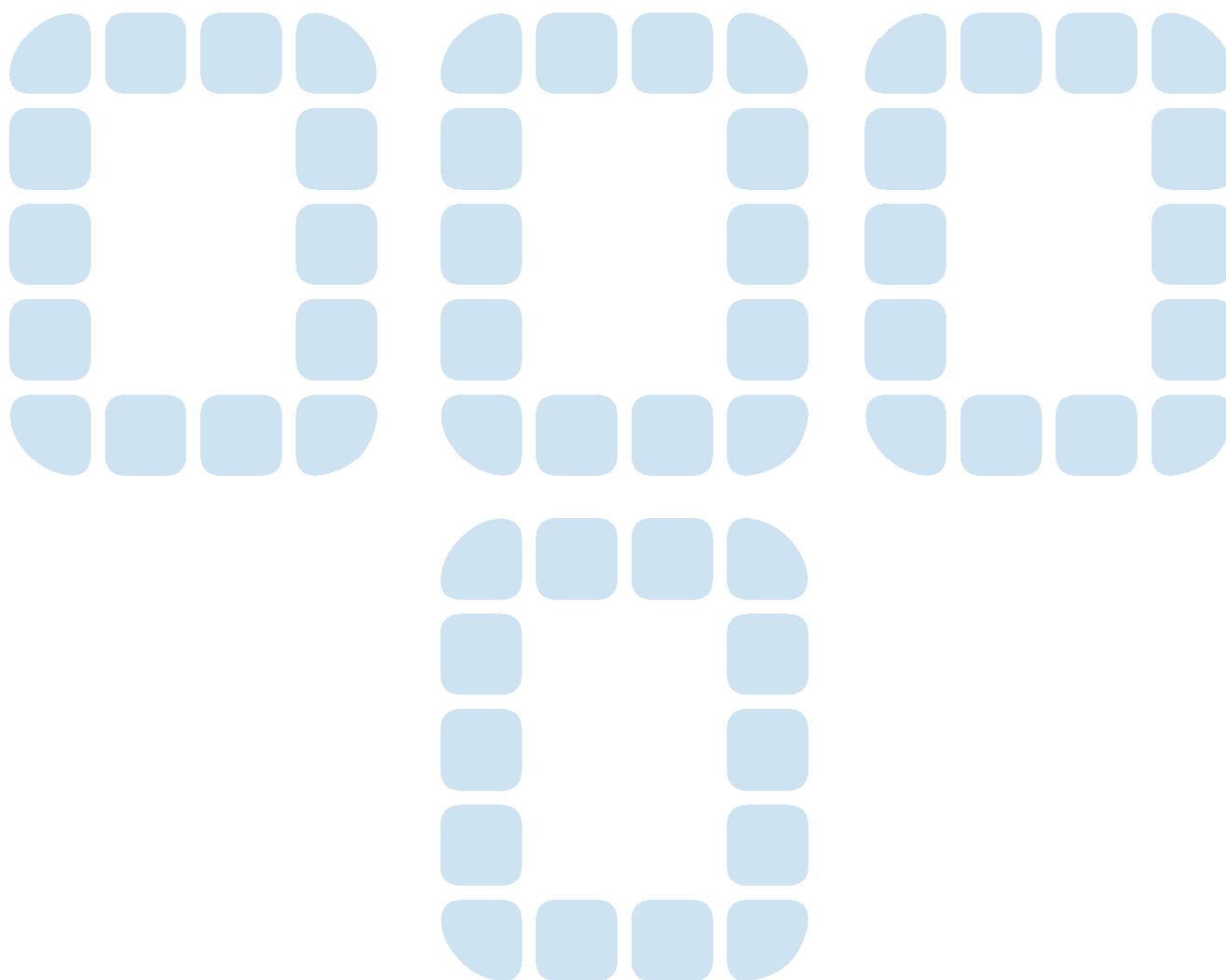




Government of Western Australia
Department of Health

St John Ambulance Inquiry

Report to the Minister for Health
October 2009



Department of Health
189 Royal Street
East Perth WA 6004

TABLE OF CONTENTS

FOREWORD.....	iv
EXECUTIVE SUMMARY.....	6
RECOMMENDATIONS.....	7
THE INQUIRY PROCESS.....	11
MAJOR THEMES FROM SUBMISSIONS AND CONSULTATION.....	13
OVERVIEW OF EMERGENCY AMBULANCE SERVICES IN WA.....	15
INVESTIGATION OF CRITICAL INCIDENTS.....	21
INVESTIGATION OF THE COMMUNICATION CENTRE.....	23
STAFFING, TRAINING, PRIORITISATION OF CALLS AND PROCEDURES.....	33
CLINICAL GOVERNANCE PROGRAMS.....	40
COMPLAINT MANAGEMENT SYSTEM.....	51
OTHER CONSIDERATIONS.....	54
THE WAY FORWARD – AN IMPLEMENTATION PLAN.....	61
APPENDIX 1: LIST OF STAKEHOLDERS.....	62
APPENDIX 2: ST JOHN AMBULANCE DEPOTS (METROPOLITAN).....	64
APPENDIX 3: USER COSTS.....	65
APPENDIX 4: RCA RESULTS.....	67
APPENDIX 5: STAFF QUALIFICATIONS.....	73
APPENDIX 6: SENTINEL EVENT PROCESS.....	74
APPENDIX 7: ASSESSMENT OF CLINICAL GOVERNANCE STANDARDS.....	75

FOREWORD

Hon. Dr K. D. Hames MLA
Deputy Premier of Western Australia
Minister for Health; Indigenous Affairs
Governor Stirling Tower
197 St George's Terrace
Perth

Dear Minister

Every person in Western Australia has an expectation that when they call an ambulance in an emergency it will come quickly and get the patient to hospital as soon as possible. It is often a matter of life and death. The primary focus of this review has been on achieving better outcomes for patients. This emergency medical service has been provided by St John Ambulance (SJA) since 1922. SJA is a not for profit organisation with an outstanding record in service to humanity and forms part of the culture of Western Australia. It is a very proud tradition boosted by the contribution of so many volunteers particularly in country areas and over such a long time.

The Four Corners program "Out of Time" in July of this year detailed four deaths resulting from inadequate responses by the ambulance service that required immediate investigation and response to ensure SJA continues to provide the service all Western Australians expect. The program was fair and Western Australians are grateful for this insight.

The national figures conclusively show that SJA has the most efficient ambulance service model in Australia and has saved this State substantial funds over the last century. The figures show that Western Australian taxpayers per capita have paid about one quarter to a half that of taxpayers in other states for the same level of service. However gaps are beginning to appear and changes need to be made. It is now time the State increases its funding to SJA to ensure it continues to provide an excellent service.

Much has been said about a 'state run' service model but the evidence suggests that all other jurisdictions in Australia which have state run models are beset with similar problems to the SJA model and at twice the cost. Indeed all of the indicators show that Western Australia is performing very highly in the comparative analysis. An ambulance service can do things right nearly all of the time but still be criticised when mistakes occur because of the grave consequences.

The Inquiry acknowledges the significant contribution to the Report by the paramedics. At all times they conducted themselves in a professional manner and focused on better outcomes for patients.

Six major issues emerged during the Inquiry:

- Clinical governance issues in respect of practice guidelines, an independent sentinel reporting mechanism and audit, and a structured process in the communication centre;
- The operations of the communication centre;
- Inadequate resourcing in respect of paramedics, transport officers and communication centre staff, ambulances and patient transfer vehicles, and training;
- The inefficiency and frequency of ambulance 'ramping';
- The lack of support and coordination of the volunteer system in country areas; and
- The impairment of the ambulance service by the demands of the hospital patient transfer system.

All of these issues are dealt with in the Report.

In addition there was a range of other related issues that were raised during the Inquiry and have been considered in the Report. Many of these require further work to enable proper decisions to be made.

This Inquiry was only of twelve weeks' duration, designed to quickly identify the major issues and provide practical solutions and an immediate improvement in the level of the emergency medical service in Western Australia. Unfortunately ambulance jurisdictions in Australia, including Western Australia, are beguiled by many lengthy reports and little action. There is always the risk this will happen with this Report.

Minister, the recommendations in this Report have been kept to the minimum to ensure they can be implemented within a reasonable timeframe. If you agree to the recommendations it is proposed that there be an implementation period of twelve months, by a small team consisting of officers from the Department of Health, SJA and the paramedics with a requirement that the recommendations be fully implemented within the twelve month period.

There was an overwhelming response to this review with over 130 submissions received from the general public and stakeholders. The review team is grateful for the contributions made by all parties particularly the paramedics, the Liquor, Hospitality and Miscellaneous Union and SJA. A great deal of goodwill was shown by all and a commitment to work together to resolve the many issues that need attention. We thank all the officers in the Department of Health who worked on this Report and in particular, the Director General, Dr Peter Flett who ensured the Inquiry was well resourced, the Chief Medical Officer, Dr Simon Towler whose expertise in emergency medicine is outstanding and Cathy Campbell who was responsible for its skilful compilation.

Yours faithfully



Greg Joyce
Independent Chairman
Western Australia

23 October 2009

EXECUTIVE SUMMARY

On 6 July 2009, the ABC Four Corners television program revealed four patients had died after inadequate responses by ambulance services. The Minister for Health announced that the State Government would conduct an independent inquiry into the safety and quality of clinical practices at St John Ambulance Australia – WA Ambulance Service Inc. (SJA). The Inquiry was to make recommendations to enhance and improve emergency ambulance services in Western Australia (WA). This provided a unique opportunity to address emergency ambulance service issues and position the service in line with the most up to date practices.

SJA is well established as the primary provider of road ambulance services in WA, having been in operation in this state since 1922. SJA provides these services under a contract with the Department of Health (DoH). Emergency ambulance services in WA were provided to approximately 180,000 patients last year.

The valuable role played by those involved in the provision of emergency ambulance services and the high activity levels of SJA are recognised and acknowledged. The delivery of emergency ambulance services has consistently challenged jurisdictions, as evidenced by the fact that most states in Australia and several developed countries have conducted reviews of their services in recent years. Governance, service delivery systems and funding mechanisms are highly variable between jurisdictions. One factor which is consistent, however, is the close working relationship between the health and ambulance sectors.

Whilst strategies are being developed to reduce demand on ambulance facilities, pressures on the system, particularly as the population grows and ages, are increasing demand for these services. In order to ensure that DoH is able to gain maximum value for the investment provided, a primary goal is to strengthen relationships, not only between the health and ambulance sector but also internally within SJA.

Overall, SJA is meeting its contractual requirements with DoH, and in many performance areas, is exceeding requirements. Western Australians can be assured the system is effective, however the Inquiry noted several areas necessitating urgent attention moving into the next contract period.

To meet increasing demand for ambulance services while continuing to ensure the highest levels of patient safety, recommendations for immediate action and medium term action have been identified and implementation of these will require ongoing commitment to this area of work, and in some instances, will require further resources.

Four patient deaths referred to on the Four Corners program were investigated. The outcomes of three of the investigations are described in this report. The fourth investigation, involving more complex issues, was not completed in the timeframe for the Inquiry and will be the subject of an additional report to the Minister by the end of November 2009.

In presenting this report, the Inquiry takes the opportunity to acknowledge all those individuals, within both SJA and in the ambulance and health systems, who not only gave their time to this important review, but also willingly shared information and expertise. Their commitment and contribution to the delivery of ambulance services in WA is unrivalled and the recommendations of this report are a direct result of their efforts and their input.

RECOMMENDATIONS

To meet increasing demand for ambulance services while continuing to ensure the highest levels of patient safety, the Inquiry has made recommendations for immediate attention.

The Inquiry found that the model of an external service provider rather than a state run system was considered the most cost effective for WA.

Recommendation 1

Endorse the continuation of the existing service model, namely the provision of emergency ambulance services by an external provider.

The investigation into the patient death incidents involved a comprehensive and methodical analysis of facts to identify root causes or contributing factors. The investigations focused on system issues, and the subsequent recommendations contain strategies to minimise or eliminate the occurrence of similar events in the future.

Recommendation 2

Implement, as a matter of urgency, all recommendations (both general and specific) emanating from the Root Cause Analysis process.

The Inquiry found major inadequacies in the communication centre with a focus on operations, rather than patients. Improvements to staffing levels, training programs, performance management and the clinical governance system will all improve the link between clinical policies and operations, resulting in benefits to patient care and clinical outcomes.

Recommendation 3

Improve the response capacity of the SJA communication centre through:

- Increased staffing levels of call takers and other key communication centre personnel;
- A staff performance management and development program with individual plans for all officers;
- A review of training and continuing education, specifically in relation to standards and guidelines for questioning callers, prioritisation, pre-arrival advice, and call card documentation;
- Examining the feasibility of splitting calls between '000' and other calls;
- Considering the geographical split between metropolitan and country regions;
- Requesting SJA to remedy the 'freezing' of the Computer Aided Dispatch network immediately; and
- A quality audit of calls against specific standards and guidelines.

There are mixed views about structured call taking and a number of systems are available. A review is being finalised in NSW and further work is required in WA.

Recommendation 4

Investigate further the feasibility of introducing structured call taking in the communication centre.

SJA has, to date, provided the least costly ambulance service in Australia. Increased population growth and increased demand are negatively impacting on response times, both in the metropolitan area and in the country. Sustained capacity to deliver a cost effective service will ensure the service meets demand.

Funding arrangements are required that take into account the demand and delivery pressures experienced by this critical care service.

Recommendation 5

Invest in ambulance service infrastructure—both staff and capital—to ensure an appropriately responsive and sustainable service.

Country areas utilise a largely volunteer model and have unique needs. Changes in demand and population growth have stretched the country system to its capacity.

While it is acknowledged that other recommendations, particularly those relating to the communication centre and infrastructure, will have a positive impact on country ambulance services, each region requires closer scrutiny and an appropriate service delivery model developed, based on local requirements.

Recommendation 6

Ambulance needs in country areas to be the subject of further assessment.

Training and ongoing development of staff are important elements that underpin the SJA workforce. Clinical practices are continually advancing; however, many officers have not had refresher training for two years.

Recommendation 7

Expand the existing continuing education program to enable all paramedics, transport officers and volunteers to have their skills updated.

The most contentious area among paramedics participating in the Inquiry centred on clinical governance. Clinical governance forms the cornerstone of SJA's operations. The process of developing a robust clinical governance structure is critical and requires the full engagement of paramedics.

Recommendation 8

SJA develop and implement clinical governance structures and processes that align with the Strategic Plan for Safety and Quality in Healthcare 2008–2013 and the WA Clinical Governance Framework.

Review of rare adverse events that lead to serious patient harm or death and that are caused by the delivery of healthcare form part of a continuous improvement approach to safety and quality in patient care. SJA has an internal system but, by reporting to an external clinical review group and having 'sentinel' events investigated, SJA can enhance their clinical governance practices.

Recommendation 9

SJA notify and report sentinel events to DoH's Director Office of Safety and Quality in Healthcare.

To recognise paramedics as a professional group and ensure accountability for their activities, a registration scheme would enhance quality standards and support robust clinical governance. There is currently no registration body.

Recommendation 10

DoH pursues, through the Australian Health Workforce Ministerial Council, the national registration of paramedics.

Patients and clients using SJA emergency ambulance services should be encouraged to articulate their concerns and SJA should look for ways to improve pre-hospital healthcare provision. The current SJA system is not readily accessible to clients.

Recommendation 11

Strengthen the capacity of the complaints system including a statement of principles, establishment of a helpline and online complaints registration.

A range of other issues, many of which impact directly on the existing ambulance service, were brought to the attention of the Inquiry.

Recommendation 12

During the implementation phase, further work to be undertaken in the following areas:

- Alternatives to Emergency Department attendance
Strengthen the role played by *healthdirect* in the management of non-urgent Priority 3 calls.
- Helicopter service
Review the tasking process to ensure that this resource is properly utilised.
Examine in more detail the proposal of CareFlight to provide a critical care helicopter service to the Southwest Region.
- Legislation
Pursue the implementation of State legislation to control the operations of the existing ambulance service.
- Inter-Hospital Patient Transport (IHPT)
Examine the separation of IHPT tasking from the emergency tasking process.
Examine opportunities to streamline the current IHPT processes.
Examine the possibility of a computerised IHPT tasking function.

Implementation of these recommendations will require ongoing commitment and additional resources.

Recommendation 13

Establish an implementation team, led by an independent chairperson, to oversee the implementation of all recommendations and report to the Minister for Health in 6 and 12 months.

THE INQUIRY PROCESS

Background

In WA, SJA has long been associated with the State's road ambulance services, and has been the primary provider of ambulance services in both metropolitan and rural areas since 1922.¹ SJA is a not-for-profit organisation, and is part of the worldwide SJA association.

On 6 July 2009, the ABC Four Corners television program revealed four patients had died after inadequate responses by ambulance services. The program centred on the adequacy of the methods used for management and prioritisation of calls in the SJA communication centre. Paramedics who were interviewed for the program spoke of deficiencies in managing the reporting of adverse patient outcomes and lack of support from management in general. The Chief Executive Officer and Medical Director at SJA spoke of evidenced-based decision making and described the system for reviewing adverse patient outcomes. The Four Corners program and its accompanying website highlighted polarised views of internal systems, possibly reflecting a system under pressure.

The Minister for Health announced that the State Government would conduct an independent inquiry into the safety and quality of clinical practices at SJA. The terms of reference were developed following a meeting between the Minister for Health, the Liquor, Hospitality and Miscellaneous Union (LHMU) and paramedic representatives.

Terms of Reference

The Inquiry will prepare a report for consideration by the Minister for Health that includes recommendations to enhance and improve emergency ambulance services in WA.

The Inquiry will:

- Investigate all reported critical incidents and the four patient deaths specifically referred to in the ABC Four Corners television program of Monday 6 July 2009. The incidents will be separately evaluated with regard to metropolitan and rural services. Provide a mechanism for the workforce to report other critical incidents which have not yet been reported or sufficiently investigated, and review them.
- Investigate the performance and management of the SJA communication centre.
- Consider staffing, training, staff performance, prioritisation of calls and the use of procedures, clinical protocols, guidelines and decision support tools.
- Determine the adequacy and effectiveness of current clinical governance programs, including their timeliness and whether appropriate recommendations have been developed and acted upon. Compare the service's current clinical governance systems with the clinical review systems utilised in ambulance services in other jurisdictions within Australia.
- Assess the consumer complaint management system and its ability to develop and act upon outcomes.
- Advise the Minister of any matters revealed during the investigation which warrant further assessment.

The Inquiry will, wherever possible, benchmark the SJA to similar services in other jurisdictions within Australia.

Given the unique nature of the SJA emergency ambulance services, independent experts may be engaged to assist with the Inquiry.

¹ St John Ambulance (2000). *A brief history of St John Ambulance*. Accessed from <http://www.ambulance.net.au/content.asp?id=111> on 30 September 2008.

Independent Reviewer

The Inquiry was undertaken by Mr Greg Joyce, former Director General of the Department of Housing and Works, and overseen by Dr Simon Towler, DoH's Chief Medical Officer.

