EXAMINATION OF AUDITOR-GENERAL'S PERFORMANCE AUDIT REPORTS MAY 2017 - DECEMBER 2017

Organisation:NSW HealthDate Received:21 February 2019



Mr Bruce Notley-Smith MP Chair Public Accounts Committee Parliament of New South Wales Macquarie Street SYDNEY NSW 2000

Our ref H18/102206

Dear Mr Notley-Smith

PAC Submission – Managing Demand for Ambulance Services

I refer to your letter seeking NSW Health's submission in response to the Auditor-General's performance audit report titled *Managing Demand for Ambulance Services in NSW* which was tabled in December 2017.

I am pleased to inform you that significant progress has been made by NSW Ambulance in implementing the recommendations of the audit. Of key importance, the development of a Demand Management Strategy has been completed and is now being used to guide initiatives to enhance NSW Ambulance's approach to managing demand for their services. For your reference, a copy of the strategy is enclosed with the attached response to the audit recommendations.

Additionally, in the past 12 months NSW Ambulance has also completed an evaluation of the services provided by HealthDirect in coordinating demand and has held monthly meetings of the Service Delivery Improvement Committee (SIDC), with a focus on reviewing those operational systems which are key to responding to a request for Ambulance services.

Further detail on these initiatives and on the additional work completed to implement each audit recommendation is provided in the attachment to this letter. Should you require further information, please contact Mr Paul Giunta, Director, Corporate Governance and Risk Management, NSW Ministry of Health at Paul.Giunta@health.nsw.gov.au or on 9391 9654.

Yours sincerely

Elizabeth Koff Secretary, NSW Health

> NSW Ministry of Health ABN 92 697 899 630 73 Miller St North Sydney NSW 2060 Locked Mail Bag 961 North Sydney NSW 2059 Tel. (02) 9391 9000 Fax. (02) 9391 9101 Website. www.health.nsw.gov.au

IMPLEMENTATION OF PERFORMANCE AUDIT RECOMMENDATIONS

NSW Health – Managing Demand for Ambulance Services

	RESPONSE	ACTIONS TO BE TAKEN	DUE	STATUS and COMMENT	RESPONSIBILITY
 Develop a demand management strategy that outlines its approach to managing demand. This strategy should include: Clear objectives and key performance indicators for demand management initiatives. Input from stakeholders in the health system and a continuing plan for collaboration with stakeholders. Planned approaches to communication with the public about demand management initiatives. 	Accepted	 ACTIONS TO BE TAKEN NSW Health supports the development of a demand management strategy for NSW Ambulance. NSW Ambulance will develop a demand management strategy that reflects the range of clinical demand management strategies, including: Working with internal and external stakeholders to ensure appropriate KPIs are developed Continuing to expand the number of LHD, PHN and NGO collaborators in developing demand management initiatives Developing a communication plan for the public on demand management initiatives 	Dec 2018	 STATUS and COMMENT Status: Completed Developed NSW Ambulance demand management strategy and established governance framework to ensure quality, efficiency and effectiveness of demand management strategies. Developed a suite of demand management project/programs Plans. Implemented a structured program evaluation methodology identified and adopted to evaluate all projects and programs. This allows for evaluate all projects and programs. This allows for evaluation of effectiveness, efficiency and appropriateness of initiatives using qualitative and quantitative measures and the in the introduction of mandatory project management framework (PD2018-026). Key demand management performance indicators (KPI's) have been developed. Key demand management KPIs are reported internally for example <i>Elder at Risk- P5 patients 65 and over for whom an elderly at risk assessment was conducted.</i> Frequent User Management Program KPI monitors reduction in the number of 000 calls from the Top 20 callers currently enrolled. This KPI is reported to the Ministry of Health via the Service Level Agreement. Developed a Statement of Collaboration that will formalise the approach to working with stakeholders including LHDs, PHNs and NGOs. As at October 2018, 10 LHDs and 3 PHNs have provided formal response. 	RESPONSIBILITY - Clinical Systems Integration - Finance Performance & Assets

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RECOMMENDATION	RESPONSE	ACTIONS TO BE TAKEN	DUE	STATUS and COMMENT	RESPONSIBILITY
				 implemented with various campaigns ongoing. The media strategies incorporated in the plan include: Language revision to align community expectations with paramedics expanding capabilities Developed Integrated care booklet to educate the community on the evolution of NSW Ambulance from focusing on acute care and transport, to a mobile health service Bear-a-medic program focused on school aged children Social media campaigns including "Is your urgency an emergency?" with a pre campaign online survey completed and post survey due 2019 NSW Ambulance website updated with relevant information for the community Ambulance Australia television documentary with expected results of increased understanding of Ambulance services and increased utilisation of alternative care providers Campaigns in progress "meet our paramedics", "Don't abuse a call taker", "Healthdirect stories" and Alternative care pathways In addition, NSW Ambulance continues to refine deployment of crews including via rostering practices, to better match paramedics to known demand patterns. 	

