services. Paramedic Connect creates closer links between NSW Ambulance and small rural communities resulting in:

- better health outcomes for the patients
- fewer ED presentations
- recognition of paramedics as key health professionals in the community.

The station manager and duty operations manager have been supported in the set up and facilitation of implementing Paramedic Connect at Coolah, with Nyngan, Baradine and Brewarrina Stations in the preliminary phases of set up.

We are creating closer links with small rural communities resulting in better health outcomes for patients.

Falls Referral

A referral pathway has been set up between NSW Ambulance and the Southern NSW Local Health Network Falls Prevention Program in the Bega Valley Shire.

NSW Ambulance have collaborated with the Southern NSW LHD (SNSWLHD) Network - Bega Valley Shire – to implement a falls prevention referral program with the purpose of identifying individuals meeting criteria in the Bega Valley community who are at risk of falling so they can be offered

access to falls prevention strategies. This recognises that local paramedics in the Bega Valley Shire respond to calls to assist people after they have fallen in their home or in the community and that in some instances individuals are not transported to the ED. The SNSWLHD Falls Network has identified individuals as “at risk population” and is working with the local paramedics to ensure referral to appropriate falls intervention strategies is facilitated.



Elder Abuse Awareness

Our changing patient profile means almost 50 per cent of the patients we respond to are 65 years and over, with some of these patients being our most vulnerable. A paramedic can be “the eyes and ears” for this group of patients, and as an organisation, we are one of the agencies responsible for identifying and

responding to the abuse of older persons. If elder abuse is suspected, the role of the paramedic will be dependent on the individual circumstances, but we will firstly ensure the older person is safe.

A component of the aged care theme for the 2015/16 scheduled training for paramedics includes a module on elder abuse.



The future

NSW Ambulance will continue to collaborate on primary and community health care options with the LHDs, non-government organisations and GPs through the Primary Healthcare Networks. The individual initiatives will require monitoring for effectiveness and appropriateness, as well as explore opportunity for expansion of initiatives.

Through the various integrated care initiatives and scheduled training modules on patient assessment, it is anticipated that our paramedics will be better prepared in their responses to these patients. In particular, an understanding of the complexities of the increasing chronic care needs of an aging population.

DECISION MAKING GUIDELINES FOR HEALTH AND AGED CARE FACILITIES

Evacuations are intensive activities that consume a large proportion of finite and already stretched resources. It has also been demonstrated from past experience that both nationally and internationally that the evacuation of those with significant health care needs, the elderly and frail has a detrimental and serious effect on their health.

Currently, evacuation planning activities for health and aged care facilities do not include those patients with significant health care needs. An evacuation decision making guideline is being developed for Health and Aged Care facilities in NSW to build resilience so they are not as reliant on emergency services in times of crisis.

The journey

With funding received from the State Emergency Management Committee, the project commenced in January 2015 with extensive research undertaken nationally and internationally into current practice and ideology on evacuations.

A steering group has been formed to lead the project and includes representatives from the peak bodies for the aged care sector, LHD disaster managers, the Director of the Health Emergency Management Unit and the State Emergency Operations Controller.

The Health Emergency Management Unit has undertaken workshops around the state with NSW Health, Aged Care and Emergency Service Organisations who have provided input into the development of the Evacuation Decision making Guidelines. To date, direct engagement has occurred with approximately 80 Residential Aged Care and Health Facilities (ACHFs) from both metropolitan and rural/regional areas at eight forums and two conferences.

A draft decision making algorithm has been formulated and has been distributed to the members of the steering group for comment and will be further workshopped with representatives of the emergency services and ACHFs.

The future

This project will produce a statewide systematic framework to inform NSW Health, ACHFs and emergency services on evacuation guidelines and build resilience for health and aged care services so they are not as reliant on emergency services in times of crisis.

This project will increase the resilience of Health and Aged Care facilities, decreasing reliance on emergency services during these times of crisis, which in turn will free up a larger pool of emergency resources for other tasks and decrease the negative health effects of the frail and elderly.