Both Mr Joyce and Dr Towler accessed a wide range of expertise to assist in undertaking the Inquiry. Individuals and organisations were consulted on an 'as needs' basis to provide expert opinion, analysis and information for the Inquiry and to ensure representation from relevant areas, especially expert pre-hospital care and medical advice.

Information relevant to the Inquiry was also obtained from SJA including patient information, ambulance activity, communication centre data and details of the complaint management system, as well as interstate comparative information.

Patient Death Investigations

Due to the time limitations of the Inquiry and the work involved in undertaking an investigation, the four patient deaths specifically referred to on Four Corners were prioritised for investigation. DoH determined that the process of investigation would use Root Cause Analysis (RCA) methodology. The Inquiry is appreciative of the cooperation of the four families in the investigations and of the investigative work undertaken by officers from the Safety, Quality and Performance Unit at Sir Charles Gairdner Hospital.

Consultation with the Public and Key Stakeholders

Public submissions were requested by newspaper advertising, which appeared in The West Australian on 18 July 2009. Additional information about the Inquiry was made available on DoH's website. The closing date for public submissions was 3 August 2009. Key stakeholders were invited to contribute written submissions based on the Terms of Reference. Letters inviting submissions were sent to key stakeholders (for the full list, refer to Appendix 1).

The Inquiry received 82 formal submissions from individuals and key stakeholders. One of these submissions had a further 49 submissions attached. A wide range of issues were covered in the submissions and most submissions addressed the Terms of Reference.

The Inquiry was also informed by many individuals who corresponded with the Minister for Health about issues relevant to the Terms of Reference for the Inquiry. Several of these letters focused on ambulance services that were outside the scope of the Inquiry. Other letters focused on the major themes from the Terms of Reference listed on the following page.

A public comments section on the Four Corners website relating to the ambulance services documentary was also reviewed to capture issues relevant to the Terms of Reference as part of the consultative process.

In addition, the Inquiry team met with numerous individuals and organisations who wished to provide information, or were requested to do so, relevant to the Terms of Reference. The contribution and participation of those involved is greatly appreciated, as is the full cooperation of SJA during the course of this Inquiry.

MAJOR THEMES FROM SUBMISSIONS AND CONSULTATION

Many submissions praised the good work of SJA, while others were critical of various aspects of practice at SJA. The issues raised in the submissions reflected the Terms of Reference and fell into six major groupings or themes, detailed below.

1. The communication centre

- Staffing levels, particularly at times of peak demand;
- Provision of staff performance management and development;
- Standards and guidelines for questioning callers, prioritisation, pre-arrival advice and documentation on call cards;
- Training and continuing education;
- 'Structured' call taking system;
- Feedback to callers where there are identifiable delays in response times;
- Quality control systems to monitor call centre procedures, responses and response times including regional areas;
- Coordination of dispatch in regional areas;
- Geographical knowledge and general understanding of country/regional areas; and
- Technical limitations (e.g., with dispatch system; communication 'black spots' in regional areas; inaccessibility of caller's geographical location information from mobile telephone data, similar to that used by the WA Police).

2. Paramedics

- Staffing levels, particularly at times of peak demand;
- Provision of staff performance management and development;
- Career pathways such as tiered skill levels;
- Consistency of emergency response procedures between training and practice;
- Registration of paramedics;
- Consistency of emergency response procedures among paramedics; and
- Continuing education, outcomes and orientation to new procedures and equipment.

3. Volunteers

- Reliance on volunteer services in regional areas, with implications for training, safety and quality;
- Volunteer staffing levels, particularly at times of peak demand;
- Provision of performance management and development;
- Gaps in skills and training between paramedics and volunteer ambulance officers, even though they may encounter the same degree of patient injury in an emergency; and
- Numbers of volunteer clinical service personnel and separate volunteer administrative and support staff.

4. Clinical governance

- A more rigorous clinical governance system and better consistency with DoH's system;
- No mechanism for sentinel events reporting to DoH;
- Discrepancies in clinical practice guidelines (CPGs) in comparison to other jurisdictions;
- Adequacy of responses for paediatric emergencies;
- Adequacy of pain management techniques;
- Adequacy of data management and veracity of data; and
- Equipment shortages compared with other jurisdictions.

5. Consumer complaints

- SJA is not viewed by many consumers as a 'health service' for the purposes of complaints to the Health Consumers' Council or Office of Health Review;
- Limited procedures in place to investigate complaints and minimal follow-up of complaints; and
- No independent complaints process.

6. Other issues

- Organisational culture and a 'rift' between management and clinical staff;
- 'Strained' relationship between the union and management, with the potential for major disruption to the ambulance service;
- Corporate governance matters, such as appointments to the Board of SJA and management positions;
- Perceived lack of accountability and transparency in procedural and clinical processes;
- Ambulance wait times at public hospitals;
- Patient transfers between secondary and tertiary hospitals impacting on demand for emergency ambulances;
- Secondary triage of non-urgent calls by *healthdirect*;
- Increased strategic level dialogue between DoH and SJA; and
- Tasking of the emergency rescue helicopter.

OVERVIEW OF EMERGENCY AMBULANCE SERVICES IN WA

Most people requiring emergency medical attention telephone '000' (Triple Zero) and, in metropolitan and country areas of WA, are transferred to SJA. Western Australians depend on SJA to provide emergency medical assistance, and many rely on an ambulance for transport to hospital.

Ambulance services have been partly funded by the public sector since 1933, initially through the Lotteries Commission, and have received partial funding from State Government annual grants since 1949.²

SJA is well established in its WA role, having provided the service for almost 90 years. SJA charges a service fee to all patients who use the service, except senior citizens. Many patients are covered for this cost by health insurance.

WA and the Northern Territory are the only states/territories in which SJA is the main provider of road ambulance services. Other Australian state/territorial governments hold primary operational responsibility for the provision of road ambulance services in their jurisdictions. In South Australia (SA), an incorporated organisation provides ambulance services, but that body is effectively part of the SA state government.

Figure 1 below shows that WA has the lowest ambulance activity per 100 population in Australia.



Note: Each response effectively means one ambulance dispatched. Some incidents required more than one response, hence the number of responses may be greater than the number of incidents.

Source: SJA submission, 2009.

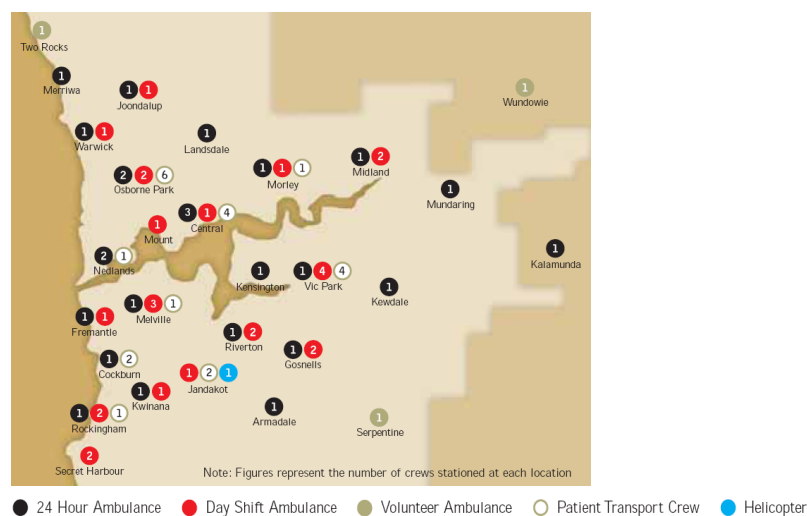
Figure 1: Australian ambulance activity per 100 population in 2007/08

In rural areas, SJA is either responsible for direct provision of all road ambulance services or else coordinates these services with significant work done by volunteers.

SJA employs approximately 1,000 people and manages another 3,500 volunteers. SJA received more than 400,000 calls last year, including 145,000 Triple Zero calls, and provided emergency ambulance services to 180,000 patients.

² St John Ambulance (2000). *A brief history of St John Ambulance*. Accessed from <http://www.ambulance.net.au/content.asp?id=111> on 30 September 2008.

Figure 2 shows the locations and type of resources in the Perth metropolitan area. A list of SJA metropolitan ambulance depots is provided in Appendix 2.



Source: SJA Annual Report 2007/08, p. 8.

Figure 2: Emergency response capacity in the Perth metropolitan area

A further 111 country sub-centres are spread across rural and remote WA.

The SJA fleet includes 104 ambulances in the metropolitan area and another 314 ambulances in the country. In the Perth metropolitan area, during the day, there are 64 vehicles available on weekdays and 42 on weekends. At night, this complement drops to 31 for both weekdays and weekends.

Resourcing

In WA, DoH contracts SJA to provide the State's emergency ambulance services. Historically, contracts between DoH and SJA have been for five-year terms. The arrangements in the contract have developed over a period of time as a result of previous reviews of road ambulance services in WA and evolving policies over successive terms of government.

In 1999/00, SJA reported a total income of \$56 million, of which DoH provided \$12 million (22%), and a total expenditure of \$52 million.³ In 2007/08, SJA reported a total income of \$119 million, of which DoH provided \$21 million (18%), and a total expenditure of \$112 million.⁴ In 2006/07, the State Government provided \$31 million (36%) of SJA's metropolitan operations income and \$4 million (19%) of its rural operations income.⁵ The current contract between DoH and SJA for provision of ambulance services was signed in 2004 and was due to end in June 2009.⁶

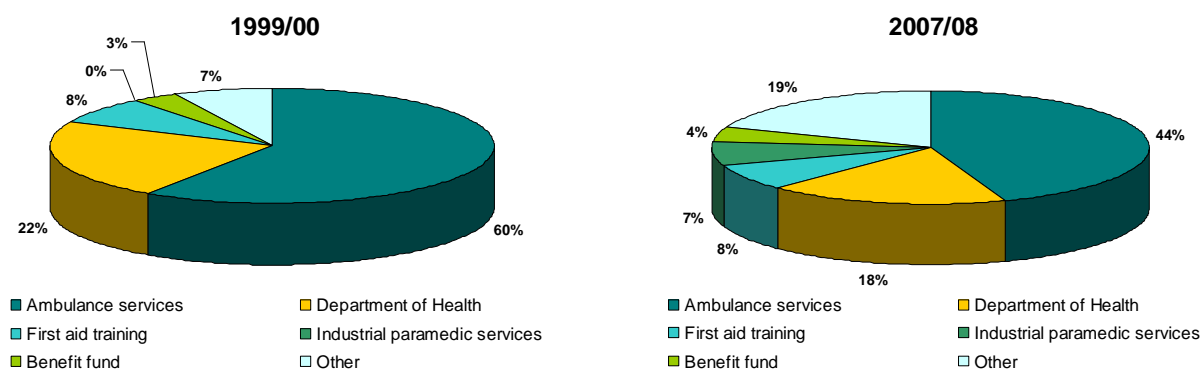
In those nine years, SJA's income increased by 113% and expenditure increased by 116%, while DoH's funding increased by 70%, which represents an average increase of 7.8% per annum. DoH's level of funding has thus decreased in proportion to other components of SJA's income, as shown in Figure 3.

³ SJA Annual Report 1999/00, p. 16.

⁴ SJA Annual Report 2007/08, p. 7.

⁵ SJA Annual Report 2006/07, p. 8.

⁶ State of Western Australia and St John Ambulance (2004). *Contract for the provision of health services 2004/2009*, p. 2.



Note: The 'Other' component of the 2007/08 income includes \$14.7 million from the State Government to subsidise ambulance transport for pensioners and seniors; this subsidy was introduced in 2005/06.

Sources: SJA Annual Report 1999/00 and SJA Annual Report 2007/08.

Figure 3: Components of SJA's income in 1999/00 and 2007/08

From 2004/05 to 2008/09, DoH's funding to SJA increased from \$19.3 million to \$24.3 million,⁷ which represents an average increase of 5.2% per annum over the past five years.

SJA provides a detailed performance report to DoH on a monthly basis as part of the contractual requirements. Currently, DoH's contract with SJA is in an extension period while the present review is being conducted. The new contract scheduled for 2009–2014 has not yet been finalised. The Minister for Health has said that the contract will not be finalised until after the Inquiry is complete.

In 1999/00, SJA's largest source of income was ambulance service fees, totalling \$33 million (59%), and its biggest expenditure was personnel costs, totalling \$28 million (55%). In 2007/08, these items were still the most significant sources of income and expenditure, with ambulance service fees amounting to \$53 million (44%) and personnel costs totalling \$69 million (61%).

SJA charges patients an ambulance service fee, and those patients with private health insurance are typically covered for ambulance transport that has been deemed an emergency. Aged pensioners are entitled to free ambulance services and senior citizens aged 65 years and over receive a 50% subsidy. Eligible veteran beneficiaries have their ambulance transport costs met by the Department of Veterans' Affairs, and other service pension recipients are entitled to free ambulance services.

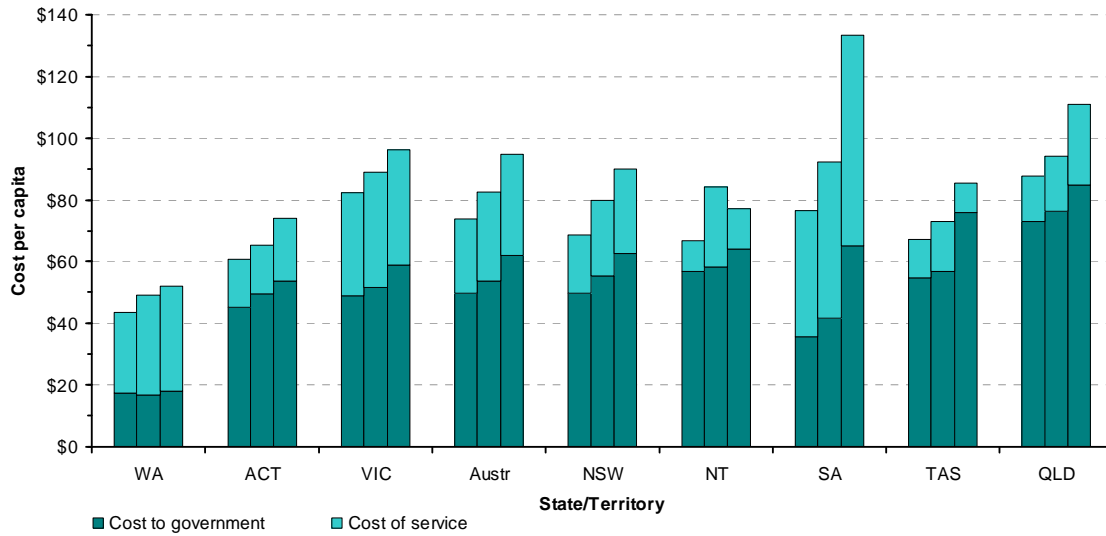
There appears to be widespread belief in the community that ambulance services are (or should be) free, and this may have contributed to the bad debt in emergency ambulance services. SJA's 2007/08 annual report noted bad debts of \$9.6 million (11%) for the metropolitan area and \$4.0 million (18%) for country areas, but did not specify any further details.⁸

Each state/territory's ambulance service has different ways of collecting service revenues. Some states have a compulsory levy that helps fund the ambulance service. Most health insurers offer ambulance cover as part of a package or as 'ambulance only' cover, except in Queensland and Tasmania. In general, the establishment of an ambulance levy is associated with an increase in demand for ambulance services. Queensland, in particular, saw a significant increase in ambulance usage with the introduction of a levy. (See Appendix 3 for a comparison of user costs across Australia.)

⁷ This figure does not include the State Government subsidy for ambulance transport for pensioners and seniors introduced in 2005/06.

⁸ SJA Annual Report 2007/08, p. 7.

Data indicate that the State Government pays less per capita for ambulance services than any other state/territory, as shown in Figure 4. In other words, SJA has, to date, provided the least costly ambulance service in Australia.



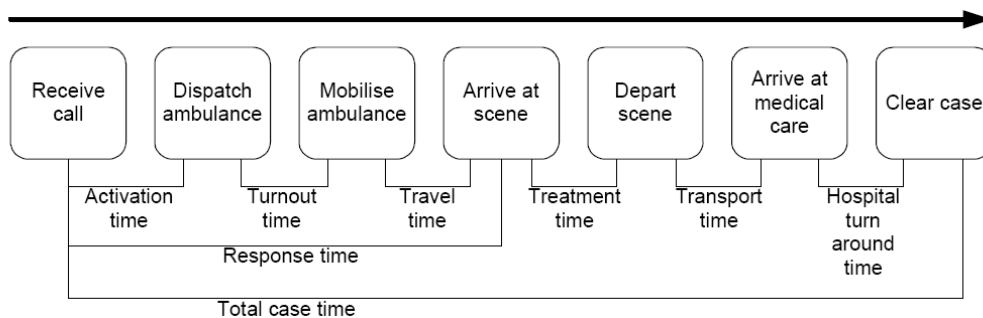
Note: Columns represent costs for 2006/07, 2007/08, and 2008/09, from left to right within each state/territory cluster. Data for the ACT and Tasmania include costs for inter-hospital transport; all other state/territory data do not. Source: SJA, 1 October 2009.

Figure 4: Cost of ambulance services per capita from 2006/07–2008/09

The average cost across Australia in 2008/09 was \$95 per capita (with state/territory governments paying \$62 of this figure), well above WA’s cost of \$52 per capita (with the State Government paying \$18 of this figure). If WA were to increase funding the government component to \$62 per capita, in line with the national average, this would cost \$96.8 million in a single year. While financial efficiency is desirable, it must be balanced against quality of service. A low-cost ambulance service is not necessarily the best ambulance service, although it is also not necessarily the case that a high-cost service is the best service.

Maintaining Response Capacity

Response time is a key indicator for any ambulance service, since this has a direct impact on the speed with which a patient receives appropriate medical care. In WA, response time is measured from the time the patient information is captured by the call taker at the communication centre to the arrival of the ambulance at the scene of the emergency, as outlined in Figure 5.



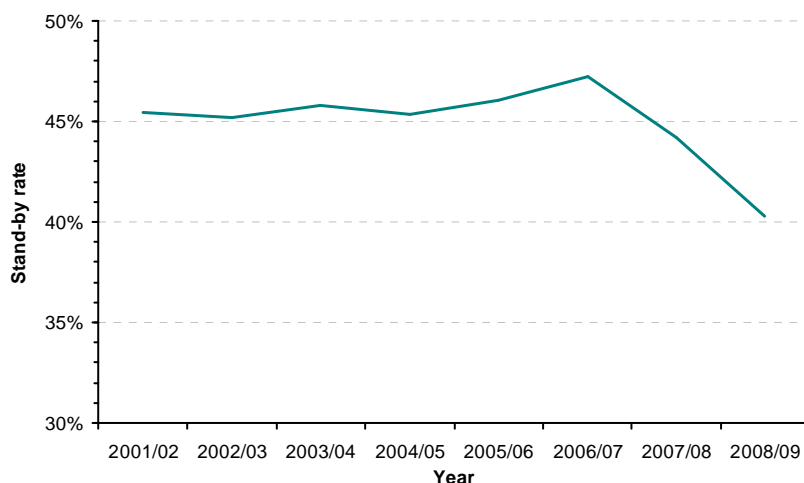
Source: SJA, 2009.