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	RECOMMENDATION	RESPONSE	ACTIONS TO BE TAKEN	DUE	STATUS and COMMENT	RESPONSIBILITY
.2.	Determine the data system improvements required to provide accurate oversight of demand management initiatives. This should enable routine monitoring and reporting of the activity and performance of these initiatives.	Accepted	NSW Ambulance will further develop the clinical Qlikview reporting tool to ensure it can report on the range of clinical demand management initiatives.	Dec 2018	 Status: Ongoing Data analytics sourced from Ambulance Intelligence Systems Data Mart (AISDM). Qlikview implemented December 2017. Qlikview allows for continuous and comprehensive data analysis used to guide demand management and service practices. A further upgrade to Qlikview has been identified as enhancing reporting capability, but is not critical to close out this recommendation. New eMR laptops and docks have been installed to every frontline, stretcher ambulance thus facilitating the recording of demand management pathways codes. Developed coding in e-MR for internal pathways complete. Business rules have been updated and aligned to eliminate interpretation variation, leading to consistency in data collection and reporting. 	- Clinical Systems Integration - Finance Performance & Assets
3.	Develop a strategy to guide the continued use of Extended Care Paramedics. This should include planning for how they are used and how their performance is measured	Accepted	NSW Ambulance will convene an ECP Workgroup to clarify the role of the ECP and how this critical position is incorporated. This will include both planning and measurement perspectives.	Dec 2018	 Status: Completed A senior strategic Extended Care Paramedics (ECP) work group formed and Co-Chaired by Executive Director Clinical System Integration and Executive Director Clinical Operations. Work plan generated to guide and track progress. Also completed Service Planning mapping for indicative ECP locations, rostering and approved deployment levels. The role of ECPs defined and documented. 	- Clinical Systems Integration - Clinical Operations

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RECOMMENDATION	RESPONSE	ACTIONS TO BE TAKEN	DUE	STATUS and COMMENT	RESPONSIBILITY
				 ECP Industrial Relations Committee established to provide advice on the ECP strategies/reforms initiatives which are sensitive and require strategic assessment/timing for implementation. Identified gaps in VACIS e-MR system and provided to development team to have added to the e-MR and scheduled for the next version release. This will enable a full suite of ECP skill/procedure and referral dispositions to be measured. Commenced development of Qlikview reporting of ECP activity, including non- transport decisions and patient referral pathways. ECP Governance and Education standards developed. Completed the development of the ECP performance measures and progressing to testing phase by Data analytics. Provided ECP's with mobile technology including smart phones and laptops with eMR VACIS capabilities. This allows for increased data capture and increased efficiency. Central Program Manager position established and implemented. Business case to increase ECP education to aide in the regular ECP training and certification requirements is contained as part of State-wide Workforce Enhancement Program (SWEP). The ECP work group have addressed and completed key areas, ongoing review and implementation has been transitioned to clinical operations oversight as part of business as usual. 	

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 	RECOMMENDATION	RESPONSE	ACTIONS TO BE TAKEN	DUE	STATUS and COMMENT	RESPONSIBILITY
4.	Evaluate its approach to using telephone referrals for managing less urgent demand for services	Accepted	NSW Ambulance will evaluate the approach to secondary triage in the first quarter of 2018.	Dec 2018	 Status: Completed Commenced ongoing formal evaluation of Healthdirect. Roadmap using Rigorous Program Management (RPM) methodology completed for 2017-18. Service Delivery Improvement Committee (SIDC) comprising NSWA and Healthdirect members provides governance for secondary triage processes. Monthly meetings of SIDC to plan and review operational systems, including clinical case review and performance monitoring. Monthly reporting and review of Healthdirect associated data including referrals and call return rates. Establish process for NSWA to monitor complaints regarding Healthdirect via incident information management system (IIMS). Established monthly Medical Priority Dispatch System (MPDS) Response Grid Quality Advisory Committee meeting to review Healthdirect activity performance reports. Healthdirect evaluation is complete and a report on the will be tabled at Response Grid Quality Committee meeting 12 February 2019. 	- Clinical Systems Integration