MACARTHUR LOW ACUITY ALTERNATE PATIENT DESTINATION PROGRAM.

Following the success of the NSW Central Coast Low Acuity Alternate Destination Model proof of concept, NSW Ambulance, South Western Sydney LHD and South West Sydney Primary Healthcare Network launched the Macarthur Program.

The Journey

In May 2015, intensive care paramedics (ICPs) from South West Sydney were invited to undertake training in comprehensive low acuity patient assessment and referral techniques, to enhance their already advanced clinical knowledge. The aim was to provide them the skills to successfully and safely assess, treat and refer to LHD facilities, such as, the Urgent Care Centre (UCC) at Campbelltown Hospital and the LHD Advanced Care Clinic in Oran Park.

Consultation with South West Sydney Primary Healthcare Network has gained momentum with a recruitment drive for local GPs to be included as part of the referral pathway for suitably identified patients. To date, 80 per cent of patients were successfully referred to an alternate destination to the ED and 100 per cent of patients enrolled were satisfied with the care they received; 100 per cent of patients were unaware NSW Ambulance's models of care allowed paramedics to treat and refer, and not transport directly to ED.

The Future

The program was presented to the NSW Ministry of Health – Whole of Hospital Program in February 2015 to showcase the benefits of the program and the success of collaboration with LHD's and PHCN's. Since this time discussions are underway with several LHDs and PHCN, with the Murrumbidgee Integrated care team looking to launch a similar program in the near future.

The true benefits of the program will be a greater response capacity of NSW Ambulance emergency fleet to the Campbelltown area, which has an expected population growth of 38 per cent by 2036. It will aim to continue to reduce case cycle times, reduce unnecessary pressure and presentations on the ED, and provide a long-term sustainable model of care that ensures the right patient receives the right treatment in the right place at the right time.



TURNAROUND TIME COLLABORATIVE PROJECT

Community demand for health resources is unprecedented. NSW Ambulance receives a Triple Zero (000) call every 28 seconds. Timely access to public hospitals is a critical focus of the NSW Health system and the timely transfer of care between NSW Ambulance and public hospital EDs is an important element in improving patient access to care and system wide performance.

The Turnaround Time (TaT) project commenced in December 2014 as a partnership between NSW Ambulance and the NSW Health Whole of Health Program (WOHP), aiming to develop a better understanding of the patient flow process between ambulance and hospital care, and identify opportunities to improve services and the experiences of patients and staff.

The journey

TaT is the time period from paramedics arriving with a patient at an ED to the same paramedics being clear and available to respond to the next Triple Zero (000) call. Responsibility for performance during this time interval is shared between NSW Ambulance and the Local Health Districts (LHDs).

The goal of the TaT project was to identify, design and implement system-wide solutions to reduce delays during transfer of patient care. The project adapted the

Whole of Hospital observational timeline study method that has proven to be reliable in identifying critical points in a process, including where and how long the key delays were occurring across the patient's journey through EDs. This included timeline studies at 15 hospitals, consultation with paramedics and Sydney Control Centre staff, and a WOHP stakeholder workshop with LHDs, the Agency of Clinical Innovation and other representatives.

The TaT Project identified the core elements and influencers impacting on ambulance turnaround times and opportunities for improvement.

The future

Feedback sessions with hospitals and NSW Ambulance are resulting in strategies to improve TaT. NSW Ambulance will continue the collaboration with the WOHP leaders and LHDs.

Timely access to public hospitals is a critical focus of the NSW Health system and the timely transfer of care between NSW Ambulance and public hospital EDs is an important element in improving patient access to care and system wide performance.



VOLUNTEER AMBULANCE OFFICERS AND COMMUNITY FIRST RESPONDERS

Our volunteers are based in rural and country areas throughout the state. They are trained in NSW Ambulance protocols and are highly skilled to respond to patients and deliver emergency medical care until paramedics arrive.