Figure 5: Ambulance call-taking process

The nature of providing emergency services requires a 'state of readiness' on the part of the ambulance service, and this means that an adequate stand-by rate must be maintained. Every ambulance on stand-by is an ambulance that is ready to respond to an emergency, while each ambulance currently in use is an ambulance not available to respond.

There is a direct relationship between response times and stand-by rates and both are highly resource sensitive.

Figure 6 shows that the stand-by rate has decreased significantly since 2006/07. Also of note is that, over the past eight years, the stand-by rate has remained well below 50%.



Source: SJA submission, 2009.

Figure 6: Ambulance stand-by rates from 2003/04–2008/09

A lower stand-by rate means that fewer ambulances are on stand-by, ready to respond to emergencies.

Call takers prioritise calls according to the patient's needs, from Priority 1 (P1, most urgent) to Priority 3 (P3, non-urgent) to Priority 5 (P5, booked call), with each call category having a different response time target. This means that, should a new P1 call arise, either an ambulance currently on a lower-priority task must be diverted to attend to the new call, or the caller must wait until an ambulance has completed its current task.

The current contract between DoH and SJA requires SJA to respond to at least 90% of P1 calls within 15 minutes. From 2004/05 to 2007/08, SJA responded to 88.9%, 89.0%, 90.2%, and 88.4% of P1 calls within 15 minutes, consistently missing the target except in 2006/07.⁹ The number of P1 calls falling outside the 15 minute target was over 3,700 in 2006/07 and over 5,000 calls in 2007/08, or put another way, 10 calls per day in 2006/07 and 14 calls per day in 2007/08. Given that many of these calls may be potentially life-threatening cases, the Inquiry was of the view that this level of risk was unacceptable.

For an adequately resourced ambulance service, 90% in 15 minutes is a fairly easy target to achieve. Other ambulance services work with more stringent requirements, such as Queensland, which has two percentile response time measures (50% and 90%)¹⁰ and thus has more tightly-specified performance targets. The fact that SJA has consistently been unable to meet the contracted target would suggest a service under pressure.

⁹ SJA Annual Report 2007/08, p. 9.

¹⁰ Department of Emergency Services (2008). *Queensland Ambulance Service Divisional Plan 2008–2012*.

While not a contracted output, average response times also represent a useful indicator of performance. Table 1 shows the average response times for P1, P2 and P3 calls over the past five years.

Table 1: Metropolitan ambulance average response times (minutes)

Priority	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
P1	9.77	9.92	9.85	9.63	9.97	9.96
P2	16.06	16.27	16.44	15.55	16.40	16.60
P3	32.61	35.47	33.81	30.72	37.44	42.07

Source: SJA, 2009.

The data show that the average P1 response time has generally been increasing, which suggests that if the bulk of P1 response times are under 10 minutes, there is a small but significant proportion of P1 calls taking much longer than 10 minutes.

P3 response times have increased at a much greater rate than P1 response times, which is further evidence of pressure on response capacity, since P1 calls will always take precedence over P3 calls. The effort to maintain timely responses to the most urgent situations (i.e., P1 calls) may require ambulances previously dispatched in response to a P3 call being diverted to respond to a P1 call instead. Thus, a significant increase in average P3 response time, as shown in Table 1, indicates an ambulance service with no remaining resources on stand-by.

These three measures of performance (decreasing stand-by rates, increasing P1 response times, and significantly increasing P3 response times) clearly indicate a system-wide pattern of decreasing response capacity.

Given the unpredictable nature of emergency services, minor and occasional variations in performance are part and parcel of this type of service activity. What is not acceptable, and more importantly, represents a significant risk to patients' survival, is a pattern of consistent and continuing decline in performance. Unfortunately, this would appear to be the case with SJA over the past few years.

Insufficient resourcing of ambulance services will increase the risk of response capacity remaining inadequate. This could mean that Western Australians call for an ambulance only to be told that no ambulance is currently available, or that it will take some time for an ambulance to reach them. It is these situations that lead to poor patient outcomes, or in a worst case scenario, patient deaths, such as those that sparked this Inquiry.

Overall, the Inquiry found that the model of an external service provider rather than a state run system was considered the most cost effective for WA. While Western Australians can be assured the current system is effective, the Inquiry noted several areas requiring urgent attention.

Recommendation 1

Endorse the continuation of the existing service model, namely the provision of emergency ambulance services by an external provider.

INVESTIGATION OF CRITICAL INCIDENTS

Investigate all reported critical incidents and the four patient deaths specifically referred to in the ABC Four Corners television program of Monday 6 July 2009. The incidents will be separately evaluated with regard to metropolitan and rural services. Provide a mechanism for the workforce to report other critical incidents which have not yet been reported or sufficiently investigated, and review them.

Root Cause Analysis (RCA) – Investigation Methodology

Serious clinical incidents may signal a breakdown in healthcare systems.

The goal of any investigation is to improve healthcare by reducing the likelihood that events will recur or reduce the consequences where a risk cannot be eliminated.

As the four patients at the centre of the incidents all died, the Inquiry adopted the routine approach used by DoH for the investigation of sentinel events. This approach involved a comprehensive and methodical analysis of facts to identify root causes and other contributing factors. The investigations focus on system issues, and if individual staff factors are implicated in an incident, further investigation addresses how the current system supports the individual and their performance in the relevant aspects of the job.

The areas of focus for the investigations included:

- Communication;
- Knowledge/skills/competence;
- Work environment/scheduling;
- Patient factors;
- Equipment;
- Policies procedures and guidelines; and
- Safety mechanisms.

The recommendations arising from the investigations are designed to contain strategies that can be implemented to minimise or eliminate the occurrence of similar events in the future.

Consent for investigation was obtained from the families involved with the four cases. The outcomes of three investigations are described in this report (see Appendix 4 for the individual RCA reports). The fourth investigation involved more complex issues and was not completed in the timeframe of the Inquiry. That investigation will be the subject of an additional report to the Minister for Health by the end of November 2009.

As the three RCAs had a number of similar themes, as did staff interviewed, the RCA review panel considered common issues and drew the following general conclusions and recommendations beyond the specific causative statements and recommendations for each of the three RCAs.

General Conclusions

The panel agreed that there was evidence of poor compliance to the following SJA policies and guidelines:

- Policy 12 – Dispatch procedures
- Policy 14 – 000 Emergency Telephone Service
- Policy 15 – Emergency call taking
- Policy 33 – Priority Allocation

- Policy 40 – Upgrading of Calls
- Policy 47 – Third or fourth party callers
- Policy 52 – Patient Transport Vehicle (PTV) Coordinator
- Guideline – Patient Transport Service (PTS) – Guidelines for Use¹¹

The RCA panel were not in a position to consider whether or not the failure to follow policy identified in the three cases reviewed may be occurring more broadly within the call centre. However, with regard to the cases investigated, the panel formed the view that the failure to follow protocols was primarily a cultural issue caused by a tendency to focus on operational rather than clinical matters, and that this culture had a number of contributing factors.

It appeared to be a feature in the calls reviewed that the call taker had an operational mentality, that is, he/she knows that ambulance resources can be stretched or limited due to operational constraints, and priority allocation would appear to be based on this rather than the patient's clinical condition. In calls where the patient's clinical condition is ambiguous or unable to be determined, the call taker is seen to opt for the low priority.

With regard to current decision support software, it was noted that the current Adobe based decision support tool was not used by call centre staff as it is based on diagnosis, not symptoms, and when activated occupies the entire computer screen, preventing dual/immediate access to the job card.

It was clear to the Inquiry, based on many of the submissions received, that the development of the clinical governance program is a priority to ensure that all significant adverse incidents occurring within the SJA service are identified and reviewed in a timely manner.

It will be a focus of the implementation of a clinical governance framework within SJA to develop and establish a reliable and transparent mechanism for the reporting and review of incidents. It is recommended that this should also include a matching program to evaluate the implementation of recommendations arising from incident reviews.

General Recommendations

- Review and align the call taking process to current best practice in the ambulance industry, taking into account clinical skills of call takers and structured call taking systems;
- Strengthen the role of the team within the communication centre, building on the role of the Clinical Team Leader and the Manager State Ambulance Operations, thus ensuring these positions are used as a first point of reference for any clinical issues which are unclear or ambiguous;
- Develop and implement a focus on clinical decision-making in the call-taking phase;
- Develop and implement a focus on clinical follow up and provision of clinical advice at all times for all calls, as a matter of priority; and
- Introduce an audit process for the delineation of call prioritisation as part of a continuous improvement culture.

Recommendation 2

Implement, as a matter of urgency, all recommendations (both general and specific) emanating from the Root Cause Analysis process.

¹¹ This guideline articulates the types of cases the PTS can transport and provides direction to Call Takers and PTS operators on who to escalate the decision to if they are not sure whether a PTS crew should be allocated the call or be asked to stand by.

INVESTIGATION OF THE COMMUNICATION CENTRE

Investigate the performance and management of the St John Ambulance – WA Ambulance Service Inc. communication centre.

Optimal emergency ambulance responses are essential in providing life saving clinical treatment. The ability of an ambulance to respond as quickly as possible to an emergency relies not only on ambulance availability but also on the management of emergency calls and how the ambulance is dispatched. The role played by staff at the SJA communication centre involved in call taking and ambulance dispatch is critical to the effectiveness of the emergency response and a patient's survival and care.

Current Provision

Heading the communication centre, which is located at Belmont, on every shift is a full-time State Operations Manager. Reporting to this position on every shift is a Manager State Ambulance Operations. Essentially, this position is responsible for the movement of the ambulance fleet across the entire State.

These managers are supported by:

- An Ambulance Network Coordinator (24/7), responsible for the distribution of ambulance calls to hospitals;
- An Emergency Dispatcher (24/7), responsible for the allocation of calls to ambulance crews;
- A Transport Dispatcher (day shift/7 days), responsible for the allocation of calls to PTVs;
- Three to four call takers on each shift; and
- Since July 2009, a Clinical Team Leader (day shift/7 days) responsible for providing clinical advice and assessment.

Communication centre call takers undergo Tertiary and Further Education (TAFE) level training provided by SJA. Three courses are available:

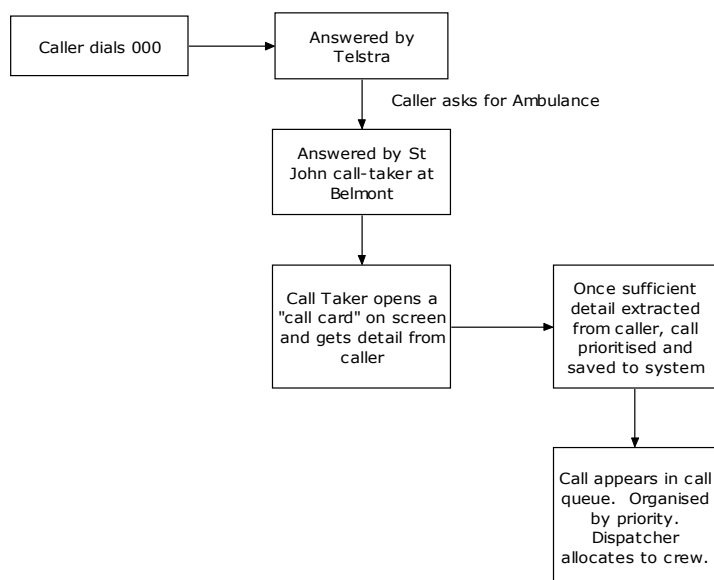
1. Certificate III in Ambulance Communications (Call Taking);
2. Certificate IV in Ambulance Communications; and
3. Annual refresher training.

The Certificate IV course is of 18 months' duration and the course curriculum covers the use of the Computer Aided Dispatch (CAD) system, guidance on the key questions to be asked of callers for specific symptoms or indications, and specifies key triggers for prioritisation of calls and guidelines for patient transfers. Trainees are afforded hands-on exposure to call taking by working within the communication centre. After 12 months, trainees are provided with training in radio dispatch. Assessments include theoretical and practical tests of a trainee's competence with the purpose-built CAD system, call taking, radio dispatch and a behavioural assessment.

Calls handled in the communication centre include Triple Zero calls, non-urgent calls, administrative calls and outbound calls, such as those to country sub-centres to provide services. Triple Zero calls for emergency ambulance service are directed from Telstra to the SJA communication centre.

Since 2006, due to direction from Telstra, the communication centre has handled all calls for the entire State after the winding up of a variety of call taking and dispatch practices used throughout the country sub-centres.

All calls received in the communication centre are recorded on audio tape. During a Triple Zero call, information from the caller is entered into the CAD system. This is used to identify incident locations and provide real-time tracking of vehicles. Figure 7 shows the processes involved with an emergency call.



Source: SJA, 2009.

Figure 7: Diagrammatic representation of a Triple Zero call

The SJA call assessment process focuses on identifying time-critical problems and DRABC (i.e., danger, response, airway, breathing and circulation/cardio-pulmonary resuscitation [CPR]) principles. Information is obtained including location and call back number, number of patients, level of consciousness, presence of breathing and age of patient.

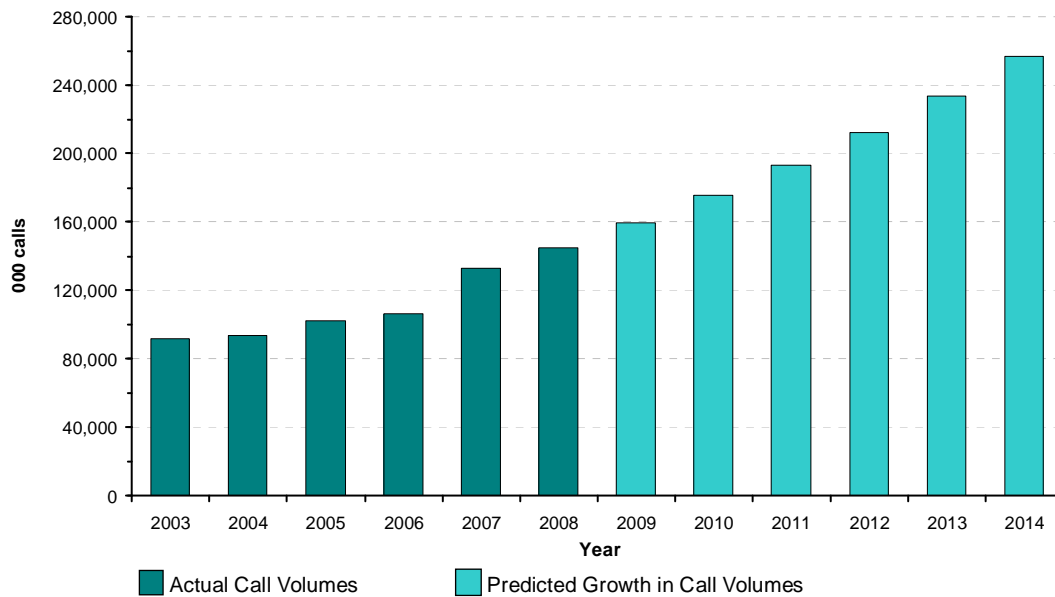
Problem codes are assigned based on the chief complaint, the mechanism of injury is taken into account, some symptoms require further questioning and CPGs and 'flip charts' provide guidance for call takers.

For country calls, the communication centre takes calls transferred from the Triple Zero service and then contacts the nearest local ambulance sub-centre to dispatch an ambulance.

Typically, the call will reach the local coordinator, who will then call other local volunteers as needed before being able to physically dispatch an ambulance. At this point, the communication centre no longer tracks the dispatch job unless a local volunteer calls back (e.g., if there has been a problem).

In 2008, the communication centre handled more than 400,000 inbound calls alone, including 145,000 Triple Zero calls. Triple Zero calls have increased on average by 10% per annum since 2001.

Figure 8 shows the current trend and expected growth in Triple Zero calls. Within five years, the communication centre is expected to handle more than 250,000 Triple Zero calls per annum. Only a very small number of Triple Zero calls are from people not in genuine need of assistance.



Source: SJA, 2009.

Figure 8: Current and predicted Triple Zero call growth (2003–2014)

SJA's current service average for answering Triple Zero calls is 19 seconds. Since January 2008, the percentage of calls with an answer time of greater than 60 seconds has ranged from 0.1–0.6%. This represents up to 870 calls, or put another way, almost three Triple Zero calls per day take over a minute to be answered. Despite a significant improvement in Triple Zero call answering times and a decrease in the number of calls waiting longer than 60 seconds to be answered, WA (with only 62.7%)¹² remains well outside the agreed national guideline of 90% of Triple Zero calls answered within 10 seconds. This 'below par' performance is in no small part due to insufficient staff available to handle the volume of calls.

At SJA, calls are allocated on a priority basis to ensure workload is actioned according to the patient's needs, with each call category having a different response time target, as outlined below:

Priority 1 (P1) – potential for life to be at risk.

SJA response time target is to attend to 90% of emergency calls within 15 minutes after having collected patient information.

Priority 2 (P2) – no immediate threat to life.

The SJA response time target is to attend to 90% of urgent calls within 25 minutes of having collected patient information.

Priority 3 (P3) – non-emergency such as neonatal retrieval and Royal Flying Doctor Service (RFDS) transfers.

The SJA response time target is to attend to 90% of non-urgent calls within 60 minutes of collecting patient information.

Priority 4 (P4) – non-emergency calls.

Priority 5 (P5) – booked calls for major events (e.g., sporting events).

¹² Data for 2008/09 from Telstra provided by SJA, 8 October 2009. Note that Telstra have not provided SJA with any assurance of the quality of the data.

The numbers of calls in the metropolitan area for each of these priority levels are listed at Table 2 below.

Table 2: Metropolitan ambulance activity from 2003/04–2008/09

Priority	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
P1	33,595	35,290	36,021	37,976	42,612	43,760
P2	32,323	34,044	34,544	34,590	35,137	39,289
P3	35,332	35,837	38,104	43,904	45,194	45,074
P4	15,952	18,045	19,708	22,089	24,759	25,462
P5	421	393	461	437	483	481
Total	117,623	123,609	128,838	138,996	148,185	154,066

Source: SJA, 2009.

Approximately 28% calls are P1 cases, 26% calls are P2 cases, 17% calls are P3 cases, 29% calls are P4 cases and less than 1% are P5 cases.

These figures show an average increase of 5.6% per annum in P1 and P2 cases over the past five years. This is more than double the rate of population growth of 2.3% over the same period.

Inquiry Findings

The Inquiry acknowledges the complex and high pressure working environment of the communication centre staff. The Inquiry observed these same staff conducting themselves in a professional and dedicated manner and appreciated their cooperation and assistance during the review.

The Inquiry noted that communication centre staff are expected to attend to highly vulnerable people under significant duress. Unlike most health professionals, communication centre officers provide advice and make judgements without the benefit of seeing the patient. This strain is further amplified when responding to people across language barriers.

