



# Appendix two – About the audit

---

## Audit objective

This audit assessed the extent to which NSW Ambulance's demand management initiatives have improved the efficiency of ambulance services.

## Audit questions

The audit questions and criteria for this audit were:

1. Are demand management initiatives integrated with broader NSW Ambulance and Health strategies?
  - a) Demand management initiatives are integrated with relevant NSW Ambulance strategies and programs
  - b) Demand management initiatives align with relevant NSW Health strategies and programs
  - c) KPIs for demand management initiatives are clear and measurable and drive the efficient use of ambulance resources.
2. Does NSW Ambulance understand demand for its services and plan its operations accordingly?
  - a) NSW Ambulance's workforce profile matches expected demand for services
  - b) NSW Ambulance has the resources and technology to manage demand for ambulance services
  - c) Ambulance services are organised to respond to expected demand.
3. Are demand management initiatives implemented and monitored well?
  - a) Dispatch systems support good decision making about responses to requests for ambulance services
  - b) Paramedics have enough guidance and skills to make decisions about patient referral or treatment
  - c) The impact of referrals to other health or human services on efficiency is monitored effectively
  - d) NSW Ambulance's demand management initiatives compare well with other similar jurisdictions.

## Audit scope

The audit assessed:

- Ambulance call and dispatch systems
- NSW Ambulance and NSW Health strategies and programs for demand management
- Key performance indicators for demand management initiatives
- NSW Ambulance workforce profile, resources and technology for responding to ambulance demand
- Ambulance process for referrals to other services
- Paramedic skills and decision making for responding to ambulance demand
- Demand management initiatives in other ambulance jurisdictions.

The audit did not assess:

- transfer of care of patients at hospital emergency departments
- clinical outcomes for ambulance patients
- aeromedical services (helicopter and aeroplane ambulance services).

## Audit approach

Our procedures were:

1. Reviewing documents that cover topics including:
  - Organisational objectives, strategic plans and performance targets
  - Long-term and short-term operational planning
  - Demand management initiatives, including any business cases, evaluations, etc.
  - Workforce management and training
  - Resource management, e.g. ambulance stations, vehicles, equipment and technology.
2. Analysing data including:
  - Ambulance response times, by triage category, time and location
  - Number and type of ambulance dispatches and calls referred to other telephone service, by triage category, time and location (including data on changes to triage category and outcome of the referral)
  - Number and type of cases involving treatment at the scene or referral to another service, by triage category, time and location (including data on length of time taken to treat/transfer and outcome of the referral)
  - workforce data that relates to demand management initiatives
  - other relevant service data relating to demand management initiatives.
3. Interviewing staff including:
  - NSW Ambulance and Health executive staff
  - NSW Ambulance and Health management staff involved in ambulance strategic planning and policy
4. Surveying NSW Ambulance paramedics on issues including:
  - changes to their role in providing a wider range of services for patients
  - their level of confidence in using non-emergency department options such as referring patients to other health services
  - barriers preventing them from using non-emergency department options
5. Consultation with NSW Ambulance operational managers (including site visits) to identify frontline staff views on:
  - parts of ambulance response processes where efficiency improvements are most needed
  - positive and negative impacts of demand management initiatives.
6. Consultation with other stakeholders including:
  - other government departments that provide services that connect with ambulance services
  - paramedic representative groups, including professional bodies and unions
  - academics with expertise in ambulance and emergency health services
  - other jurisdictions for comparison and good practice examples.

The audit approach was complemented by quality assurance processes within the Audit Office to ensure compliance with professional standards.

## Audit methodology

Our performance audit methodology is designed to satisfy Australian Audit Standards ASAE 3500 on performance auditing. The Standard requires the audit team to comply with relevant ethical requirements and plan and perform the audit to obtain reasonable assurance and draw a conclusion on the audit objective. Our processes have also been designed to comply with the auditing requirements specified in the *Public Finance and Audit Act 1983*.

## **Acknowledgements**

We would like to acknowledge the assistance of our audit liaison officers at NSW Ambulance and the NSW Ministry of Health. The Bureau of Health Information shared unpublished data from its analysis of NSW Ambulance performance data which underpinned important parts of the analysis in this report. We also thank staff at NSW Ambulance, the NSW Ministry of Health, Local Health Districts and other stakeholders who gave their time to participate in interviews and provide documents and data.

## **Audit team**

The audit was conducted by Alex Kaiser and Alana Shepherd Cooper. Expert advice and data analysis was provided by the NSW Data Analytics Centre. Oversight and quality assurance was provided by Kevin Hughes and Claudia Migotto.

## **Audit cost**

The cost of the audit was approximately \$410,000 including overheads and travel costs.