In 2014/15 NSW Ambulance received seven Emergency Volunteer Support Scheme grants to provide training and services for our Volunteer and Community First Responder (VCFR) units. Three of these grants provided a day's training followed by a day of scenario based Xtreme type exercises. Each of the conferences and exercises were represented by the NSW Ambulance Executive Leadership Team who actively integrated with the VCFRs, support station mentors and educators. The conferences were conducted at Goulburn, Crookwell, Coffs Harbour and Parkes.

We have 406 volunteers and 53 units throughout the state.



NSW Ambulance volunteer numbers have increased statewide. This year we have welcomed new volunteer units in Woolli, Culcairn, Henty, Thredbo and on Dangar Island.

We have reviewed our volunteers' skills and provided greater opportunities for additional training as well as enhancing their equipment. We have also enhanced relationships between our volunteers and other emergency service agencies.

Other initiatives for 2014/15 have included online modules for new VCFR applicants, revision of the VCFR specific protocols, skills review for integration of VCFR skills, community meetings for expansion of the VCFR program and close integration with state business units to ensure a seamless delivery of service for our rural and remote communities.



Future initiatives for our volunteers include access and egress initiatives relating to island based communities, providing Emergotrain kits and further online training opportunities, making it easier for volunteers to keep their skills up-to-date.

PARAMEDIC RESPONSE NETWORK

Planning for the next generation of NSW Ambulance response across Sydney is well underway. The \$169 million investment will strategically enhance NSW Ambulance station infrastructure across metropolitan Sydney and provide NSW Ambulance with the scope to provide a service that suits the needs of a modern, metropolitan community, improving services to patients.

The journey

Following the Minister's announcement in June 2014 committing to the construction of five "superstations", NSW Ambulance commenced work on designing the new stations with Health Infrastructure and user groups which included frontline paramedics and managers.

The superstations (Paramedic Response Centres) and associated Paramedic Response Points will collectively form the Paramedic Response Network (PRN).



The PRN will support a mobile paramedic workforce now and into the future and ensure NSW Ambulance resources are strategically located in the right place and able to deliver care in the right way, in the right time, every time.

In early 2015, a dedicated change team was appointed to ensure that the operational and business changes associated with the PRN are planned, coordinated, communicated and implemented effectively. The PRN change team recognises and are building on what already works well and enabling operational staff and managers to realise the operational benefits of the new stations.

Project streams have also commenced to develop and implement the various operational elements that will form part of this model. These will include a make ready model that will maximise the time available for paramedics to dedicate to performing clinical duties and implementation of dynamic deployment software to assist in allocating paramedics to areas of greatest need.



The future

A collaborative approach will continue to be applied to the remaining phases of the station design process, and construction at the five priority sites will commence in 2016. Concurrently, the PRN project streams will continue to develop new operational and business processes to complement the opportunities that new infrastructures provides, as well as enabling the next generation of paramedic practice underpinned by innovative and evidence based change.



The PRN model will support a mobile paramedic workforce now and into the future, ensuring NSW Ambulance resources are strategically located in the right places at the right times.

Rural Ambulance Infrastructure Reconfiguration Program

The Rural Ambulance Infrastructure Reconfiguration Program (RAIR), known internally within NSW Ambulance as Rural Ambulance Station Program (RASP), is a capital Ambulance program of work announced in May 2015.

\$122 million has been allocated for approximately 30 rural facilities. This initiative will have a major impact on both staff and patients in regional and rural NSW. At least 25 stations will be improved (major refurbishment or full replacement) with at least five more stations to be built in new locations. The upgrade represents the largest single program of work ever to take place on rural and regional NSW Ambulance services.

The journey

Funding for any large capital program can take years of strategic and clinical planning. The Asset Strategic Plan (which includes the Capital Investment Plan) is a document that demonstrates the 10 year forward plan for NSW Ambulance in relation to the alignment of business and assets.

At the start of 2014/15, funding was provided by the NSW Ministry of Health to commence planning for a rural infrastructure program. The process incorporate two already active projects, new stations located at Wagga Wagga and Kempsey. In addition, a statewide rural service planning framework was

developed that informed the breadth of asset improvement required.

As at June 30 2015, and following the announcement of the \$122 million funding, the service planning for the program was well advanced, with Health Infrastructure to manage the overall program.