The Inquiry found that the communication centre has not been given the strategic focus necessary for such an essential part of the organisation, namely the public's first point of contact with SJA.

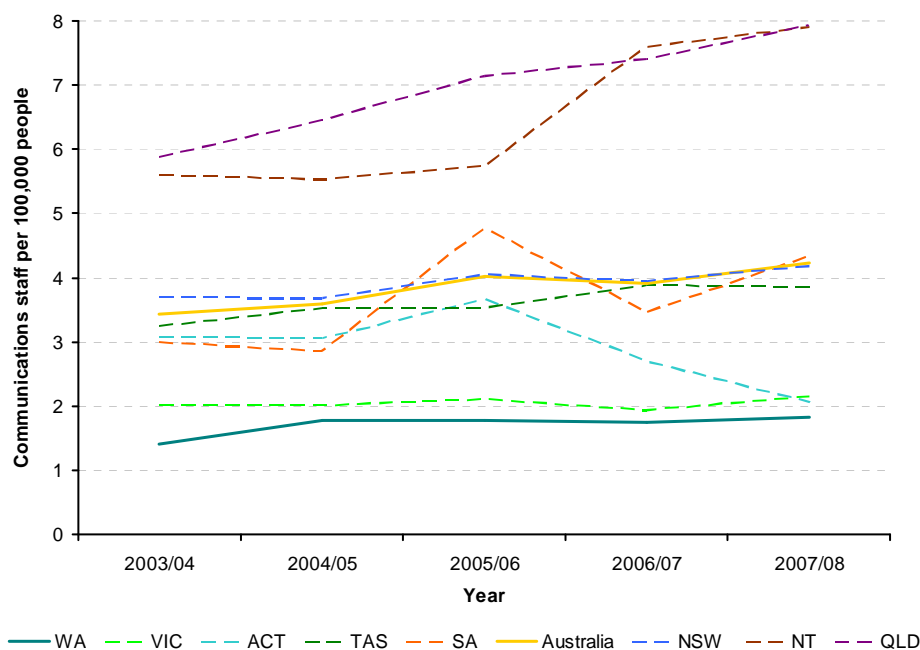
Several submissions and stakeholders indicated a pressing need for increased staffing levels in the communication centre due to workload pressures and the potential for mistakes. In recent times, staffing levels are reported to have been lower than the numbers specified previously (e.g., there may be only two call takers on duty during the busiest times on Friday and Saturday nights).

Turnover of staff is high, with more than one-third of staff leaving within six months and more than 60% of staff leaving within two years. A process of exit interviews has been introduced recently to identify ways to improve retention of staff. This high turnover rate may explain the use of less experienced trainees within the communication centre.

It has been reported that trainees undergoing placement are often counted as rostered-on staff. If this is correct, the arrangement is likely to place both trainees and regular staff under pressure. The paucity of staff in the communication centre has been linked to the cases described in the Four Corners report.

Adequate levels of staff in the communication centre are necessary to ensure the centre is able to handle the volume of calls received.

Figure 9 shows the number of communication centre operative staff, specifically call takers, dispatchers and supervisors per 100,000 people by states over the past five financial years. SJA, at below half the national average, is below *all* other jurisdictions in terms of the number of staff per capita. The number of calls received by the SJA communication centre would indicate that the service requires significantly more staff, which would then ensure SJA complies with the nationally agreed benchmark of 90% of Triple Zero calls answered within 10 seconds.



Source: Productivity Commission's Report on Government Services, 2007/08.

Figure 9: Number of communications staff per capita in Australia

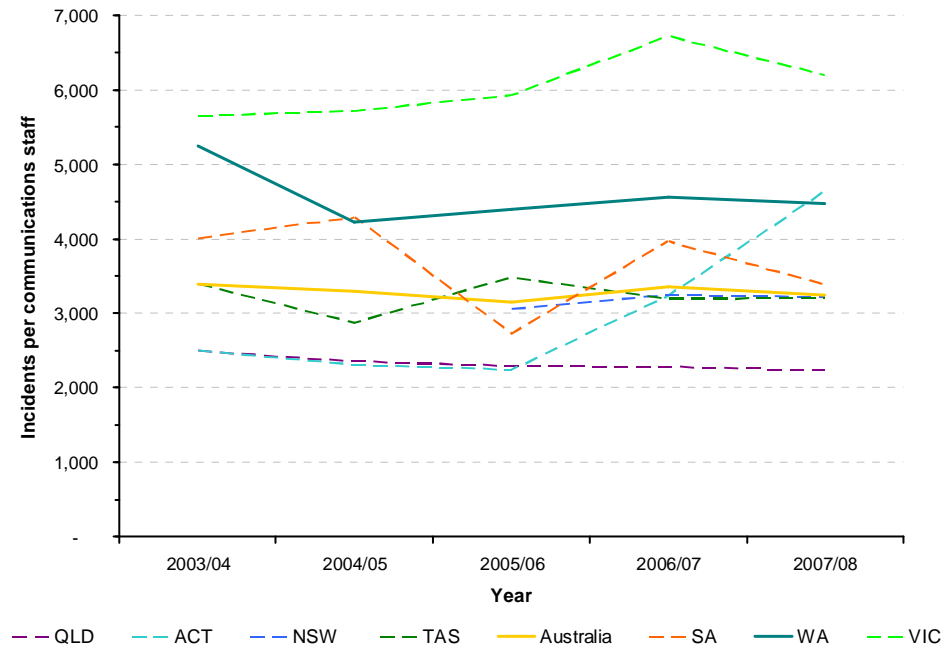
By way of comparison, in 2008, the WA Police received more than 260,000 Triple Zero calls using up to ten call takers per shift, depending on demand. This represents a staff to call ratio during peak periods of 1:26,000 Triple Zero calls compared with 1:36,250 Triple Zero calls for the SJA call takers. In addition, these same SJA call takers handle all non-Triple Zero calls, unlike their WA Police counterparts.

The Inquiry found the number of Triple Zero calls taking more than one minute to answer was excessive and advocates, as a goal, the answering of calls within one ring.

Another way to look at the SJA communication centre response capacity is to look at staff workload which can be analysed by the ratio of incidents per communication centre staff member or operative. An incident is an event that results in a demand for ambulance resources to respond.

Figure 10 shows that SJA communication centre operatives, on average, deal with more incidents than their counterparts from other states, with the exception of Victoria. Over the past few years SJA communication centre staff have dealt with 35% more incidents compared to the national average. Taking into account that call takers at SJA also deal with large volumes of calls for inter-hospital patient transport (IHPT) vehicles, administrative matters and outbound calls such as country dispatches, this amplifies the workload demands on the current operatives.

Furthermore, call takers at SJA also deal with resuscitations ‘over the phone’. There is approximately one case daily at the communication centre; these calls last approximately 20 minutes and are stressful, especially in cases where babies and children are involved. Resuscitations put additional pressure on the remaining call takers to manage inbound and outbound calls.



Note: No data for the NT were available.

Source: Productivity Commission’s Report on Government Services, 2007/08.

Figure 10: Incidents per communications staff in Australia

Staff in the communication centre operate on 10–12 hour shifts. Often, the last two hours of the shift are the busiest and hardest physically. As off-duty staff are regularly requested to work overtime and cover shifts, this raises concern of staff ‘burn-out’. While many staff perceive advantages to these arrangements, the impact of these hours upon patient care is unknown.

High-intensity work coupled with 12 hour shift rotations requires that staff within the communication centre are provided adequate breaks and rotate between functions, such as between call taking and coordination of ambulance and other transport vehicles. As trainees are unable to undertake the latter function, their inclusion in the rostered-on headcount places more senior staff at risk of working prolonged durations without breaks. This has the potential for inadvertent mistakes in prioritising and allocating calls to stations.

Due to the large volumes of calls being received each day, consideration could be given to separating Triple Zero calls from all other calls and having dedicated call takers for each service, although at present, it is acknowledged that there are simply not enough staff to allow for this.

A number of submissions raised the issue of inadequate performance management and development of staff. This is considered an important component of overall organisational management and normal human resource practice and can dramatically improve not only working relationships between staff and management, but also performance of the organisation overall. Some submissions indicated that morale was low and staff felt isolated. Call taking staff indicated they are not aware of their performance and how this is assessed or varies over time.

Performance management guidelines are available at SJA but do not specify an individual performance development plan for each staff member. It is strongly suggested that immediate focus be given to providing regular and ongoing feedback on performance as well as the introduction of individual performance development plans.

Numerous stakeholders raised concerns regarding the level of training provided to officers in the communication centre. The Inquiry noted that it was not uncommon for paramedics or ambulance transport officers to arrive at the scene only to find a patient in a condition significantly different to that indicated by the communication centre call taker.

While this may reflect the quality of the information provided to the call taker by the caller or a change in the condition of the patient, the Inquiry noted that call taker training notes do specify questions which should be posed and information which should be gathered when speaking to a caller. Whilst there is a training document to assist students in prioritising decisions and clinical flow charts ('flip charts') for first aid advice, compliance is not mandatory as these are not policy documents. Such information is crucial in determining prioritisation and the level of ancillary resources which may be required at the scene. Consideration should be given to installing the flip charts into the computer system.

Similarly, the communication centre recordings of the patient cases discussed in the Four Corners report revealed failure to follow the key questions and prioritisation triggers outlined in training.

This raises several issues. First, one must question why, in specific circumstances, training protocols were not followed. Second, it is important to establish the role and extent to which systematic factors contributed (e.g., if key questions were not ascertained due to time or staffing pressures and the need to attend to other incoming calls or tasks). Without a systematic audit, it is not possible to ascertain either the frequency of such events or their aetiology. This is significant as it impairs analysis of how these issues may be addressed (e.g., by re-training, altering roster patterns or by introducing a higher level of structured call taking).

Prior to the recent appointment of Clinical Team Leaders based within the communication centre, there was no mechanism for auditing or assessing the appropriateness of decisions made by any call taker. Currently, Clinical Team Leaders are able to undertake a review of calls made in the previous 24 hours. Additionally, cases where the priority assigned to the patient was upgraded by the paramedics are included in the review.

These data are collated into a monthly report and form the basis of the Clinical Information Systems (CIS) meetings. Although intended to be monthly, these meetings have tended to be intermittently spaced. Furthermore, the level of information requested does not meet that recommended by the Clinical Team Leaders themselves.

One submission noted that the CIS reports highlight approximately 50 life threatening cases each month which are dispatched inappropriately by the communication centre. This is consistent with data provided by SJA. Tellingly, the CIS data do not include cases where the patient is not transported to hospital, regional calls or calls which are assigned Priority 2 or 3. Thus, there is a risk that more important adverse event signals are missed. This is compounded by the absence of a systematic audit of calls attended by ambulance crews. Although the patient care records describing attendances in the metropolitan area are electronically filed, they are not routinely reviewed.

Patient care records from rural sub-centres are not centrally held and are never scrutinised by Clinical Team Leaders. This results in limited oversight of country practices and also represents a missed opportunity to increase support for rural paramedics and volunteers.

The Inquiry considered that while the prerequisites for training to be a call taker were adequate, the training and continuing education of staff had scope for improvement. Standards and guidelines for questioning callers, prioritisation, pre-arrival advice and call card documentation require urgent review and development.

The current full-time pay rates per annum for communication officers are:

- Communications Officers (call takers) – from \$47,000 to \$62,000;
- Communications Officer Trainers – from \$65,000 to \$69,000; and
- Ambulance Network Coordinators – from \$69,000 to \$72,000.

Remuneration levels for communications officers were not raised as a major concern, though the number of levels in the relevant award was identified as restrictive and provided minimal career progression. A variation to the award is an issue flagged for discussion with the LHMU and relevant parties during the implementation phase of the Inquiry.

While recent enhancements to the CAD system are noted, the capacity of the system to manage the large volume of calls and access by a number of staff was questioned during the Inquiry.

With SJA's cooperation, DoH examined the capacity of SJA's existing network infrastructure at Belmont. The Inquiry concluded that while the CAD network is adequate for current requirements, a number of vulnerabilities need to be addressed with minor technical changes and low-cost capital improvements.

The Inquiry was unable to conclude that reported 'freezing' of applications or devices connected to the CAD network was due to the network configuration. SJA stated that freezing was specific to one part of the application that has now been corrected. Although freezing could be due to software, the recommended network improvements would provide greater insight into the current state of the network and would bring the network in line with best practice.

Several submissions to the Inquiry noted an apparent lack of knowledge of country geography among communication centre staff overall, which has obvious ramifications for dispatching an ambulance as quickly and appropriately as possible. In addition, once an ambulance dispatch request has been issued from the communication centre to a local ambulance sub-centre, there is no follow up to ensure that an ambulance has actually been dispatched (e.g., due to employment commitments there might be no volunteers available to staff an ambulance which could mean that no ambulance is assigned promptly or there is confusion and more than one ambulance crew is assembled). One respondent identified a lack of availability of a volunteer crew rather than lack of country knowledge for the dispatch of a crew from further away than would normally be the case.

SJA has not yet established a dedicated country coordinator position. This role had been recommended as far back as 2005 when SJA was assigned to receive all calls from across the State. Even with good coordination at the communication centre, there could still be potential problems with assembling a crew and dispatching an ambulance in a country region, and a dedicated position would alleviate many of these problems.

A number of submissions, particularly from country volunteers and paramedics, noted technical communication limitations (e.g., 'black spots') in rural areas. In addition, the issue of information from Telstra on the exact geographic location of a caller from a mobile phone was queried. SJA are engaged in a national working party addressing options for accessing this information.

Recommendation 3

Improve the response capacity of the SJA communication centre through:

- Increased staffing levels of call takers and other key communication centre personnel;
- A staff performance management and development program with individual plans for all officers;
- A review of training and continuing education, specifically in relation to standards and guidelines for questioning callers, prioritisation, pre-arrival advice, and call card documentation;
- Examining the feasibility of splitting calls between '000' and other calls;
- Considering the geographical split between metropolitan and country regions;
- Requesting SJA to remedy the 'freezing' of the Computer Aided Dispatch network immediately; and
- A quality audit of calls against specific standards and guidelines.

Many submissions raised the issue of structured call taking, where staff are guided through a series of questions. The system of structured call taking used widely in Australia and overseas is MPDS (Medical Priority Dispatch System). The software that delivers MPDS is called ProQA.

MPDS includes chief complaint/incident type protocols that help ambulance communication officers obtain vital information about patient status and scene conditions. The operator then uses this information to send the appropriate response configuration.

MPDS also includes treatment sequence protocols covering cardiac arrest, choking and childbirth. These protocols enable the operator to assist the caller in helping the patient before an ambulance arrives.

Correct dispatch levels are usually determined in less than one minute. ProQA is built on a foundation of empirical literature and medical experience relevant to medical dispatching (data from thousands of ambulance cases have been utilised). It purposely takes into account the unique, non-visual nature of the medical dispatch environment, where patients must be assessed and treated remotely.

Figure 11 overleaf highlights some of the benefits and risks of using MPDS.

Some information may appear conflicting because several sources have noted different experiences with the tool. There were mixed views among stakeholders and those who responded to the Inquiry on whether SJA would benefit by having such a system.

While there was pressure from some quarters to move immediately to implement such a system, the Inquiry came to the view that, given the substantial investment required, particularly in terms of the training and up-skilling of staff, more work needed to be done to ensure a considered approach to this important issue.

Clinical Advantages

- Correct priority more likely to be assigned when compared to a less structured system. This enables a more appropriate response to cases and also leads to more effective use of resources.
- Prior to the arrival of the ambulance, correct protocols will be given to the caller so they adequately administer the patient. Sometimes these protocols can be missed in pressure situations.

Non Clinical Advantages

- Contains an automated auditing function that pinpoints specific training needs and liability risks, and helps document continuous improvement efforts.
- Risk Management – conforms to international standards of telephone advice, strengthening legal defensibility if guidelines are followed. This also impacts finances due to reduction in insurance premiums.
- Other non clinical advantages of MPDS:
 - Adaptable to individual ambulance service conditions;
 - Enables the establishment of benchmarks;
 - Lower staff turnover in the communication centre;
 - Increases satisfaction as well as safety for on road staff due to more correct information being provided.

Clinical Disadvantages

- Asking questions can lead the caller away from the real situation.
- Assigns too many emergency (P1) cases that should be lower priority therefore unnecessarily constraining resources. For example it was noted anyone with a breathing difficulty or gash on the head will receive a P1 ambulance regardless of severity, therefore overutilising resources and redirecting them from areas of greater need.
- Calls can take longer due to more questions being asked.
- Does not make use of call taker training or judgement.
- Typically, training is focused on the questions of the tool and does not cater for advice outside of this e.g. resuscitations

Non Clinical Disadvantages

- Rigid protocols allowing no flexibility for local conditions without extensive lengthy consultation. The US National Academy of Emergency Medical Dispatchers has to approve all changes to the call taking protocols.
- Initial setup cost of more than \$1.4m and \$800,000 ongoing annual costs.

Figure 11: Advantages and disadvantages of the structured call taking approach

The Ambulance Service of NSW has recently undertaken a review of MPDS, which is expected to be available later in the year. In an earlier report they acknowledged that MPDS allocates too many ambulance crews to patients whose clinical condition does not necessarily warrant an allocation.

Further information on Pathways, the system used in the United Kingdom (UK) as well as another less well known tool, Criteria Based Dispatch, should also be considered for further analysis during the implementation phase of this Inquiry.

Recommendation 4

Investigate further the feasibility of introducing structured call taking in the communication centre.

STAFFING, TRAINING, PRIORITISATION OF CALLS AND PROCEDURES

Consider staffing, training, staff performance, prioritisation of calls and the use of procedures, clinical protocols, guidelines and decision support tools.

Metropolitan Region – Current Provision

In 2007/08, SJA employed 689 ambulance personnel in the metropolitan area, assisted by 76 volunteers, in attending to 148,186 patients.¹³ Of these staff, 522 were frontline ambulance personnel, while in 1999/00, SJA employed 311 frontline ambulance personnel, representing an average annual increase of 7.5% over the past nine years.

In Perth, SJA has 28 ambulance stations. Career paramedics staff 27 stations and volunteers staff the remaining station. All staff stationed at these locations form part of an ambulance crew rostered to respond to emergency calls. Ambulance crews are normally two paramedics or a paramedic accompanied by a student ambulance officer. The level of staffing varies by time and day, based on the level of demand for ambulances. Table 3 below shows the duty roster, and as such represents the total response capacity.

Table 3: Metropolitan ambulance crew duty roster

Crew Type	Weekdays		Weekends	
	Day	Night	Day	Night
24-hour paramedic	27	27	27	27
Day shift paramedic	20	0	9	0
Patient transport	15	2	4	2
Volunteer	1	1	1	1
Helicopter	1	1	1	1
Total	64	31	42	31

Note: Patient transport crews do not handle emergency calls.

Source: SJA, September 2009.