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RECOMMENDATION	RESPONSE	ACTIONS TO BE TAKEN	DUE	STATUS and COMMENT	RESPONSIBILITY
 Ensure paramedics are as well prepared as possible for their contemporary role by: (a) Strengthening staff performance and development practices to help paramedics develop their decision- making and communication skills. This could include introducing formal mentoring programs for paramedics. (b) Determining the mobile technology needs of paramedics to support their expanded decision making and assessment roles. 	Accepted	NSW Ambulance will develop a training package to be included into paramedic schedule training commencing January 2018. This program will focus on non-transport and patient referral clinical decision making supported by a prerequisite on line video and support materials. NSW Ambulance will strengthen Paramedic protocols to provide paramedics with an intuitive and realistic treatment and referral framework to support clinical decision making for managing patients with low acuity conditions. NSW Ambulance will develop Clinical Information Communication and Technology (ICT) Strategy. This Strategy will provide a "High Level Requirements and Design Components" to support development of an ICT solution for NSW Ambulance.	Dec 2018	 Status: Completed 5 (a) Implemented training package as part of paramedic scheduled training (2018-19) focusing on P5 and P2 non-transports and patient referral clinical decision making training (P5 is the protocol for patients for whom on scene treatment and referral is appropriate and P2 protocol is used in situations where the patient refuses paramedic advice and/or treatment decisions). YTD over 50% of paramedics have undergone CTP in 2018 n=1551. The e-MR replacement program has been completed resulting in 93% usage and significant decrease in use of Patient health care records (PHCR). New and revised suite of referral protocols issued to paramedics with a "go live" date of 1 December 2018. Developed on- line training courses for assessing Falls, elderly at risk, Hunter8 stroke score and Alternative referral pathways and up loaded on to the staff (Janison) education portal. Developed Clinical Information, Communication and Technology (ICT) Strategy and working with e-Health to identify the high level requirements, design components and implementation of an Integrated Care ICT solution that will enable paramedics to more effectively, efficiently and safely deliver patient centred and truly integrated mobile health care. The body of work includes telehealth and secure messaging solutions. Professional Development Plans reporting processes established. 	- Clinical Systems Integration - Finance Performance & Assets - Clinical Operations

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RECOMMENDATION	RESPONSE	ACTIONS TO BE TAKEN	DUE	STATUS and COMMENT	RESPONSIBILITY
				 Development of NSWA Clinical Operations Governance and Accountability Framework to guide management in accountability and outline obligations. National Paramedic Registration Scheme commences 1 December 2018 (Participation day) and recognises the need to ensure paramedics are suitably qualified to provide quality healthcare to the community Certificate to Practice (CTP) training package updated to include focus on alternative referral pathways and clinical reasoning. Paramedics supported in further education through various mediums including online training programs and videos, face to face sessions and Regional Educators. Dedicated project officers deployed to provide face to face education to increase knowledge and confidence in using alternate care pathways as part of the winter surge strategy. Introduced a clinical resource folder provided to all frontline vehicles with valuable clinical information including assessment tools, referral pathways and forms. Provides resources that paramedics can utilise to assist their decision making processes, enhancing clinical reasoning and patient safety. 	
				 5(b) Telecommunication Infrastructure Upgrade Program is ongoing and 340 mobile data terminals (MDTs) upgraded in Sydney fleet. Latest generation eMR laptop devices deployed to paramedics with 4G priority data. Integrated Care Information and Technology (ICT) Strategy developed. Information technology workgroup formed with 	

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RECOMMENDATION	RESPONSE	ACTIONS TO BE TAKEN	DUE	STATUS and COMMENT	RESPONSIBILITY
				 members of NSWA and NSW Health to guide eHealth advances. Commenced secure messaging pilot with Sydney North Primary Health Network (SNPHN) commenced to explore technological advances and utilisation in healthcare. The results will be analysed to inform future technology implementation into paramedic practice. Commenced rollout of statewide simulation strategy (over 5 years). This will include deployment of clinical simulation resources in ambulance stations across NSW, and development of a range of simulation-based training scenarios that are designed to embed clinical skills into practice. 	

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NSW Ambulance Demand Management Strategy

"Demand for ambulance services is increasing. It is important NSW Ambulance respond to this increasing demand, while maintaining patient safety standards and meeting community expectations." NSW Auditor General".