The future

The next 12 months will see the development of the program-wide business case for submission to NSW Treasury and construction of Wagga Wagga and Kempsey facilities (note: Kempsey's funding is separate to the RAIR program). Health Infrastructure will also commence work on improvements at Berry, Harden and Molong Stations.

The planning horizon being considered extends well beyond 2025, allowing NSW Ambulance rural assets to respond to the future needs of the communities of NSW.



RAIR will have a major impact on both staff and patients, representing the largest single program of work ever to take place on rural ambulance services.



NEW BEGA AMBULANCE STATION

As part of the Rural Infrastructure Reconfiguration Program, NSW Ambulance replaced the existing ambulance station at Bega with a new facility, co-located within the grounds of the new South East Regional Hospital. The new station will provide an improved and more sustainable base, providing increased operational efficiency due to the space and facilities.

The journey

The original two storey brick ambulance station was constructed in 1954. The size of the existing station was unable to meet current and future service requirements. Construction of the new energy efficient station was completed in September 2014, with staff moving in October 2014.

The new station provides accommodation for administration, amenities and support facilities, a secure six car vehicle plant room and an internal wash bay with pressure washer, a maintenance and service bay, secure car parking for eight staff cars and two visitor car parks and disabled car park space.

The future

The new station will align with the new hospital which is scheduled for completion in 2015. The location of the station on the hospital site will provide opportunities for NSW Ambulance staff to integrate further with NSW Health staff, optimising their relationship and potential for joint educational opportunities in common training spaces.

The new station will address the changing patterns of future service delivery and demand.



Inform CAD Upgrade

Inform CAD is a project to deploy the latest available Computer Aided Dispatch suite of systems, including the Medical Priority Dispatch System (MPDS), the Mapping Systems and the underlying infrastructure in order to improve functionality and overall resilience on a more flexible application platform.

The journey

The upgraded CAD system is designed to take advantage of technology improvements in virtualisation, database technology and infrastructure to provide optimum levels of stability, performance and maintainability. Although the project has faced complex challenges, it is now at a point where an achievable schedule is published and work is progressing in line with this schedule.

The future

With the go-live date planned in February 2016, the new system will reduce the reactive work requirements of the System Support Unit (SSU) team and enable a degree of outage free maintenance not possible with the present deployment. Enhanced mapping capabilities will deliver significant improvement in call taking times, allowing ambulances to get to their destinations faster. The architecture will reduce both the number and length of outages, leading to a better ability to provide continuous service to paramedics and their patients.

STRYKER STRETCHERS

As part of our injury minimisation strategy Not One Not Ever, NSW Ambulance has begun incorporating hydraulic Stryker stretchers and power load units into new ambulance vehicles.

The journey

Following the successful trial of the new stretchers in Bankstown and Goulburn, 117 Stryker stretchers and power-load units were purchased. By June 2015, additional stretchers were purchased, with more than 180 ambulances equipped with the new stretcher and loaders.

The future

A number of funding arrangements are being explored to ensure that every new ambulance that is rolled out in the state is equipped with the new powered Stryker stretcher, with the aim of significantly reducing paramedic body stress injuries.



THE PEOPLE HUB

People Hub is responsible for NSW Ambulance rostering administration, time and attendance flow to Payroll, and supports staff in the use of multiple computerised applications.

The journey

The development of People Hub began in April 2014 with the aim of transitioning rostering and pay roll systems, and delivering user support materials, training and a customer service help desk for NSW Ambulance applications, including HealthRoster (the NSW Health staff rostering system); myShift (a portal for operational staff to access overtime, shift swaps etc.); and eTime (the electronic time and attendance system replacing paper timesheets).

The future

NSW Ambulance will transition administration and corporate staff to StaffLink (the NSW Health hosted payroll system) by October 2015, with operational staff following in early 2016.