While many crews will be attending to emergencies at any given time, some will be on stand-by, ready to respond to any new emergencies. The stand-by rate varies according to utilisation; thus, a stand-by rate of 50% means that for 50% of the time, an ambulance is available to respond to a new emergency. The nature of providing emergency services dictates that stand-by rates need to be maintained at a certain level, even if this means that some ambulances are not in use at a given time. The lower the stand-by rate, the higher the risk that an ambulance will not be available—or will have to travel from a more distant station—when a new emergency arises. The current SJA stand-by rate is 40%.

Paramedics currently work on one of three rosters:

1. 2, 2, 4 – Two consecutive day shifts (8:00 AM–6:00 PM; 10 hours per shift) and two consecutive night shifts (6:00 PM–8:00 AM; 14 hours per shift) followed by four days off.
2. 4 x 3 – Four day shifts (either early, 8:00 AM–7:00 PM, or late, 11:00 AM–10:00 PM; 11 hours per shift) followed by three days off.
3. 4 x 4 – Four shifts (two early shifts followed by two late shifts; 11 hours per shift) followed by four days off.

¹³ SJA Annual Report 2007/08, pp. 6 and 8.

Paramedics often work overtime (e.g., if dispatched to a call at close to the end of their shift that requires a longer than expected wait time at a hospital).

Paramedics are ambulance officers who hold either an Advanced Diploma or Bachelor's degree, while student ambulance officers are those working towards their paramedical qualification. Student officers are always partnered with a fully qualified paramedic.

Each station has a Station Manager, an ambulance officer who holds either an Advanced Diploma or a Bachelor's degree, whose primary role is as a paramedic forming one half of an ambulance crew. Whenever they are not responding to calls for an ambulance, they perform administrative and low-level management duties at the station.

At all times (i.e., 24 hours per day, 7 days per week), there are two Operational Team Leaders (one in the north metropolitan area and one in the south). Each leader drives a vehicle, maintains contact with the communication centre, and provides operational management of the frontline personnel in his/her area,¹⁴ including handling of delays, coordination of ambulances for major incidents, and dealing with complaints.

During day shifts, there are three Clinical Team Leaders (one in the north, one in the south, and one in the communications centre). The north and south leaders each drive a vehicle and provide clinical guidance and feedback to ambulance crews, including clinical reviews on staff performance. They can also provide paramedical assistance at a scene if needed, such as at a major incident.

Pay rates for paramedics were reviewed last year following successful negotiation by the LHMU and are highly competitive with their interstate counterparts. Current full-time pay rates per annum^{15, 16, 17} are:

- Student Officers – from \$40,000 to \$56,000;
- Ambulance Officers – from \$56,000 to \$62,000;
- Ambulance Paramedics – from \$73,000 to \$81,000;
- Station Managers – from \$83,000 to \$86,000; and
- Senior Paramedic and Team Leaders – from \$86,000 to \$94,000.

Metropolitan Region – Inquiry Findings

Several submissions and stakeholder presentations indicated a pressing need for more ambulance crews and suggested that more ambulances and crews would help meet demand. This is consistent with advice from SJA that their current stand-by rate is 40%, significantly below the generally accepted figure of 50–55%.

Ambulance crews from many areas said it was common to be assigned to calls a substantial distance away from their usual area because crews from closer bases were unavailable, resulting in increased response times.

It has been reported there is a tendency to allocate ambulance paramedics to P4 low priority booked patient transfers (which could be managed by transport officers). This may have an impact on the availability of ambulances for emergency transport situations.

¹⁴ During the day shift, this means 127 frontline staff across Perth (the helicopter crew, tasked by FESA, includes only one SJA officer). There are 61 frontline staff across Perth during the night shift. All of these figures include patient transport crews, who do not handle emergency calls.

¹⁵ *St John Ambulance Australia (Western Australia) Inc. Ambulance Officers'/Paramedics' Union Collective Agreement 2008–2011*, p. 58.

¹⁶ *St John Ambulance Australia (Western Australia) Inc. Communications Officers' Union Collective Agreement 2008–2011*, pp. 35–36.

¹⁷ Part-time arrangements, overtime allowances, and penalty rates would add variance to these figures.

Whilst ambulance crews operate on 10–12 hour shifts, shift extensions may result in staff working for 14 hours continuously. Many staff perceive advantages to these arrangements, but as mentioned previously, the impact of long hours on quality of patient care is unknown.

A further issue raised in both submissions and through the consultation process was the lack of career progression available to paramedic staff. Many felt that there were few or no opportunities for them to develop their skills and expertise and ‘move up the career ladder’.

SJA wish to have Clinical Team Leaders (one north, one south, and one in the communication centre) on duty at all times (i.e., 24 hours per day, 7 days per week), but staffing limitations prevent this. Currently, clinical guidance and feedback are only available to ambulance officers during day shifts.

SJA has sought to address its staffing needs by recruiting from a wide pool, including candidates from other countries and jurisdictions. The main approach, however, has been in promoting paramedical careers through collaboration with Edith Cowan University (ECU) whereby SJA supports trainees. SJA’s recruitment processes are beyond the scope of the Inquiry, so observations are limited to the need to ensure that paramedics from other countries and jurisdictions are aware of differences in clinical practice expectations within SJA.

Recommendation 5

Invest in ambulance service infrastructure—both staff and capital—to ensure an appropriately responsive and sustainable service.

Country Ambulance Services – Current Provision

In WA’s country regions, the ambulance service is localised to many country towns and primarily relies on volunteers. In 2007/08, SJA employed 142 ambulance personnel (career paramedics and other employees) in the country, assisted by 2,061 volunteers in attending to 37,637 patients.¹⁸

These volunteers made up 70% of the entire WA ambulance service’s workforce. They provided service to 15,352 patients (41% of country cases, or 8% of all cases in WA), and this involved travelling 1.2 million km (65% of the distance for country cases, or 20% for all cases in WA).¹⁹ Clearly, they play a pivotal role in provision of ambulance services in WA.

There are 111 country ambulance sub-centres. Career paramedics staff 10 of these centres, paramedics and volunteers in combination staff two centres and volunteers staff the remaining 99 sub-centres.²⁰ In Derby, Fitzroy Crossing, Halls Creek and Marble Bar, the WA Country Health Service (WACHS) provides ambulance services staffed by nurses, since SJA has no presence in these towns.

The volunteers receive training and some support from SJA; however, the local community is expected to provide the cost of the infrastructure and ensure there are sufficient volunteers available as required.

As regional centres develop with concomitant increases in population, there has been a process to introduce paramedics as needed, given the increase in demand linked to population growth.

¹⁸ SJA Annual Report 2007/08, pp. 6 and 12.

¹⁹ Percentages calculated by the Department of Health.

²⁰ WACHS briefing note to the Minister for Health on 8 July 2009.

SJA is contractually required by DoH to maximise community participation in providing ambulance services and to train at least 1,500 volunteers each year; while responsibility for provision of service lies with each community.²¹ SJA employs regional managers and some clerical officers in the country, but not in every area. Where a regional manager is employed, that person (rather than a volunteer) handles local coordination of effort.

Country Ambulance Services – Inquiry Findings

The Inquiry heard submissions that the volunteer system was under stress. Four submissions to the present Inquiry and several paramedics argued that the volunteer model is failing, with numbers of volunteers declining significantly.

Some volunteers reported that they had insufficient training and lacked support from SJA. Criticisms were also made of the dispatch system from the communication centre.

Many submissions noted a shortage of paramedics and volunteers in towns all across WA. In 2007/2008, SJA reported 2,061 country volunteers in its service, but a submission to the Inquiry argued that this figure is inflated due to inaccuracies in records and that the actual number of active volunteers is much smaller.

Given the distances involved, it is not possible to provide the equivalent standard of metropolitan ambulance services to most country regions. That said, the country volunteers are typically dedicated and generous contributors of their time to provide ambulance services without any financial compensation and as such are a precious community resource. Volunteers are much appreciated by most of those receiving care from them. It has been argued that it would be impossible to provide country ambulance services without volunteers, and that the volunteer model at least guarantees some level of ambulance service in all areas.

Most volunteers have full-time employment and serve as ambulance officers in addition to work and family demands. This can be problematic when an ambulance job requires several hours of travel or several ambulance jobs occur in quick succession. Apart from time away from work and family, there is the risk of fatigue to the volunteer. Employers can be reluctant to release volunteers from work to attend emergencies, or it might not be possible for volunteers to attend emergencies due to their work location (e.g., offshore). In some situations this has meant that no ambulance has been available, or it has taken much longer to dispatch an ambulance than would otherwise have been the case.

Some submissions have expressed concern at the differences between paramedics' and volunteers' skill levels. Any criticism of volunteers' skills, while perhaps justified from a purely clinical perspective, is likely to have adverse effects not only on volunteers' enthusiasm (and subsequent recruitment of new volunteers) but could also influence paid staff (e.g., paramedics, nurses) to hold negative attitudes towards volunteers.

WACHS and SJA have jointly conducted trials of Rural Support Paramedic positions. In these cases, a paramedic has been employed to coordinate and encourage participation of volunteers in target areas. This could be one way to combat the alleged decline in volunteer numbers. WACHS has reported the trials as successful, but would require funding to maintain the positions. The role of the country paramedic requires further analysis within the context of integrated healthcare at a regional level.

The importance of maintaining volunteers, whilst acknowledging their changing role, is a critical part of the spectrum of ambulance service delivery across WA. The volunteer system is essential to country regions as there is no realistic alternative.

²¹ Individual communities are not signatories to the contract. The contract itself does not specifically define what constitutes a local community.

The Inquiry expects that the report's recommendations on the communication centre and ambulance infrastructure will have a positive impact on country ambulance services.

Notwithstanding, the Inquiry formed the view that the provision of emergency ambulance services in country areas was so important and complex that it requires a level of scrutiny not possible within the present three month review period. It is therefore proposed that a more detailed examination of country ambulance services occur following this Inquiry, and should include consideration of service delivery models tailored to meet the needs of individual country regions. In addition, examination of a separate rural contract, as recommended by WACHS, should also be considered.

Recommendation 6

Ambulance needs in country areas to be the subject of further assessment.

Training and Performance

Current Provision

Career Officers

Every year, around 45 applicants are selected to commence a Bachelor of Science degree through ECU with the ultimate aim of becoming a paramedic. The selection process for these positions is carried out by SJA during the second half of each year.

Successful applicants carry out the first year of their training at ECU and applicants are not employed by SJA at this time. Information regarding the training arrangements for paramedics in other states is at Appendix 5.

On successful completion of the first year, applicants are then employed by SJA as student ambulance officers and complete a further two years of study, which is carried out by SJA and ECU training staff. Applicants work full-time during these two years and carry out study in specially allocated blocks or by distance education. After passing all subjects and completing the 'on road' requirements of the course, a Bachelor of Science (Paramedical Science) is granted. Successful officers then complete a further 12 month internship under the guidance of senior paramedics before they become paramedics.

Initial training of ambulance personnel is backed up with ongoing skills assessment, refresher training and skills maintenance. Refresher training programs are used to monitor the clinical standards of ambulance personnel, to determine their skills progression and to assist in other forms of training.

Volunteer Officers

Volunteer training is conducted by career paramedics (who have been accredited with formal training and assessment qualifications) at sub-centres throughout WA. Within the current team of nine trainers, there are six regional training coordinators who are responsible for ensuring that training requirements and the requests of all sub-centres are met as efficiently as possible.

The following courses are currently offered to volunteers involved in any on road duties:

1. Introductory Ambulance Care Course – a non-accredited two-day (16 hour) course which provides a thorough familiarisation with all the basic skills and equipment used on a regular basis by volunteers.

2. Primary Ambulance Care Course – this training provides a volunteer with the knowledge and patient care skills which will enable them to operate as a competent member of an ambulance crew.
3. Advanced Ambulance Care – a two-day (16 hour) course, usually conducted over one weekend.
4. Driver Training – an optional two-day (16 hour) course conducted at sub-centres.

The following additional training is also available for qualified volunteers:

1. Skills and knowledge maintenance programme.
2. Cardiac monitor/defibrillators.
3. Skills update training.
4. Professional development seminars.

Inquiry Findings

Training appears to be of general interest across the entire ambulance service. Many respondents praised the university level of training and the arrangements provided in WA, while other stakeholders were concerned about the level of training provided to ambulance officers. From another side, volunteers and paramedics reported limited access to annual refresher training courses. In some cases, provision or access to refresher training is determined on a needs basis, while one submission claimed that volunteers pay for their own training if their sub-centre is operating at a loss.

Metropolitan paramedics have expressed admiration for country volunteers. While not detracting from the dedication of the volunteers, several submissions identified the training of country volunteers as a significant problem, both in terms of quality and regularity.

There are major differences between the training provided to career and volunteer officers. This leads to a disparity between the range of clinical procedures and interventions which may be performed by each kind of officer.

For paramedics the option of a tiered training pathway including a base level and critical care level (as required for the helicopter crew) was favoured. Many paramedics and the current training institution identified this for further review, although this raises organisational issues around the additional requirements and responsibilities of a more highly trained elite group, especially when the critical mass of paramedics is not large compared with their interstate counterparts. This can be further assessed during the implementation phase.

While many other health professionals are afforded training as part of their employment, it was reported to the Inquiry that ambulance officers are often expected to undertake their training during their annual leave. The issue of adequacy of continuing education was also raised, with some paramedics wanting more than two days (and preferably three days) of updating each year.

Many volunteers reported having to travel to larger regional centres in order to access training opportunities. The voluntary nature of the work often creates conflicting pressures on an individual's capacity to take time off work to attend refresher training.

There appears to be no system within SJA to ensure that continuing education is a mandatory requirement for employment, nor is there a mechanism for auditing the number of ambulance officers who have undertaken annual refresher training; several reported being behind with their refresher training. According to some submissions, SJA audits metropolitan paramedics' skills every 6 months, but country volunteers only every 3 years.

Ambulance officers may be called upon to provide aid without recourse to the intensity of training or level of equipment available to medical and nursing staff employed in hospital settings. This strain is amplified in regional and remote areas. Intensive medical care is less readily accessible to rural patients and ambulance officers, be they career paramedics or volunteer officers.

There is little in the way of monitoring the clinical performance of staff provided while a patient is in the care of country ambulance services. This means that the service has a low level of accountability and little scope for improvement. While the Clinical Team Leader in the communication centre is available to provide clinical guidance and feedback to country volunteers, this is only during day shifts. Thus, claims of inadequate performance are largely anecdotal, and should be more thoroughly investigated in the implementation phase of this Inquiry.

Recommendation 7

Expand the existing continuing education program to enable all paramedics, transport officers and volunteers to have their skills updated.

Prioritisation of Calls and Decision Support Tools

These issues were discussed in the previous section, under the Term of Reference relating to the communication centre.

Use of Procedures, Clinical Protocols and Guidelines

These issues are discussed in the next section, under the Term of Reference relating to clinical governance programs.

CLINICAL GOVERNANCE PROGRAMS

Determine the adequacy and effectiveness of current clinical governance programs, including their timeliness and whether appropriate recommendations have been developed and acted upon. Compare the service’s current clinical governance systems with the clinical review systems utilised in ambulance services in other jurisdictions within Australia.

The difficulties experienced by SJA in delivering an effective clinical governance system are not unique in Australasia. Over recent years, other ambulance services in this region have had periods where they have experienced similar difficulties, all leading to external investigation. These reviews have all highlighted the lack of well constructed clinical governance systems and clear operational frameworks for their implementation.

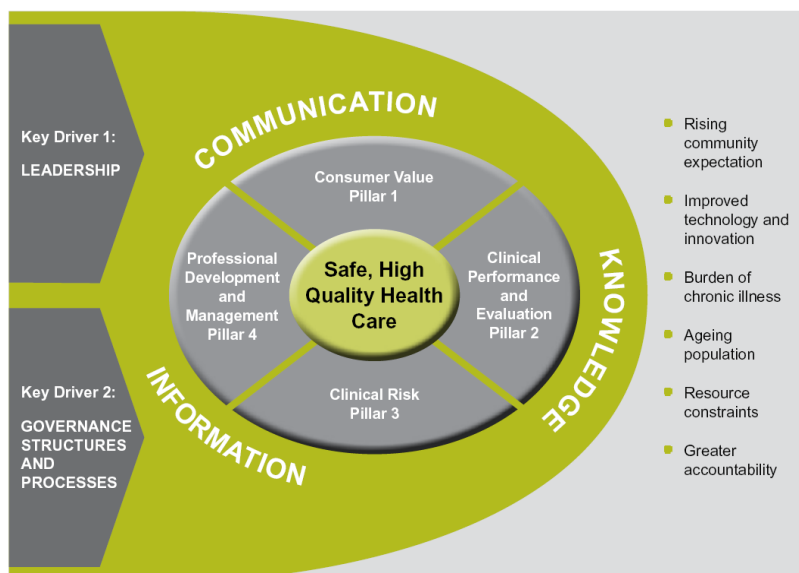
A key finding of a 2009 Ambulance Service review conducted by the Auditor General’s Office of the Australian Capital Territory Ambulance Service (ACTAS) was as follows:

“The clinical governance framework in place was not sufficiently robust and well documented to oversight the provision of quality care to patients” (p. 53).

A key recommendation of the same report was for “ACTAS to specify and document the role of each of its various clinical governance processes, how they relate to each other, and how these will be managed, measured and monitored within an overarching clinical framework” (p. 55).

Clinical governance is defined as “a systematic and integrated approach to assurance and review of clinical responsibility and accountability that improves quality and safety resulting in optimal patient outcomes” (WA Clinical Governance Guidelines No. 1, 1 March 2005).

The WA Health model of clinical governance is recognised internationally and underpins the current WA Health Strategic Framework for Safety and Quality, detailed in Figure 12.



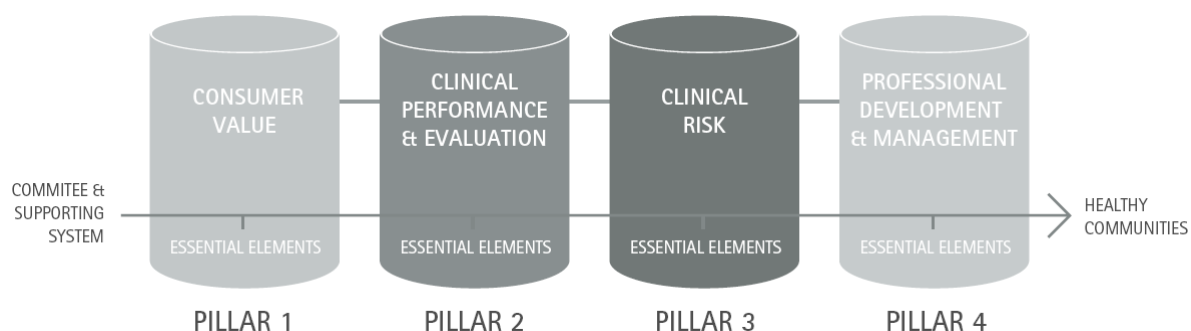
Source: Department of Health (2008). *Western Australian strategic plan for safety and quality in health care 2008–2013* (p. 8). Office of Safety and Quality in Healthcare.