NSW Ambulance Demand Management Strategy Final October 2018



NSW Ambulance Demand Management Strategy

Background

This Demand Management Strategy specifically responds to the NSW Audit Office's Report to the Ministry of Health 'Managing demand for ambulance services' published 13 December 2017.

The audit assessed the extent to which NSW Ambulance's demand management initiatives have improved the efficiency of its services. To make this assessment the following questions were asked:

- 1. NSW Ambulance understands demand for its services and plans its operations accordingly.
- 2. Demand management initiatives are aligned with broader NSW Ambulance and NSW Ministry of Health strategies.
- 3. Demand management initiatives have been implemented and monitored well.

The audit method included data analysis, document review and meetings with staff from NSW Ambulance, the Ministry of Health, Local Heath Districts (LHD) and other stakeholders. The assessors also conducted a survey of NSW Ambulance Paramedics to understand their views on the use of demand management initiatives – over 500 paramedics responded to the survey. The audit is reported in subsections under the overarching title of 'Managing demand for ambulance services' as noted below:

- 1. Demand for ambulance services.
- 2. Initiatives to improve demand management.
- 3. Implementation of demand management initiatives.

Demand for ambulance services

The report noted that demand for ambulance services in NSW is increasing indeed growing at a rate higher than population growth has increased since 2012; demand for ambulance services has grown at a rate higher than the population growth rate. The report also noted NSW Ambulance has made several changes to remove large parts of its demand for its services, including moving non-emergency patient transport to a separate government agency and changing the way triple zero (000) calls are categorised. These changes have allowed NSWA to maintain its emergency response performance despite continued growth in demand for services and limited new resourcing.

Population growth and ageing are identified as the most significant causes of increases in demand for ambulance services, indeed this is true for all health services. Analysis of trends and forecasts for demand of services shows that the increase in demand is likely to continue as the population continues to grow and age.

NSW Ambulance Demand Management Strategy Final October 2018



Initiatives to improve demand management

NSW Ambulance has introduced several different approaches over the past decade whose aim was to reduce the number of unnecessary ambulance responses and unnecessary transport to hospital emergency departments.

The report assessed three specific initiatives introduced:

- Healthdirect telephone advice line;
- Introduction of non-emergency department options for paramedics to use;
- Extended Care Paramedics (ECP).

These initiatives are in existence in other high performing ambulance services around the world and been used with good effect in their primary role of improving timeliness of service by preserving emergency response resources for the sickest patients and improving patient safety. Additionally they have a whole of health system benefit by diverting non life threatening patients aware from hospital emergency departments.

Implementation of demand management initiatives

The report notes NSW Ambulance has introduced initiatives to change the way it manages demand from patients who have less urgent medical issues. The assessors noted the potential for these initiatives to achieve positive results, but were unable to fully assess their impact because of weakness in data systems and monitoring. A number of issues were noted in the implementation of the strategy as outlined below:

- Reasons for NSW Ambulance changing its approach to demand management has not been proactively communicated to the community.
- There are no clear performance measures or targets.
- Project management of new initiatives has been inadequate with inadequate organisational resources to oversee them.
- There are gaps in oversight of the risks of some initiatives introduced, particularly lack of information on the outcomes of patients who are not transported to hospital.
- Weaknesses in the way NSW Ambulance uses its data limit its ability to properly assess the risks and evaluate the demand management initiatives introduced.
- Up to date technology would help paramedics make better decisions and improve NSW Ambulance's ability to monitor demand management activity.

Objectives

This Demand Management Strategy aims to provide a framework for the effective management of the three specific identified demand management initiatives: Healthdirect; Non-emergency department options for paramedics and Extended Care Paramedics. This strategy plays a NSW Ambulance Demand Management Strategy Final October 2018