ETIME: ELECTRONIC TIMESHEETS

StaffLink, the new payroll system, was coming, however StaffLink requires electronic time and attendance information, but paramedics and staff were still using paper timesheets. A gap analysis and a business requirement scoping exercise determined that a bespoke electronic timesheet solution was required.

eTime has made it possible for employees to complete their timesheets from any location with an internet connection. Timesheets now never get lost on their way to the pay office and leave requests never separate from the timesheet. Approvers can also action timesheets from any location, which supports a mobile health service that is eHealth enabled.

Streamlined auditing of timesheets against rostering data is now possible and with a significant increase in digital information we are able to build a better picture of our workforce.

The journey

Beginning in October 2014, phase one of the eTime project was to build a replica of the current timesheet to ensure readiness for StaffLink. UXC Red Rock was engaged to develop, host and support the eTime application which took shape over 14 weeks and was based on previously identified business requirements. eTime went live with some trial sites in early 2014. These sites included Urunga,

Broken Hill, Toronto, Avalon, Picton, Penrith and Naremburn. Feedback allowed the application to be tweaked, with the formal rollout commencing in April 2014.

The application was completely live with all employees paid using timesheets generated from the eTime system on 5 June 2015. On 30 June 2015, eTime transitioned to business as usual in the People Hub. The People Hub is a dedicated, permanent, in-house support team established specifically to support HealthRoster, eTime and StaffLink.

During the rollout, the eTime support team in the People Hub was built and knowledge transferred from the project team. Currently, a team of 10 support the application as part of the whole roster-pay process.

The future

The next phases of the eTime project will roll-out in 2016. This includes adding more facets to the system – including a dynamic Time Off in Lieu register and a link with HealthRoster.

eTime has made it possible for employees to complete their timesheets from any location with an internet connection.



THINK campaign

Manual handling is a significant part of the work undertaken by NSW Ambulance paramedics; which involves skill, strength and flexibility to work safely and prevent injury. Injuries can occur at any time and are not necessarily dependant on the weight and size of the object being handled.

Manual handling injuries are most frequently the result of a gradual accumulation of damage over time, due to poor posture, muscle weakness, using incorrect manual handling techniques, stress and degenerative wear and tear.

The THINK Campaign is an award winning innovative education and awareness campaign that reduces manual handling injuries to our valued frontline paramedics.

The journey

The concept of the THINK campaign was developed following data research and close consultation with the Work Health &

Safety (WHS) team, operational managers and local paramedics. It was important to understand what had been delivered in the past, what had worked, what had failed and how we could best improve on practices whilst learning from past mistakes.

Further to this, regular data analysis and monitoring of injuries and incident reports, including near misses, allowed the WHS coordinators to individualise activities to their local areas, and now work more closely with the local operational managers to ensure consistency and potency of messages delivered throughout the past year.

The figures show a reduction compared to 2013/14 as follows:

- reduction in overall injuries by 57 per cent and body stressing injuries by 50 per cent
- back injuries have reduced substantially and now only account for 22 per cent of all muscular injuries while lifting compared to 61 per cent
- a drop in muscular skeletal injuries of 26 per cent.

In December 2015, the NSW Ambulance THINK campaign won the coveted Safety Award for Innovative Design at the 2015 TMF Awards for Excellence.

The future

Although shoulder injuries have remained relatively steady, the campaign has resulted in the change of design of equipment, design such as vehicle

ergonomics, storage systems for equipment, development of a lighter first responder's kit bag and other exciting initiatives currently under development.

The THINK before you drive video received positive feedback from staff and initiated the development of a NSW Ambulance Safe Driver Framework which is currently being developed and is expected to be trialled in 2016.

Release of the final Think message, Think before you Work, will be delivered with the release of the NSW Ambulance Fitness to Function (F2F) document which forms part of the NSW Ambulance Fatigue Risk

Management System, which is an industry first evidence based program enabling consistent identification and management of fatigue.

The portability of this campaign makes it suitable for adaption across other areas of safety, as well as information sharing with other emergency service organisations.

The THINK Campaign is an award winning innovative education and awareness campaign that reduces manual handling injuries to our frontline paramedics.