Figure 12: Strategic framework for safety and quality in healthcare 2008–2013

Clinical Governance facilitates the identification, development and implementation of processes to monitor and improve the quality of clinical care services. These processes ensure that the organisation's delivery of care is of a high quality and to the appropriate clinical standards expected within a 'continuous improvement' culture.

Developed in 2001, the WA Health Clinical Governance Framework "defines a series of interdependent patient safety concepts that have been developed to foster a shared and unified approach to promoting and assuring the delivery of safe, high quality healthcare in WA".²²

The Framework, outlined in Figure 13, focuses on four critical areas referred to as the four 'pillars' of clinical governance.



Source: Department of Health (2005). *Setting standards for making health care better: Implementing clinical governance in WA Health Services 2005* (p. 8). Office of Safety and Quality in Healthcare.

Figure 13: Clinical Governance Framework for the WA public health system

The pillars are supported by communication, information and knowledge based on the guiding principles of leadership, partnership, communication, accountability, transparency, and equity and safety.

Eight clinical governance standards have been developed to assist health services in developing and implementing clinical governance structures and processes. They are:

- Accountability;
- Policy and strategy;
- Organisational structure;
- Appropriate resources allocation;
- Communication;
- Professional development and training;
- Measuring effectiveness; and
- External review.

Within the Clinical Governance Framework, DoH has implemented a range of complementary incident reporting systems to capture complex incident information from a variety of health services and sources.

²² Department of Health (2007). *Paving the way: Promoting safer health care in WA 2002–2007* (p. 11). Office of Safety and Quality in Healthcare.

The WA Sentinel Event Program sees both public and private²³ hospitals/health services notifying rare adverse events that have led to serious patient harm or death that were specifically caused by the delivery of healthcare.

In addition, the WA Review of Mortality²⁴ process has established a consistent approach to the classification and review of all inpatient deaths for both public and private hospitals/health services. This comprehensive process also provides a secondary identification source for sentinel events.

For WA hospitals/health services to effectively undertake sentinel event investigation and mortality review, robust clinical governance structures have been established. In addition, an integrated clinical incident management system^{25, 26} has been developed to enable timely identification, notification, investigation, analysis, reporting and implementation of recommendations to prevent the recurrence of adverse events.

The establishment of privileged environments in both public and private hospitals/health services ensures that clinical incidents/sentinel events are effectively investigated and robust recommendations are developed to prevent future recurrence. WA public hospitals/health services obtain qualified privilege via both Commonwealth and State legislation, namely the *Commonwealth Health Insurance Act 1973* and the *Health Services (Quality Improvement) Act 1994*.

The private health sector is required to notify and report sentinel events to DoH's Director Office of Safety and Quality in Healthcare under its licensing arrangements with DoH. Investigation of events is conducted under State qualified privilege legislation and the implementation of recommendations is monitored through the WA Sentinel Event Program.

Governance of the WA Sentinel Event Program, via the Sentinel Event Executive Review Committee and the Sentinel Event Review Group together with the Director Office of Safety and Quality in Healthcare, ensures:

- External clinical review of sentinel event investigation outcomes;
- Evaluation and monitoring of the effective implementation of recommendations arising from sentinel event investigation and mortality review to prevent future incidents occurring; and
- 'Closing the loop'²⁷ via the facilitation of system-wide learning and sharing of patient safety information/alerts (at a state and national level).

DoH's Clinical Governance Framework and associated strategic plan provide reliable templates for any organisation seeking to develop a continuous improvement approach to safety and quality patient care.

Adopting and implementing the key elements of the WA Clinical Governance Framework will be an important component of the recommendations of this Inquiry to address matters of safety and quality in the provision of services provided by SJA.

²³ Licensed private healthcare facilities covered under Annexure A are required to comply with the requirements of the *Sentinel event policy* (2008) and the *Western Australian review of mortality: Policy and guidelines for reviewing inpatient deaths* (2008).

²⁴ Department of Health (2008). *Western Australian review of mortality: Policy and guidelines for reviewing inpatient deaths*. Office of Safety and Quality in Healthcare.

²⁵ Department of Health (2008). *Sentinel event policy*. Office of Safety and Quality in Healthcare.

²⁶ Department of Health (2007). *Clinical incident management policy for WA health services using the Advanced Incident Management System (AIMS)*. Office of Safety and Quality in Healthcare.

²⁷ 'Closing the loop' is the completion of the process where recommendations arising from the investigation into clinical incidents are disseminated at multiple levels of the health system, resulting in change to procedure/policy/clinical practice to prevent the recurrence of healthcare related errors and ultimately increase patient safety.

Current Provision

In May 2009, SJA announced an enhanced structure and procedure for the development and governance of clinical practice. The key components of this new approach were:

- the establishment of a Medical Policy Committee (MPC);
- the appointment of a Clinical Governance Manager; and
- the development of a Clinical Reference Group (CRG) which would be open to all interested paramedics.

The MPC consists of a group of appropriate medical specialists who are responsible for assisting the Medical Director with the establishment of medical policy. This replaces the previous Ambulance Service Medical Officers group.

The MPC will:

- provide a greater level of transparency about the development of clinical practice;
- examine and review CPGs;
- consider clinical practice in other jurisdictions in Australia; and
- receive reports from the CRG and Medical Director and decide on any additions or alterations that should be made to CPGs.

The MPC will meet regularly to ensure the quality of clinical care at SJA continues to improve. This process has been enhanced by the introduction of the Clinical Team Leader positions and continues to be refined. During the course of the next year this area will benefit from the appointment of a senior manager to head clinical governance and communications. This role will be the cornerstone of improving the link between medical policy and operations.

The Clinical Governance Manager is responsible for providing management and guidance for the organisation's Clinical Team Leaders, who are the 'front line' senior paramedics responsible for ensuring paramedics are practising within the CPGs.

The CRG will comprise interested paramedics and the Clinical Team Leaders and will be convened each quarter with the aim of providing a forum for paramedics to consider, present and challenge current and potential paramedic clinical practice. These sessions will be facilitated by the Clinical Governance Manager, who will assist the group with the procedures to be followed in considering and presenting ideas for change. This group will follow a structured approach, aimed at providing consultation and clinical input from on-road staff. The CRG will provide a report, with recommendations where appropriate, for consideration by the MPC at its regular meetings.

Within SJA, sentinel adverse events (SAE) are defined as clinical events which have an actual or potential impact on the patient's condition or outcome whilst in the care of the ambulance service. All SAEs require full investigation and are defined as the following:

- Any medication error;
- Any unexpected injury sustained by the patient during ambulance care;
- An undetected oesophageal intubation; and
- Any report from a clinician (external to or within the ambulance service) indicating that actions or inactions in the pre-hospital care provided had severely compromised the patient's clinical condition or led to death.

The SJA procedure for managing SAEs is at Appendix 6.

Inquiry Findings

Over the years, and as the result of various reviews of ambulance services, SJA has attempted to establish robust clinical governance within the organisation. More recently, SJA has acknowledged the need to strengthen clinical governance processes and, prior to this Inquiry, had commenced aligning its strategies with DoH's Framework for Clinical Governance.

SJA management has indicated they will integrate the findings of this Inquiry with their plans and actions to enhance the clinical governance system within the organisation.

The review of critical incidents and consideration of stakeholder submissions underscores the importance of robust clinical governance processes. If implemented effectively and sensitively, with full engagement of paramedics, these processes offer a mechanism for both enhancing the quality of care and addressing the workforce issues, with leadership as the complementary driver for change.

DoH's Strategic Framework for Safety and Quality 2008–2013 has been used as a benchmark to measure the current SJA clinical governance system. An assessment of SJA's system against the eight standards of clinical governance (see Appendix 7 for details) found that areas in early development include:

- More explicit documentation of individual, unit and system accountability;
- Policy and strategy, specifically consumer value, clinical performance and evaluation and clinical risk management;
- Incorporating clinical governance policies into the business structures; and
- Prioritisation of policies and strategies for corporate governance.

Areas requiring further development included:

- Accountability, specifically development and implementation of policy and strategy to ensure a 'top down' approach does not prevail;
- Implementation of clinical governance strategy integrated through the entire organisation;
- Appropriate resource allocation;
- Professional development and training;
- A comprehensive communication strategy for all staff to ensure a greater understanding of policies and standards;
- Key performance indicators (KPIs) and a reporting framework that clearly reflect the eight clinical governance standards, for both metropolitan and country services; and
- Provision of external review on a regular basis.

WA shares many of the same difficulties as other services, both nationally and internationally. There is no national framework for the provision of ambulance services in this country, and each jurisdiction has its own arrangements, with limited opportunity to benchmark clinical governance. Benchmarking would facilitate continuous improvement within WA, but it must be acknowledged that there are unique difficulties, particularly due to the size and diversity of the state, and its population distribution.

In 2008, the New Zealand House of Representatives Health Committee made several recommendations, including developing national clinical standards and performance indicators for ambulance services, establishing a national training, accreditation and registration program for paramedics and addressing of funding and infrastructure concerns.

In NSW, ongoing problems with the culture and management of that state's ambulance service have been identified in a number of reports. In 2008, the first Quality Systems Assessment (QSA) of the Ambulance Service of NSW was undertaken. The QSA program was one of the key recommendations of the NSW Patient Safety and Clinical Quality Program originating from the Walker report into Camden and Campbelltown hospitals in 2004.

The NSW ambulance service survey covered all aspects of the organisation, from senior administration to the individual sectors responsible for delivery of ambulance services at the operational unit level. The QSA process was facilitated by an external agency and the results obtained provided a baseline measure of the self-assessment of the services' performance in the implementation of various quality and safety programs and policies. The QSA methodology allows for development of reporting that will provide meaningful comparison and address issues of relative risk while allowing the entire organisation to identify themes, trends, key issues and opportunities for improvement.

The recommendations emanating from this comprehensive, systematic process fell into nine key areas. While it is noted that these recommendations were specific to the NSW ambulance service, they are included here to give the reader a 'flavour' of the coverage of each of the domain areas.

"Governance

All Severity Assessment Code 1 investigation reports and death reviews must be reported to the Clinical Governance Committee.

The ambulance service must ensure all sectors have a dedicated forum for review and discussion of items relating to quality and safety performance issues.

Risk Identification and Management

The ambulance service needs to develop a more uniform, integrated system for the identification and management of patient safety and clinical risks throughout the service.

The ambulance service must have systems in place to ensure, that in addition to the circulation of patient safety alerts, there are defined accountabilities to ensure that changes are made. Further, an evaluation/audit process is undertaken to 'close the loop' in terms of ensuring patient safety and quality.

Performance Review

The ambulance service must ensure the provision of ongoing performance review of all personnel throughout the organisation.

System Wide Communication

The ambulance service must have systems in place to ensure that in relation to clinical indicators and KPIs.

- *Changes in policy and/or KPIs are disseminated throughout the service;*
- *That the dissemination 'modes' are effective; and*
- *There is a formal process to evaluate the implementation and efficacy of changes.*

The ambulance service must ensure that the findings of any review of critical incidents or root cause analysis are fed back to the relevant staff and ensure that all officers are aware of the process for accessing this information.

Death Review

The ambulance service must have in place a consistent and timely process for auditing 'reviewable deaths' and ensure that findings are fed back to the Clinical Governance Committee and relevant staff in a timely manner.

Open Disclosure

The ambulance service must ensure that the following steps are in place to support the implementation of the open disclosure policy:

- *Provide adequate training in the open disclosure process;*
- *Provide support for the staff involved in the process; and*
- *Ensure adequate documentation in the patient healthcare record.*

Quality Review Activities

Working in partnership with NSW Health, the ambulance service must establish 'best practice' models for staff to undertake clinical audit, patient healthcare record review, peer review or other quality review activities.

The ambulance service must ensure that communication regarding the piloting and introduction of new procedures is effectively provided to operational units.

Infection Control

The ambulance service continue to adapt current NSW Health policies on infection control that meet the specific needs and challenges of the ambulance service and audit performance against this policy.

Patient Safety

The ambulance service needs to identify opportunities to improve existing protocols and continue its current audits of the patient healthcare record".²⁸

The Inquiry formed the view that the underlying issues of culture and lack of trust identified in the NSW Ambulance Service review are also present within SJA. That being the case, and whilst acknowledging that SJA has the capacity to develop robust clinical governance systems independently, the Inquiry proposes that SJA work with an independent agency using the QSA or similar methodology to ensure that all parties within the organisation are effectively included in developing the clinical governance systems, thereby reducing the time taken to implement the program.

Under these arrangements, DoH will work alongside the SJA organisation to develop a clinical governance system based on sound principles and concepts, and tailored to the unique needs of SJA. This will enable SJA to provide a contemporary, safe service in a culture of continuous improvement.

Recommendation 8

SJA develop and implement clinical governance structures and processes that align with the Strategic Plan for Safety and Quality in Healthcare 2008–2013 and the WA Clinical Governance Framework.

²⁸ Clinical Excellence Commission (2008). *Quality Systems Assessment December 2008: Summary of findings for the Ambulance Service of NSW*, pp. 8–9.

Recommendation 9

SJA notify and report sentinel events to DoH's Director Office of Safety and Quality in Healthcare.

Use of Procedures, Clinical Protocols and Guidelines

Clinical procedures, protocols and guidelines describe the appropriate treatment regime required by paramedics when providing emergency medical care under normal circumstances. SJA has approximately 200 CPGs which are reviewed and updated regularly by a formal committee.

Introduction of a new skill, procedure or piece of equipment to SJA would normally be via one of a range of formal mechanisms such as the supervisor of a staff member, improvement log, equipment review, occupational health and safety, training or the Medical Director. SJA has guidelines for submitting a proposal and information as to how this will be processed.

The details of the CPGs are informed by a clinical group from the Council of Ambulance Authorities (CAA) and there is consensus on most, but not all, issues. It is recognised that alternative methods of treatment may exist and from time to time circumstances may arise where the management of a particular patient in a life threatening situation may require the guideline to be varied by some aspect. It is a requirement that all variations are subject to a process of clinical audit.

Separate CPGs have been established to address the needs of the helicopter crew.

Inquiry Findings

One of the subjects causing the most angst, not only among many of the paramedics who responded to the Inquiry, but also among doctors working in emergency medicine, was the use of procedures, clinical protocols and guidelines.

Many respondents urged the Inquiry to look closely at best practice and the evidence behind each clinical protocol as well as its use in other jurisdictions and its potential impact on patient care. Some warned of the unnecessary level of complexity that comes with the introduction of new, or changes to existing, techniques.

Similarly, some respondents supported the judicious approach taken by SJA in adopting new practices and procedures, while other respondents criticised SJA for not allowing the uptake of 'improved' practices implemented in other parts of Australia. Much was said about the differences between the 'swoop and scoop' model compared with the 'stay and play' approach to patient care.

Consultation with, and submissions from, some paramedics suggested the situation regarding the appropriateness of clinical protocols was exacerbated by the recruitment of many paramedics from overseas, where clinical service responses differed markedly.

The following are examples of the clinical protocols that paramedics, in particular, wanted reviewed:

- Paediatric protocols and equipment;
- Intravenous glucose for hypoglycaemia;
- Adrenaline;

- Intubation to protect the patient's airway in the case of obstruction and provide a means of mechanical ventilation;
- Morphine for pain management (which is currently not permitted under the *WA Poisons Act 1965*);
- Intravenous narcotic pain management options for cardiogenic chest pain;
- Chest decompression for the treatment of pneumothorax events;
- Continuous positive airways pressure for pulmonary oedema;
- 12 lead electrocardiograph and transcutaneous pacing for cardiac events;
- Spinal extrication boards and extrication events; and
- Thermometers.

There were mixed views on the current usage of pain management medications, specifically fentanyl, ketamine and methoxyflurane. Many paramedics were critical that morphine was not allowed to be used.

SJA has a strict process of review before adoption of clinical protocols which has seen local emergency ambulance services lead Australian paramedic practice with some procedures (e.g., having heart monitors and defibrillators on all ambulances), whilst other procedures differ markedly with interstate practice. SJA has agreed that some practices should be reviewed in the light of more recent information, or where no evidence is available, which precludes a technique from making a difference to patient care. However, the Inquiry and SJA noted that 'doing more' in the pre-hospital environment can be associated with 'doing worse' for patient care.

A fully functional clinical governance system is responsible for making decisions on clinical protocols. The paramedics contributing to the Inquiry acknowledged that, once a more rigorous clinical governance system was in place, they would accept the outcomes of a review of a large number of CPGs that are currently prioritised for evaluation.

National Paramedic Registration Scheme

A number of submissions to the Inquiry pointed to the fact that paramedics are not registered health professionals in Australia. The recent NSW Ambulance Review recommended that consideration be given to registering paramedics and pointed to the opportunity arising from the Council of Australian Governments endorsed National Registration and Accreditation Scheme (NRAS) for health professionals.

In the Intergovernmental Agreement for the NRAS, all Australian Governments agreed on the following key principles for national registration:

1. To provide for the protection of the public by ensuring that only health practitioners who are suitably trained and qualified to practise in a competent and ethical manner are registered;
2. To facilitate workforce mobility across Australia by reducing the administrative burden for health practitioners wishing to move between participating jurisdictions or to practise in more than one participating jurisdiction;
3. To facilitate the provision of high quality education and training of health practitioners;
4. To facilitate the rigorous and responsive assessment of overseas-trained health practitioners;

5. To facilitate access to services provided by health practitioners in accordance with the public interest; and
6. To enable the continuous development of a flexible, responsive and sustainable Australian health workforce and to enable innovation in the education of, and service delivery by, health practitioners.

Changing to a registration model would bring these principles into play for paramedics and offers an opportunity to alleviate some of the tension between SJA and their paramedic staff. Currently, ambulance providers are required to indemnify their workforce for their performance, and are totally accountable for the quality of the care provided, whilst the individual is protected from direct accountability in a non-registered health professional model. Not surprisingly, this leads to a more prescriptive approach to approving CPGs and scope of practice and causes division between parties.

Registering paramedics would introduce greater balance into the equation as the paramedics would need to take responsibility for their performance, professional development and practice standards in partnership with the employer. Indeed, if paramedics are to work independently in community settings and extend their scope of practice alongside other registered health professionals, it is imperative that they are included in the NRAS within the next 3–5 years.

The Australian College of Ambulance Professionals (ACAP) has supported this approach. However, progress along this path is currently hampered by there being no registration body within Australia, though there are some initiatives that aim to boost professionalism in the industry, namely CAA and ACAP.

CAA has embarked on a program to develop national education standards and to establish means of accrediting education providers. ACAP offers a self regulation program in the form of its voluntary National Professional Recognition Program. However, due to the limitations of a voluntary regulatory program, the absence of a paramedic registration scheme was raised throughout the Inquiry as being of concern to public safety.

If paramedics were to be included with other groups, recently added to the range of registered health professionals in all states, the following benefits should follow:

- better safety;
- improved quality of service;
- better access to services;
- facilitate change and innovation;
- greater transparency of operations and practice;
- greater workplace flexibility through mobility and portability;
- enhanced public confidence; and
- greater equality, fairness and access to the profession.