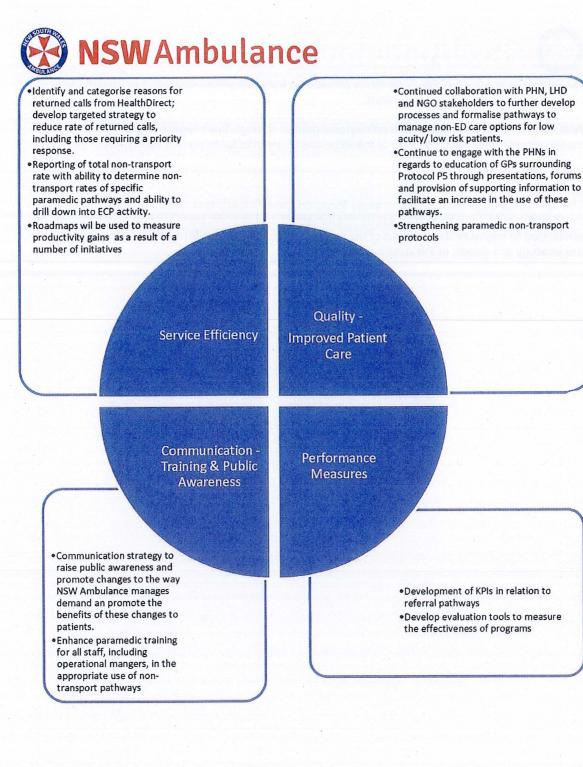
pivotal role in ensuring NSW Ambulance provides a truly integrated approach to patient care, inclusive of the broader health system.

While it should be recognised that efficiencies gained through the integrated care demand management initiatives cannot be at the expense of unacceptable patient safety risk.

Domains

The key areas addressed in this strategy focus on the efficiency and quality of service provision, an effective communication plan will be implemented and specific performance measures will be developed to measure the success of the strategy; the key themes for each of these domains of the strategy are shown in the diagram below.

NSW Ambulance Demand Management Strategy Final October 2018



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Authorising Environment

The authorising environment supporting this Demand Management Strategy is specifically underpinned by NSW Health's support of the recommendations contained within the Final Performance Audit report – Managing Demand for Ambulance Services. Strategically, these recommendations are broadly aligned to the following: NSW Health Strategic Priorities 2017-2018, NSW Health - Leading Better Value Care Program, NSW Aboriginal Health Plan 2013-2023, NSW Ambulance Strategic Priorities 2018-2019 and the Clinical Section of the NSW Ambulance Enabling Plan.

Within NSW Ambulance on-going governance arrangements overseeing progress of the audit report's recommendations will be via Clinical System Integration (CSI) monthly reports to the Executive Leadership Team.

Program evaluation

NSW Ambulance is committed to research and evaluation to provide an evidence base for the development of effective demand management strategies. Evaluation plays a key role in supporting demand management program decision making by assisting NSW Ambulance understand whether its suite of demand management programs are working, in what context, when it's not, and why. A well planned and executed evaluation provides evidence for improved program design, delivery and outcomes.

Program evaluation of NSW Ambulance demand management programs has adopted the model developed by the Agency for Clinical Innovation (ACI) that defines program evaluation as a systematic process designed to examine the worth of a program or project in terms of effectiveness, efficiency and appropriateness¹. ACI refers to programs such as Models of Care (MoC), Clinical Pathways and Guidelines and other innovations and interventions aimed at improving health outcomes as examples whereby the ACI evaluation methodology is most useful by essentially asking questions of programs such as:

- Do they meet the needs of the community?
- · Are they achieving their intended outcomes?
- Or producing unintended outcomes?
- Is there a better way of achieving those outcomes?
- · Are they aligned to current Government priorities?
- · Should they be continued, expanded, modified or discontinued?
- Can resources be allocated more efficiently?

The evaluation of the NSW Ambulance demand management programs uses a mixed-methods approach. The qualitative and quantitative components are tailored to address the aims of the evaluation and to collect information about specific program areas. For example, a number of formal Key performance indicators (KPIs) are contained within NSW Ambulance and Ministry of Health's Service Level Agreement that measure the improvement in the efficiency of service provision against agreed targets and to show the tangible benefits of the program areas.

NSW Ambulance Demand Management Strategy Final October 2018



NSW Ambulance has a massive quantity of data about service provision that is collected daily and continual improvements in the collection and analysis of NSW Ambulance data allows the strategy to be more easily measured, this includes:

- Reporting function incorporated into Qlikview Clinical Dashboard to improve ability to monitor the impact of demand management initiatives
- Review of data linkages to monitor risks associated with non-transport options

NSW Ambulance demand management program plans provides the project/program evaluation methodology for each strategy.

Scope

Out of scope:

- Emergency ambulance response time, this is currently monitored and reported to MoH.
- Communication strategy will be exclusive of communication to third party referrals regarding demand management initiatives.
- Effectiveness of partner organisations dealing with increased demand as a result of NSW Ambulance initiatives.