PARAMEDIC ASSAULTS

In 2013 there was an alarming rise in the number of reports of paramedics being assaulted. NSW Ambulance has a number of support strategies to help staff if they are assaulted, including peer support, chaplaincy and the Employee Assistance Program. More recently, the NSW Ambulance Professional Standards Unit (PSU) has also provided a support function.

The process of reporting an assault to the NSW Police Force can be daunting, as can attending court to give evidence. Managers and PSU provide support by assisting paramedics to complete the relevant reports, accompanying them at court appearances, and keeping in touch with them and police to provide updated information, with the aim of reducing stress on our employees.

The journey

As a result of our Zero Tolerance policy, more paramedics are reporting assaults in the first instance to their duty operations managers (DOMs), followed by a report to police. The DOM immediately lodges a report through the chain of command and contacts staff to check on the paramedic's welfare.

PSU are experts in court and police processes, and in August 2014 commenced provision of a monitoring and advisory role to frontline staff and their managers.

PSU provides assistance by:

- liaising with the NSW Police Force after assaults are reported
- informing the affected staff about charges and providing updates on the progress through court
- providing process advice to paramedics if required to give evidence in court
- explaining court processes and the wide array of sentencing outcomes
- providing a monthly update to the NSW Ambulance Chief Executive and the NSW Minister for Health.

As a result of our zero tolerance policy, more paramedics are reporting assaults.

By 30 June 2015, 108 cases of the 166 cases reported in this 12 month period were finalised, with the remainder being investigated by police or before the courts.

The future

Affected paramedics will continue to be supported by their managers and the available NSW Ambulance support services. Any identified trends will be shared with the Service Delivery Directorate with the aim of reducing assaults.

NSW Ambulance is also planning to refresh and relaunch the "If you hurt a paramedic" campaign in 2016.



Fixed Wing Clinical Simulator

NSW Air Ambulance redesigned the delivery of practical based education to augment its already well-established flight nurse program through the design and implementation of a fixed wing clinical simulator in its Mascot facility.

Judicious use of simulation has been shown to positively impact directly on clinical care and is considered the gold standard of ensuring the development of a skilled and confident nursing workforce. With a sound suite of work instructions developed, the flight nurse faculty were able to employ a solid and evidence based approach to simulation education. This involved the development of a standardised scenario framework, expertise in briefing and debriefing as well as moulage and technical aspects. This now means that flight nurse educational practices are at the forefront of healthcare educational delivery.

The journey

Flight nurses are dual registered nursing and midwifery professionals who practice in and out of the hospital environment using NSW Ambulance protocols whilst functioning as civil aviation endorsed flight safety crew. Ongoing intense education requirements, therefore, require an innovative approach and design, ensuring professional registration standards are maintained and practice is embedded into what it means to be a NSW Ambulance flight nurse.

Using best education practice and quality assurance principles, the flight nurses expanded upon the experiential learning model of adult education. This required the design and production of a high fidelity clinical cabin simulator as an immersion learning tool. Whilst a highly realistic environment is beneficial, it is useless unless it is reinforced by a solid educational experience and expertise. A specialised flight nurse simulation faculty was established, with members of the team being made up of a tertiary qualified flight nurse educator and selected flight nurse education facilitators.



Judicious use of simulation has been shown to positively impact directly on clinical care and is considered the gold standard of ensuring the development of a skilled and confident nursing workforce.



With a sound suite of work instructions developed, the flight nurse faculty has employed a solid and evidence based approach to simulation education.



In The Community

patient centred, staff focused

SOCIAL MEDIA

It has been a dynamic year for NSW Ambulance across all social media platforms. This was due to an increase in our engagement with the community and the further implementation of campaigns. Our followers increased during 2014/15, increasing engagement across Facebook, Instagram and Twitter.

Is Your Urgency an Emergency?

We launched our winter campaign Is Your Urgency an Emergency? earlier in the year. This social media campaign was created to educate the public about when to call Triple Zero (000) and when other pathways may be a better option to ensure the best use of NSW Ambulance resources. During the three month campaign, we published more than 30 social media posts relating to the campaign, which consequently was seen by more than 1.5 million people on social media and generated more than 4000 new social media followers.