For this system to work, an accreditation body would need to be established that:

- sets minimum entry standards and accredits training;
- formulates professional standards to which individuals must adhere ;
- defines the scope of professional practice;

- registers and monitors individual practitioners;
- enforces professional roles where necessary;
- implements a disciplinary procedure for individuals who are negligent or breach the professional roles of practice of professional ethics.

Recommendation 10

DoH pursues, through the Australian Health Workforce Ministerial Council, the national registration of paramedics.

COMPLAINT MANAGEMENT SYSTEM

Assess the consumer complaint management system and its ability to develop and act upon outcomes.

Current Arrangements

A document entitled *St John Ambulance (WA) Formal Complaint Investigation Procedures* describes the process followed by SJA staff in investigating a complaint.

Once a complaint is received, it is directed to the Chief Executive officer (CEO) and then referred to the relevant Operational/Clinical Team Leader. The Operational/Clinical Team Leader gathers and analyses information concerning the complaint and prepares an investigation report noting the information obtained and recommendations for corrective action. The recommendations cover how the complaint can be resolved and strategies required to prevent similar incidents from occurring in the future.

Actions arising from the complaint are carried out by the Operational/Clinical Team Leader, the Manager Metropolitan Ambulance Service or the Manager Metropolitan Operations in accordance with SJA's Performance Management Guidelines.

Where appropriate, the complainant is contacted and advised of the outcome of the investigation and a check made on whether all aspects of the complaint have been dealt with and resolved to their satisfaction.

Inquiry Findings

The existing SJA complaints mechanism is not open and accountable. There is no obvious complaints mechanism contained on SJA's website or in any other publicly available documentation, nor is there information available to the public on how to lodge a complaint or how the complaint will be handled.

In circumstances where the complaint is unresolved, SJA does not have a mechanism in place for the internal review of the complaint by a senior officer who has had no prior involvement in the matter (e.g., review by a Complaints Officer or Performance Standards/Conduct Unit).

It is not obvious what individuals can do if they remain unhappy with SJA's internal investigation of their complaint. However, as a health service provider, SJA is subject to the provisions of the *Health Services (Conciliation and Review) Act 1995*. Consequently, any complaint concerning SJA can be referred to the Office of Health Review, an independent body established to look at complaints about health services, which is subject to review by the State Ombudsman.

It is unclear to what extent SJA's existing complaints mechanism is effective in its ability to develop and act on complaint outcomes in order to prevent similar incidents occurring in the future. SJA does not appear to have built its complaints management process into the organisation's strategic and operational planning processes. No reference is made to it in annual reports. If this were to occur it would send a clear message to the public that SJA is committed to the resolution of complaints and to improvements to service delivery. It is then reasonable to expect that SJA, on a regular basis, monitor, review and improve its complaints handling process, the resources required (including personnel and computer software) and the data to be collected.

A review of the complaints mechanisms used by ambulance services in other states and territories indicates that there is no consistent approach to managing complaints.

For example, in NSW, information is available to the public in the “Contact Us” section of the ambulance services website. It informs the public on how to make a complaint about their treatment by the ambulance service, provides details on what information to provide in the complaint and how the complaint can be progressed if the complainant is not happy with how their complaint was managed. Complaints may also be made in person, by telephone, letter, and survey or even through the media.

In Victoria, complaints can be lodged via Ambulance Victoria's website, in writing, via email or verbally (most are verbal). Details are logged on a form, registered in a database and then investigated. With regard to the management of the complaint, there are four basic phases: registration, notification, investigation and closure. The complaints management process forms part of Ambulance Victoria's service improvement system.

SA has no obvious complaints mechanism. There is an electronic link on their website for providing “feedback about the service that you received—either positive or regarding areas we can improve” under the “Contact Us” section.

SJA has reported that, on average, the organisation receives about 5 complaints for every 10,000 cases. By way of comparison, Ambulance Victoria Metro received 10 complaints per 10,000 cases in 2007/08 and 9 per 10,000 cases in 2008/09. The NSW Ambulance Service received about 8 complaints per 10,000 cases in 2008/09, about the same as they received in 2007/08.

It is not possible to make any judgment on the comparative level of complaints between states. The relatively low level of complaints in WA may equally be indicative of good service provision, a poor complaints mechanism, accessibility of the system or differences in the way complaints data is recorded.

The importance of appropriate complaints mechanisms for health service providers is articulated by the Australian Commission of Safety and Quality in Healthcare in its Australian Charter of Healthcare Rights, which states:

“The opportunity to comment is important and enhanced by being attentive to the concerns of patients or consumers and/or carers and encouraging them to engage in two way communication. Patients, consumers and/or carers should be helped to articulate their concerns and be informed of comment options available to them.

Healthcare providers should facilitate the efficient and equitable resolution of complaints by participating in organisational processes and should also look for improvements in health care provision as an outcome from interactions with patients, consumers, their carers and their families” (p. 2).

For a complaints mechanism to be an effective management tool it needs to be well known and include information about the right to complain, how to do it, where to do it and how the complaint will be handled. If the complaint is still not resolved to the individual's satisfaction, the individual needs to be advised of alternative actions or review opportunities.

There needs to be a systematic approach to recording complaints and outcomes with data collected in sufficient detail to allow analysis to guide business improvement.²⁹

²⁹ There are a number of reference sources that set out the guiding principles of an effective complaints management system. For example, a key part of the WA Government's commitment to the implementation of effective complaints management is the adoption, in *Guidance to good practice in the Western Australian Public Sector*, of the *Australian Standard 10002-2006 on complaints handling (AS ISO 10002)* as a best practice guideline. The Australian Standard sets out a framework for managing complaints including practical suggestions for procedures, implementation and recommended features of complaints systems.

SJA should demonstrate a commitment to effective complaints handling that reflects the needs, expectations and rights of individuals. SJA needs to recognise that individuals have a right to complain and provide a mechanism for complaints to be addressed in an efficient, fair and timely manner.

The complaints process must be fair to both the complainant and the person (or persons) about whom the complaint is being made. All complaints must be treated as legitimate and investigated without prejudice. Complainants and respondents should be afforded natural justice throughout the complaint process.

Recommendation 11

Strengthen the capacity of the complaints system including a statement of principles, establishment of a helpline and online complaints registration.

OTHER CONSIDERATIONS

Advise the Minister of any matters revealed during the investigation which warrant further assessment.

Ambulance Wait Times ('Ramping')

SJA operates in the broader context of hospital and emergency services within WA. Ambulances typically deliver patients to the emergency department (ED) at a hospital. EDs have a limited number of places, so coordination of ambulance and ED workloads is vital. If an ambulance arrives at an ED to find no places available, the ambulance is said to be ramped—the ambulance crew cares for the patient in the vehicle on the ED's entrance ramp until a place becomes available.

A ramped ambulance is one that is not available to respond to new emergencies, so the impact of ramping on ambulance service responsiveness cannot be ignored.

Several initiatives have been explored to address this problem, including the introduction several years ago of the Ambulance Network Coordinator, whose role is to integrate real-time information on ED capacity, existing patient transfer bookings and assessment of patient urgency to ensure that all ambulance tasks are distributed to hospitals best able to meet their needs in a timely fashion.

Also, in 2007, SJA submitted a proposal to the former Government that involved using paramedics to assist with the management of patients at EDs until they could be processed through the system. The proposal may have seen the impact of ramping significantly reduced. The Inquiry was advised that, while the former Minister for Health and DoH approved the proposal, SJA was not able to proceed as the LHMU was reportedly unwilling to provide support to paramedics being employed in a way they regarded as inconsistent with their skills and function.

Currently, DoH's main focus to address the ambulance wait time issue is the Four Hour Rule. The Inquiry was of the view that, while this initiative has the potential to significantly reduce ambulance wait times, there would appear to be several complementary initiatives worthy of consideration, as outlined below.

Four Hour Rule

Based on a similar program in the UK, this initiative began in April 2009, with the aim of ensuring that at least 98% of patients arriving at EDs are seen and admitted, discharged, or transferred within four hours, unless required to stay in the ED for medical reasons. The Four Hour Rule is being implemented in three phases for meeting the 98% target: (1) most major hospitals in the Perth metropolitan area by April 2011; (2) most other hospitals in Perth and surrounding areas by April 2012; and (3) country hospitals and remaining Perth hospitals by April 2013. Initially, a target of 85% of ED attendances was set as a 12-month target. In August 2009, Princess Margaret Hospital's ED had met this target, with the other three phase 1 hospital EDs at around the 50% mark.

Alternatives to ED Attendance

Contrary to popular belief, many of the calls requesting an ambulance are not considered to be emergencies from a clinical perspective. Twenty-nine percent of calls answered by the communication centre represent non-urgent cases.

In 2008/09, only 26% of ED presentations resulted in a hospital admission.³⁰ There are therefore potential opportunities to reduce the demand on ambulance and ED services.

Paramedics, communication centre staff and SJA management have reported that a consistent proportion of transports to EDs occur because there is nowhere else to take patients requiring non-urgent medical treatment and there is inadequate support for paramedics to treat (rather than transport) them.

There are a number of programs either being trialled or already established to provide alternatives to ED attendance, including Secondary Triage, Friend In Need – Emergency, Triage-at-the-Scene, and After Hours General Practice (GP) Clinics.

Secondary Triage

The secondary triage initiative requires SJA to transfer certain Priority 3 (non-urgent) calls to *healthdirect*. In these cases, SJA conducts its triage process, establishes that a caller does not require an ambulance urgently (i.e., not Priority 1 or Priority 2), and then transfers the call to *healthdirect*, where registered nurses conduct a more detailed triage process. This second triage process will either identify suitable alternatives (such as seeing a GP within 24 hours) or in a small number of cases will determine that an ambulance is in fact required. In the early stages of the program, around 90% of calls transferred from SJA to *healthdirect* did not require ambulance transport for a patient, with only a small proportion of calls being transferred back to SJA for dispatch of an ambulance.³¹ This demonstrates the significant effect the secondary triage program can have on reducing demand for ambulance and ED presentations.

In June 2008, with SJA's agreement, DoH placed two *healthdirect* nurses at SJA's call centre for four weeks to increase the number of calls transferred. During this trial, the number of calls transferred (426) increased by 167% over the average of the preceding 11 months. After the trial ended, the number of calls decreased over the subsequent three months. Despite the surge in call activity during June 2008, there was no apparent decrease in call handling performance, so *healthdirect* demonstrated the capacity to handle the higher level of call activity from the secondary triage program while maintaining patient safety. It is clear that SJA's commitment to the program has been low, possibly due to work pressures in the communication centre. The Inquiry believes that a higher level of commitment to the secondary triage program by SJA is required going forward.

Friend In Need – Emergency (FINE)

In July 2009, Silver Chain put forward a proposal, in conjunction with SJA, for the FINE program, which aims to provide a healthcare pathway for patients who call for an ambulance but, after assessment, do not actually need one on medical grounds, thereby reducing demand on ambulances and EDs.

The FINE program will operate only in the Perth metropolitan area and will align with existing programs such as Hospital in the Home (HITH) and the Four Hour Rule.

The Priority Assessment Service (PRA) will be offered as part of the FINE program. PRA is a 24/7 service for patients requiring advanced clinical assessment, which will usually be provided within four hours of request by a PRA staff member visiting the patient. If PRA is not available, patients will be referred to *healthdirect*. Following PRA visits, patients would be referred to HITH, community nursing, another Silver Chain program or another appropriate program.

³⁰ Data supplied by the Department of Health's Information Management and Reporting Directorate on 1 October 2009.

³¹ Department of Health (2007). *healthdirect 1st Quarter Report 2007*. Project Development Division.

Triage-at-the-Scene (TATS)

The 2008 TATS program aimed to reduce unnecessary ED presentations. If ambulance officers arrived at a scene and found that the patient was not critically ill, they would help him/her call *healthdirect* to receive triage. Subsequently, if the patient, paramedics and *healthdirect* agreed that the patient did not need transport to an ED, he/she would not be transported, and would instead be advised on further action (e.g., see a GP within 24 hours, self care, etc.).

At the time of the trial, DoH suggested that SJA's fee structure for patients involved in the TATS trial should be changed, but SJA decided to still charge TATS patients the standard low-priority fee of \$346 even if the patient was not transported.

When the trial ended, the recommendation was that TATS should not continue if the level of secondary triage calls transferred from SJA was not maintained.³² Secondary triage is much more cost-effective than TATS; in secondary triage, transfer of a call to *healthdirect* occurs before an ambulance is dispatched, while in the TATS program, an ambulance is dispatched and the patient liable for a fee before any call is made to *healthdirect*. At the time of writing this report, the TATS program is non-operational.

Outreach Nurses

There are around 7,000 patient transfers between metropolitan residential aged care facilities and public EDs each year. A significant proportion of transfers are for wound care, access to radiology services or GP review. In 2007/08, the State Health Research Advisory Committee supported a project to establish an Outreach Nurse Service to attend residential aged care facilities, and this service resulted in a 20% reduction in ED presentations for residents of these facilities.³³

After Hours GP Clinics

Many tertiary and peripheral hospitals have satellite after hours GP clinics on site, so low-acuity patients may be referred to these clinics, if medically appropriate. Clinics may provide treatment in non-emergency cases while retaining the option to quickly transfer patients with urgent conditions back to EDs. As such, these clinics represent an appropriate destination for patients triaged by *healthdirect* as not requiring ED attendance.

Integrated Statewide Emergency Care System

During the course of the Inquiry, the adequacy and effectiveness of the emergency rescue helicopter's tasking was raised. The helicopter service provides transport for incidents such as car accidents, cliff rescues, off-shore rescues and mining and farming accidents (primary retrievals), as well as transferring critically injured patients from health facilities in country regions (secondary retrievals).

The current helicopter service is managed by the Fire and Emergency Services Authority of WA (FESA), funded by the State Government and sponsored by the Royal Automobile Club. The helicopter and crew (including an SJA critical care paramedic) are based at Jandakot Airport, are on 24/7 alert and can be airborne within 15 minutes.

³² Department of Health (2008). *Report to the ED Taskforce: Trial of Triage-at-the-Scene (TATS)*. Project Development Division, 11 November 2008.

³³ Reduction in ED presentations for residents of aged care facilities over 14 months, as supplied by the Department of Health's South Metropolitan Area Health Service on 1 October 2009.

The helicopter has an operating range of 200 km from Perth, thus covering 90% of WA's population. There were 300 flights in 2008/09, down 64 flights (18%) from the previous year.

For primary retrievals, the responsibility for activation, flight crew composition, patient management, and patient destination (i.e., 'tasking') is solely SJA's responsibility,³⁴ while for secondary retrievals the responsibility for tasking rests with the RFDS. The reasons for this split responsibility are unclear.

There are specific criteria for the tasking of this service, with intensive regular review of its use by the Emergency Rescue Helicopter Service (ERHS) Tasking Review Committee, which is co-chaired by DoH and FESA representatives.³⁵

Nevertheless, due to concerns raised regarding the tasking of the helicopter and insufficient time during the Inquiry to investigate this matter thoroughly, the Inquiry is of the view that the general role of helicopters, as part of primary and secondary retrievals, and their cost effectiveness, requires further exploration.

A dedicated aero-medical critical care service, CareFlight International Air Ambulance, was consulted as part of the Inquiry. With bases in Perth, Sydney, Darwin and Cairns, CareFlight is an Australian retrieval and repatriation service, comprising teams of doctors with specialist qualifications in anaesthesia, intensive care or emergency medicine, nurses and paramedics. This means that very sick patients who need to be moved between hospitals, or severely injured patients who need to be treated at the accident scene, can be attended by critical care specialists who can perform 'physician only' procedures if required. The place for such a service in WA is, in the view of the Inquiry, worthy of further consideration and analysis.

The RFDS is a critically important patient transport service in country regions of WA. In many cases, due to the distances involved, the only viable mode of transport is air travel. Typically, ambulances will be involved at both the origin and destination of an RFDS flight.

One possibility for better integration between emergency transport services is for a single communication centre (staffed by both SJA and RFDS) to be established. This could be more cost effective and assist in improving the coordination of patient transfers from country regions. From comments made in submissions and during the consultation process, the Inquiry considers that further work needs to be done to improve patient transport systems in WA, specifically in the areas of communications and coordination.

A further suggestion was made by some stakeholders for a shared communication arrangement with either the WA Police or FESA to improve cost effectiveness. This could be a focus of further analysis.

Legislation

The Inquiry noted there is no legislation on the provision of ambulance services in WA. Currently, SJA monitor and report on their performance without any independent verification. This was an issue identified in an earlier review more than 10 years ago. The review committee at that time considered legislation necessary for:

1. ensuring that commercial competition between service providers did not put patients or the general public at risk; and
2. providing statutory protection to qualified ambulance officers—in particular, volunteers—from legal action for acts of good faith.

³⁴ Fire and Emergency Services Authority (2005). *Emergency rescue helicopter service: Safety procedures for St John Ambulance, FESA & WA Police Service personnel*. Accessed from http://www.fesa.wa.gov.au/internet/upload/shared/docs/ERHS_Safety_Procedures_SJAFESA.pdf on 30 September 2009.

³⁵ Another committee, the ERHS Clinical Audit Sub-Committee, is chaired by SJA's Medical Director and is responsible for provision of clinical guidelines, advice on clinical equipment, and clinical audit for the helicopter service. Information supplied by SJA on 30 September 2009.

A key concern now must be appropriate regulation of the ambulance service.

The Inquiry formed the view that, during the implementation phase, work should be undertaken on introducing legislation that will pick up the earlier report recommendations and additionally consider the following issues:

- Registration of paramedics;
- Involvement of the Office of the Auditor General;
- Freedom of Information;
- Regulation and control of ambulance services, including KPIs; and
- Application of other State legislation.

This process should coincide with the formulation of the next SJA contract to ensure consistency.

Inter-Hospital Patient Transport (IHPT)

In addition to emergency ambulance services, SJA also provides patient transport services. SJA's patient transport officers handle uncomplicated and routine patient transfers, which occur during the day and usually between health facilities. Patient transport officers complete a Certificate III in non-emergency client transport that allows them to undertake routine patient transport for low acuity patients in Perth. In WA's country regions, volunteers may be called on to perform patient transfers.

The Inquiry noted the 32% increase in IHPT from 19,467 transfers in 2007/08 to 25,663 in 2008/09. This substantial increase raised concerns that IHPT negatively impacts upon the provision of emergency ambulance services, notably in terms of availability of emergency resources (i.e., reduced stand-by time).

Ambulances can be used for patient transport, and it might be medically necessary for this to occur at times, but doing so prevents those ambulances from being on stand-by to attend to emergencies. Apart from this issue, there is also the view that using specialised vehicles and staff for general patient transport tasks might not be the best use of resources.

Private operators and some hospitals are involved in the non-emergency transport sector. Their coverage is limited and SJA largely has a monopoly over services. DoH conducted an internal review of ambulance services in 2003 and recommended that emergency and non-emergency (patient transfer) services be purchased as separate products, but that the emergency ambulance service provider also provide non-emergency medical level 2 transport (in which the patient requires a high level of care).