This strategy is dependent on sufficient capacity within partner organisations e.g. HealthDirect, LHDs, NGOs etc. to manage the potential increase in demand generated by NSW Ambulance demand management initiatives both in terms of quality and quantity of services. Whilst there is limited targeted funding to LHD/NGO partner organisations to support alternate referral pathways e.g. to support expansion of GP practices or incentivise efficient use of demand management initiatives, NSW Ambulance demand management initiatives are funded within current budget.

A review of contractual arrangements with Health Direct may need to be considered to incorporate requirements relating to feedback on health outcomes of patients referred for telephone advice and the reasons that a proportion of patients are returned to the call centre after being referred to HealthDirect.

Additionally, the pool of patients who have conditions amenable to management under low acuity pathways is finite. Whether or not a non-transport/ referral decision can be effected in any given case depends primarily on the acuity of the patient's presentation, the social circumstances of the patient at the time of the incident, and the availability of referral options.

NSW Ambulance Demand Management Strategy Final October 2018



Audit Office NSW Recommendations and NSW Health Supported Actions

The report has made five recommendations as a result of the review undertaken and recommended that these are implemented by December 2018. Summary of recommendations noted in the table below.

#	Recommendations	NSW Health Supported	NSWA Lead Business Unit Responsibility
1	 Develop a demand management strategy that outlines the approach to managing demand 1.1 Set clear objectives and key performance indicators for demand management initiatives 1.2 Input from stakeholders in the health system and continuing plan for collaboration with stakeholders 1.3 Planned approaches to communication with public about demand management initiatives 	 NSW Ambulance will develop a demand management strategy that reflect the range of clinical demand management strategies including; Working with internal and external stakeholders to ensure appropriate KPIs are developed Continuing to expand the number of LHD, PHN and NGO collaborators in developing demand management initiatives; 	Clinical Systems Integration Directorate in consultation with Clinical Operations Directorate, Service Planning and Data and Analytics Units Clinical Systems Integration Directorate Clinical Systems Integration Directorate
		 Developing a communication plan for the public on demand management initiatives. 	Engagement & Corporate Governance Directorate - Marketing, Communications and Public Affairs Unit in consultation with Models of Care

NSW Ambulance Demand Management Strategy Final October 2018



	Data system improvement		
2	2.1 Determine data system improvements required to provide accurate oversight of demand management initiatives	NSW Ambulance will further develop the clinical Qlikview reporting tool to ensure it can report on the range of clinical demand management initiatives	Finance, Performance and Assets Directorate - Data and Analytics Unit
	2.2 Enable routine monitoring and reporting of activity and performance of the initiatives		
	Extended Care Paramedics		
3	3.1 Develop a strategy to guide the continued use of ECPs, including planning for how they are utilised and how their performance is measured.	NSW Ambulance will convene an ECP Workgroup to clarify the role of the ECP and how this critical position is incorporated. This will include both planning and measurement perspectives.	Clinical Operations and Clinical Systems Integration Directorates in consultation with Data and Analytics Unit
4	Evaluation of telephone referrals for managing less urgent demand for services	NSW Ambulance will evaluate the approach to secondary triage in the first quarter of 2018. This evaluation with provide a pathway to a renewed secondary triage contract with Healthdirect by 30 June 2018. A program of continuous improvement for the system over the course of 2018 will be established with consideration of the evaluation outcomes, stakeholder engagement and data analysis.	Clinical Systems Integration Directorate (Clinical Medical Records & Dispatch Standards Unit) in consultation with Clinical Operations (Control Division) and Data and Analytics Unit
5	Ensure paramedics are prepared for their contemporary role 5.1 Strengthening staff performance and development practices to help paramedics develop their decision making and communications skills. This could include introducing formal mentoring programs for paramedics	 NSW Ambulance will develop a training package to be included into paramedic scheduled training commencing January 2018. This program will focus on non- transport and patient referral clinical decision making supported by a prerequisite on-line video and support materials. 	Clinical Systems Integration (Education and Models of Care)

NSW Ambulance Demand Management Strategy Final October 2018

NSW Ambulance				
	5.2 Determine the mobile technology needs of paramedics to support their expanded decision making and assessment roles.	 NSW Ambulance will strengthen Paramedic protocols to provide paramedics with an intuitive and realistic treatment and referral framework to support clinical decision making for managing patients with low acuity conditions. NSW Ambulance will develop clinical information, Communication and Technology (ICT) Strategy. This Strategy will provide "High Level Requirements and Design Components" to support development of an ICT solution for NSW Ambulance 		

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