NSW Ambulance
Published by John Sirens (9) · 1 January · 16

How does your call measure on the urgency gauge?

Call Triple Zero (000) for help or emergency

Call Triple Zero (000) for help or emergency

Call Triple Zero (000) for help or emergency

Call Triple Zero (000) for help or emergency

Is your URGENT an EMERGENCY?

Christmas & New Year 2014

The holiday period is typically our busiest period, so during Christmas and New Year 2014 we published a series of educational posts to encourage members of the public to be aware of the dangers and risks associated with activities undertaken in the holiday period. We posted entertaining Christmas images, as well as educational posts to ensure the public understand how busy our Triple Zero (000) call takers and frontline staff are during this busy time.

NSW Ambulance
Published by John Sirens (9) · 1 January · 16

HAPPY NEW YEAR

It was another busy New Year's Eve for our frontline staff. We answered more than 2300 calls for help across the state between 4pm New Year's Eve and 3am New Year's Day... See More

Followers as of June 2015:



57,072



1989



16,319

Video content

Throughout the year, NSW Ambulance's promotion via the medium of videography increased. We posted more than 15 videos across our social media channels; with videos created, filmed and edited in-house, helping to generate further followers and educate the community about the work of NSW Ambulance.

We also launched NSW Ambulance TV as part of our Signature Behaviours campaigns, with more episodes planned in 2016.

SKY HEROES

Watch our NSW Ambulance Doctor and Flight Nurse manage flight emergency during a simulated training exercise. One of our NSW Ambulance Staff Specialists is playing the part of a pilot who has a medical emergency in flight.

COMMUNITY EDUCATION PROGRAMS

NSW Ambulance was involved in a range of activities in the community this year. On top of all the community requests for visits to pre-schools, retirement villages and culturally diverse groups, we have also seen an increased focus on a number of key programs in which NSW Ambulance played a significant part.

The Traffic Offenders Intervention Program

An educational pre-sentencing option for people who have committed a road offence, NSW Ambulance paramedics are involved in the program with the Police Citizens Youth Clubs NSW. We have seen a 20 per cent increase in presentations delivered compared to the previous year. This has resulted in the recruitment of 30 new paramedic presenters.

U Turn the Wheel

Delivering outstanding messages to high schools in the Sutherland Shire, the program educates pre-licensed and recently licensed students on road safety and the consequences of their actions. Statistically, the Sutherland Shire is seeing a decrease in youth motor vehicle tragedies than any other area in NSW.

Prevention of Alcohol Related Trauma in Youth (PARTY)

NSW Ambulance helps to deliver the pertinent message "Life Once, Think Twice" in a program run by the Royal North Shore

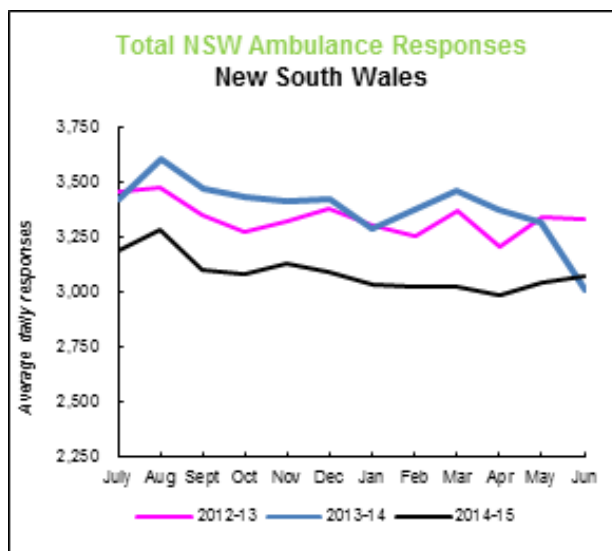
and Liverpool Trauma Hospitals. This forward thinking youth education program delivers a full day of presentations, hands on experience in occupational health, physio and real life scenarios unfolding in both the ED and Intensive Care Unit. The program has now been expanded to regional areas, including Lismore, Bathurst and Tamworth.

Be an Ambulance Hero (Dial Zero Zero Zero) and Emergency Helpers Programs

This NSW Ambulance program educates pre-school and primary school children on what to do in an emergency. Presentations are delivered by paramedics in their spare time.



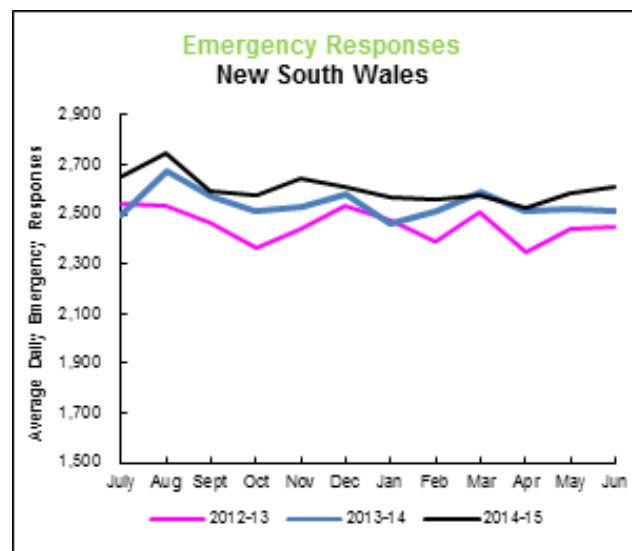
Ambulance activity



AMBULANCE ACTIVITY

The average daily number of ambulance responses decreased by 8.7 per cent over the past year. The primary factor contributing to this decreased total activity is due to the transfer of responsibility for a major part of the Non-Emergency (P5,6,7) activity to Health Share in May 2014.

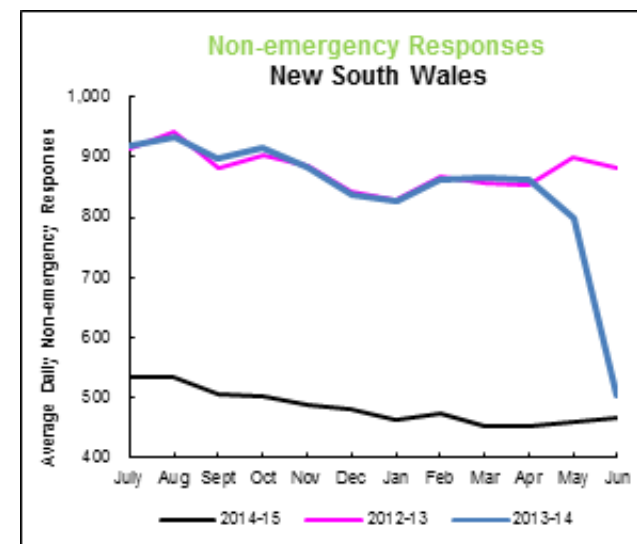
Total Activity In 2014/15, NSW Ambulance provided 1,127,545 total responses (both emergency and nonemergency) compared to 1,234,843 total responses in 2013/14. On average, there were 3,089 responses per day which is the equivalent to an average of one response every 27.97 seconds. The average daily ambulance responses by month are illustrated above.



EMERGENCY ACTIVITY

In 2014/15, the total number of emergency responses was 950,674 compared with 927,369 in 2013/14. The average number of emergency responses per day increased 2.5 per cent from 2,541 in 2013/14 to 2,605 in 2014/15.

Average daily emergency activity for the last three years is illustrated above.



NON-EMERGENCY ACTIVITY

Across NSW during 2014/15, NSW Ambulance provided 176,871 non-emergency responses compared with 318,070 in 2013/14. In 2014/15 there were 484 non-emergency responses per day, compared with 842 in 2013/14, a decrease of -42.5 per cent. This decreased non-emergency activity is primarily due to the transfer of responsibility for a major part of the Non-Emergency (P5,6,7) activity to Health Share in May 2014.

Average daily non-emergency response activity over the past three years is illustrated above.