While not directly covered in the Terms of Reference, the Inquiry heard many submissions concerning the disjointed and incongruous interface between IHPT and emergency ambulance services. Both of these services are substantially provided by SJA and tasked from the communication centre.

As previously mentioned, there is also a small service owned and operated by the tertiary hospitals and, in addition, some private operators. The point was consistently made by paramedics that hospital transfer commitments were impeding the emergency service, particularly in the Peel Region.

One possible solution is to increase the number of patient transport vehicles and associated transport officers, and to separately task these transfers. Another option is a system whereby patients being transferred from one facility to another are not re-triaged at the receiving ED. The Inquiry noted that any or all of these initiatives would likely have a positive impact on the existing congested IHPT system.

Historically, DoH has viewed emergency ambulance services and IHPT as separate contracts with IHPT being negotiated by the hospital sector directly. The Inquiry is aware that DoH proposes exploring the most effective way of delivering IHPT, which is likely to be through a more competitive approach, resulting in the inclusion and negotiation of a common use agreement. Notwithstanding, the Inquiry considers that strategically, these contracts should be considered in conjunction to ensure that they complement each other.

Strategic Engagement/Planning

There is a need for high level interaction between DoH and SJA to set the strategic direction and priorities for the ambulance service. In the past, the Ambulance Liaison Committee (ALC) existed for this purpose, but is currently inactive.

The Inquiry is of the view that either the ALC be resurrected or an alternative mechanism put in place to enable a suitably strategic dialogue to occur between the two organisations. This interaction, by its very nature, needs to be separate from any contract administration process.

Culture

Paramedics who responded to the Inquiry portrayed their work environment as negative and unnecessarily stressful in parts. They described a workplace with minimal communication and processes lacking in transparency. They claimed that, although there is an inherent stress with their occupation, issues with management have compounded the situation.

Recent inquiries into ambulance services provided by other states in Australia have revealed they are experiencing similar issues raised by the SJA Inquiry. Given the services in other states are generally government run, this suggests there is no guarantee a government run ambulance service in WA would reduce issues being raised.

It was also mentioned repeatedly in submissions that senior level management positions were filled without being advertised, and are based on relative non-critical indicators such as length of service to the organisation. Some senior level managers were described as lacking interpersonal skills and this is one of the main factors contributing to unrest.

The Inquiry is mindful that the paramedics who participated in the review represented a minority of paramedics employed by SJA. Whether their views represented the majority of the paramedic workforce could not be ascertained.

Recommendation 12

During the implementation phase, further work to be undertaken in the following areas:

- Alternatives to Emergency Department attendance

Strengthen the role played by *healthdirect* in the management of non-urgent Priority 3 calls.

- Helicopter service

Review the tasking process to ensure that this resource is properly utilised.

Examine in more detail the proposal of CareFlight to provide a critical care helicopter service to the Southwest Region.

- Legislation

Pursue the implementation of State legislation to control the operations of the existing ambulance service.

- Inter-Hospital Patient Transport (IHPT)

Examine the separation of IHPT tasking from the emergency tasking process.

Examine opportunities to streamline the current IHPT processes.

Examine the possibility of a computerised IHPT tasking function.

THE WAY FORWARD – AN IMPLEMENTATION PLAN

The changes required for ambulance services in this State necessitate a formal process, strong leadership and close partnerships between DoH and SJA management, paramedics communication centre staff and volunteers.

The implementation phase will need to be closely scrutinised to ensure smooth and timely improvements. To that end, it is proposed that a formal implementation team be established, led by an independent chairperson, with senior representation from DoH, SJA management, the LHMU and both the paramedic and volunteer workforces to oversee the implementation of all recommendations.

Internal resources at both DoH and SJA will be required for activities related to the implementation of the recommendations. Specific working groups involving DoH and SJA personnel may be established to address key areas such as clinical governance, communications, workforce, finance and reporting.

Recommendation 13

Establish an implementation team, led by an independent chairperson, to oversee the implementation of all recommendations and report to the Minister for Health in 6 and 12 months.

In addition to the implementation of all recommendations, the following areas of work which have been referred to in this report will be the focus of attention during the implementation phase:

1. In the communication centre:
 - Separation of Triple Zero calls from all other inbound calls;
 - Improvements to the CAD network;
 - Installation of clinical flow charts (flip charts) into the CAD software;
 - Shared communication facilities with other emergency service providers; and
 - Variation to the award structure for communications officers.
2. Statewide quality auditing of patient care records by paramedics and volunteers.
3. Tiered training opportunities and auditing of skills among paramedics and volunteers.
4. Review of selected CPGs as part of the development of the clinical governance system.

Other working groups may be established as required, as the project progresses.

Five Year Contract between SJA and DoH

The existing contract has been extended pending the outcome of this Inquiry. The contract (pending the possible introduction of legislation) should be the primary mechanism for legally re-establishing the recommendations of this report and, through regular review, ensuring compliance.

It is proposed that this process of review and negotiation would be undertaken in collaboration with the independent chairperson.

APPENDIX 1: LIST OF STAKEHOLDERS

Unions and Other Associations

Aboriginal Health Council of WA
Aboriginal Legal Service of WA
Australian Medical Association (WA)
Australian Nursing Federation (WA)
Ethnic Communities Council of WA
Health Consumers' Council WA Inc.
Law Reform Commission of WA
Law Society of WA
Liquor, Hospitality and Miscellaneous Union (WA)
Nurse Practitioners' Association WA
Silver Chain
WA Local Government Association

Health Services and GP Groups

Canning Division of General Practice Ltd
Child and Adolescent Health Service
Fremantle GP Network
Healthscope Ltd
Joondalup Health Campus
Medical Board of WA
Mount Hospital
North Metropolitan Area Health Service
Osborne GP Network Ltd
Perth Primary Care Network
Ramsay Health Care Ltd
Rockingham/Kwinana Division of General Practice
South Metropolitan Area Health Service
St John of God Health Care
St John of God Hospital, Murdoch
WA Country Health Service
WA General Practice Network

Government

Fire and Emergency Services Authority of WA
WA Police

Educational Organisations

Australasian College for Emergency Medicine
Australian College of Ambulance Professionals
Central Institute of Technology (Central TAFE)
College of Emergency Nursing Australasia Ltd
Edith Cowan University
University of Western Australia
West Coast TAFE

Insurers

HBF (Hospital Benefit Fund of WA)

St John Ambulance and Other Transport Organisations

Council of Ambulance Authorities
Royal Flying Doctor Service
St John Ambulance Australia

APPENDIX 2: ST JOHN AMBULANCE DEPOTS (METROPOLITAN)

List of Perth metropolitan depots in 2007/08:

Armadale	Midland
Central (Perth)	Morley
Cockburn	Mount (West Perth)
Fremantle	Mundaring
Gosnells	Nedlands
Jandakot	Osborne Park
Joondalup	Riverton
Kalamunda	Rockingham
Kensington	Secret Harbour
Kewdale	Serpentine
Kwinana	Two Rocks
Landsdale	Victoria Park
Melville	Warwick
Merriwa	Wundowie

Source: SJA Annual Report 2007/08, p. 8.

APPENDIX 3: USER COSTS

Fund Generation and Charges

Each state's ambulance service varies in the way service revenues are collected. The following table summarises the costs to ambulance users of obtaining levies or insurance, and the fees charged, where that information is publicly available. Most health insurers offer ambulance cover as part of a package, or as 'ambulance only' cover, except to residents of Queensland and Tasmania. The extent and level of cover varies from policy to policy.

The following table lists 2009/10 prices for Priority 1 cases involving a distance of 30 km. Four jurisdictions have set rates, with WA being the cheapest at a rate of \$738, followed by the ACT (\$750), QLD (\$888) and VIC (\$897). All other states have a base rate and a call out fee.

State	Cost of Cover	Service Cost (a)	Service Type	Not Charged
QLD	<u>State Levy</u> \$105.87 p.a. paid as levy on electricity accounts – "Community Ambulance Cover". Households with pensioners and Queensland seniors cardholders exempt.	Non resident charge \$888 for emergency and \$330 for non-emergency up to 50 km plus \$1.38 per km thereafter.	Road ambulance. Aero-medical.	All Queensland residents.
NSW	<u>State Levy or Insurance Plan Membership</u> \$58 single, \$116 family paid via levy on health insurance or State Ambulance Insurance Plan.	\$301 emergency call-out plus \$2.72 per km road or air. Non emergency call-out \$237 plus \$1.47 per km road. Maximum charge \$4,938.	Road ambulance. Aero-medical.	NSW residents with cover, pensioners and Health Care Card holders. Residents pay 51% of the actual cost of ambulance fees.
ACT	<u>State Levy or Insurance Plan Membership</u> Around \$90 single, \$180 family p.a. levy on health insurance paid by insurers or stand alone subscription \$32 single, \$64 family p.a.	\$750 plus \$10 per km outside the ACT for emergencies, and non-emergency \$196–\$537 plus \$4.10 per km fee outside ACT.	Road ambulance. Helicopter.	ACT residents with insurance, pensioners and Health Care Card holders.

State	Cost of Cover	Service Cost (a)	Service Type	Not Charged
VIC	<p><u>Ambulance Service Victoria Membership Scheme</u> \$60 single, \$120 family.</p> <p>Cover also available through private health insurance.</p>	<p><u>Metro</u>: \$897 emergency attendance & transport; \$305 non-emergency 10 km trip plus \$7.14 per extra km; <u>Air</u>: \$825 first hr by fixed wing aircraft, \$13 each additional minute; \$3,113 first hr by helicopter, \$51 each additional minute. <u>Rural</u>: \$893 plus \$11 per minute plus \$1 per km for emergencies.</p>	Road and air ambulance	Pensioner and Health Care Concession Cardholders and people with membership or health insurance cover.
TAS	No insurance or membership scheme available.	No information available.	Road and air ambulance.	All Tasmanian residents.
SA	<p><u>SA Ambulance Cover</u> (full cover) Single \$63 p.a. (pensioners \$39). Family: \$125 p.a. (pensioners \$79). <u>Ambulance Cover Extra</u> (top up for health insurance) Family\$32.75, Single \$16.35.</p>	\$700 plus \$4 for every km travelled.	Road ambulance, some aero-medical.	People with full cover.

Note: Data as at August 2009. Information derived from various sources.

Note (a): Where the service cost depends on distance, the distance calculated is the total distance from base to pick-up point to hospital back to base. Time will be that associated with all of these components of the trip. Full cost fees are recorded.

APPENDIX 4: RCA RESULTS

RCA Reference: Patient 1

THE EVENT	
Description of what happened.	<p>At 14:43 on the 26th September 2007 a family member phoned 000 for an ambulance, details of the job were documented on the computerised call card but were inadvertently deleted.</p> <p>Family members called on 3 further occasions to question the timeliness of the ambulance. Case was initially prioritised as a 4, then upgraded to 2, with a back up called on priority 1 following first crew attending the patient.</p>

- Due to understaffing of the call centre and the quantity and timing of 000 calls, led to the only 'unrestricted' communications officer at the time inadvertently deleting the initial call card for this case on CAD.
- Owing to the CAD system allowing the deletion of jobs, led to the failure to identify the missed allocation to ambulance staff until the follow-up call by family member.
- Owing to the call centre working 12 hour shifts and having no scheduled breaks aside from lunch, leads to human error related to fatigue. A number of staff described fatigue as an issue, owing to this lack of structured breaks.
- Owing to a culture in the call centre of focusing on operational issues rather than clinical, led to an initial low prioritisation of this call, which in turn led to delays in ambulance attendance.

RCA Reference: Patient 1

Contributing factors/Description of item	Description of recommendation addressing contributing factor(s)	Outcome measure
Due to understaffing of the call centre and the quantity and timing of 000 calls, led to the only unrestricted communications officer at the time inadvertently deleting the initial call card on CAD for this case	SJA review staffing levels within the call centre and ensure agreed staffing levels are maintained.	To be determined by SJA
Owing to the CAD system allowing the deletion of jobs, led to the failure to identify the missed allocation to ambulance staff until follow-up call by family member	Modify the IT system so as to ensure that a electronic job card cannot be deleted from the system.	To be determined by SJA
Owing to the call centre working 12 hour shifts and having no scheduled breaks aside from lunch, led to human error related to fatigue. A number of staff described fatigue as an issue, owing to this lack of structured breaks	Review the current shift working arrangements to ensure fatigue is considered when reviewing length and/or structure breaks during shift.	To be determined by SJA
Owing to a culture in the call centre of focusing on operational issues rather than clinical, led to an initial low prioritisation of this call, which in turn led to delays in ambulance attendance	See general recommendations.	To be determined by SJA

RCA Reference: Patient 2

THE EVENT	
Description of what happened.	<p>SJA communications centre received a 000 call at 15:49 on the 25th May 2009 from patient's wife requesting an ambulance for pancreatitis and vomiting blood. Call was prioritised as a level 4. At 16:02 patient's wife made a second call and a third at 16:17 to restate urgency and ascertain how long the ambulance would be.</p> <p>A transport crew was dispatched at 16:10 arriving at 16:30 and requested paramedic back up at 16:35. A paramedic crew was dispatched at 16:40 on a priority 2 arriving at 17:01 and CPR was commenced but unsuccessful owing to significant blood loss.</p>

- Owing to the call centre working 12 hour shifts and having no scheduled breaks aside from lunch, leads to human error related to fatigue. A number of staff described fatigue as an issue.
- Owing to a culture in the call centre of focusing on operational issues rather than clinical indications, resulting from pressure on general availability of ambulances, owing to ED pressures, geography and population growth, led to:
 - An initial low prioritisation of this call, which in turn led to delays in ambulance attendance.
 - Call staff and dispatcher allocating a transport crew on this apparent lower priority call, despite the availability of a paramedic ambulance.
 - Lower priority allocation which in turn led to the initial dispatch of a transport crew.
- Owing to the weak and wavering voice of the caller, the credibility of the clinical information given by the caller was not given due emphasis by call centre staff, leading to the lower prioritisation than clinically indicated.

RCA Reference: Patient 2

Contributing factors/Description of item	Description of recommendation addressing contributing factor(s)	Outcome measure
Owing to the call centre working 12 hour shifts and having no scheduled breaks aside from lunch, leads to human error related to fatigue. A number of staff described fatigue as an issue owing to the lack of structured breaks.	Review the current shift working arrangements to ensure fatigue is considered when reviewing length of shift and/or structure breaks during shift.	To be determined by SJA
Owing to a culture in the call centre of focusing on operational issues rather than clinical, led to an initial low prioritisation of this call, which in turn led to delays in ambulance attendance.	See general recommendations.	To be determined by SJA
A culture of focusing on operational issues, rather than clinical issues, resulting from pressure on general availability of ambulances, owing to ED pressures, geography and population growth, led to call staff and dispatcher allocating a transport crew on this apparent lower priority call, despite the availability of a paramedic ambulance.	See general recommendations.	To be determined by SJA
Inappropriate allocation of priority (haematemesis should not have been allocated a non urgent priority), owing to a focus on operational rather than clinical requirements, led to a lower priority allocation which in turn led to the initial dispatch of a transport crew.	See general recommendations.	To be determined by SJA
Owing to the weak and wavering voice of the caller, the credibility of the clinical information was not given due emphasis, leading to the lower prioritisation than clinically indicated.	Training of call centre staff ensures that primary focus is on clinical factors.	To be determined by SJA

RCA Reference: Patient 3

THE EVENT	
Description of what happened.	<p>At 07:28 on the 12th July 2007 SJA received a call from the patient; however the call taker was unable to ascertain the address details or any clinical history. The call ended when the patient was able to convey that he would get a friend to call. A job card was not created.</p> <p>Following the call by a friend and further contact with the patient, an ambulance was dispatched on a priority 4 at 08:10 arriving at 08:36. The crew were unable to gain access to the patient's home and left the scene following an attempt to contact the patient by phone.</p> <p>At 09:41 a friend phoned after gaining access to the house, noting the patient was unresponsive, was advised to commence CPR and an ambulance was dispatched priority 1, arriving at 09:55. The patient was not transported, as on assessment there were nil signs of life.</p>

- Inappropriate allocation of priority, owing to original call by patient not being associated with a second call by a third party caller, led to a lower priority allocation which in turn led to the initial dispatch of a transport crew.
- A general culture of focusing on operational rather than clinical requirements within the call centre, led to a failure to make the connection of this call to other calls which in turn led to a lack of recognition of clinical urgency.
- Owing to the time of the call occurring half an hour before shift change for paramedics, in a culture of holding back apparent less urgent jobs for the day shift, led to delays in allocating the job to the depot and delays in the ambulance attendance on site.
- Owing to general pressure of calls within the call centre due to low staffing and unpredictability of calls, compounded by an attempt to support an obviously breathless patient having difficulty speaking, led to a call centre staff member cutting short the patient when he attempted to detail information on gaining access to his dwelling. This in turn led to the paramedics' inability to discern access to the dwelling on the initial attendance, as the electric garage door had no handle and appeared locked.

RCA Reference: Patient 3

Contributing factors/Description of item	Description of recommendation addressing contributing factor(s)	Outcome measure
Inappropriate allocation of priority, owing to original call by patient not being associated to a second call by a third party caller, led to a lower priority allocation which in turn led to the initial dispatch of a transport crew	An electronic job card be commenced on all genuine calls.	To be determined by SJA
A general culture of focusing on operational rather than clinical requirements within the call centre, led to failure to make the connection of this call to other calls which in turn led to lack of recognition of urgency	See general recommendations.	To be determined by SJA
Owing to the time of the call occurring half an hour before shift change for paramedics, in a culture of holding back apparent less urgent jobs for the day shift, led to delays in allocating the job to the depot and delays in the ambulance attendance on site	Training of call centre staff ensures that primary focus is on clinical factors.	To be determined by SJA
Owing to general pressure of calls within the call centre related to low staffing and unpredictability of calls, compounded by an attempt to support an obviously breathless patient having difficulty speaking, led to a call centre staff member cutting short the patient when he attempted to detail access to dwelling. This in turn led to paramedics inability to discern access to the dwelling as electric garage door had no handle and appeared locked	Training of call centre staff ensures that primary focus is on clinical factors.	To be determined by SJA

APPENDIX 5: STAFF QUALIFICATIONS

All states require paramedics to have a tertiary qualification and call centre staff to have some type of formal call operator training. Details of the specific state/territory requirements are detailed below.

State/Territory	Bachelor Health Science (Paramedic)	Diploma of Paramedical Studies (Ambulance)	Certificate IV in Basic Emergency Care (Ambulance)	Certificate III in Non-Emergency Client Transport	Certificate II in Emergency Medical Care or Pre-Hospital Care	Bachelor of Nursing/ Health Science (Paramedic)	Certificate III in Basic Health Care	Graduate Diploma in Intensive Care Paramedic Practice	Graduate Certificate in Ambulance Management	Bachelor of Health Science (Emergency Health Services)	Other Accredited Courses
QLD	D	X	X	X	X	D		D	D	D	
NSW	E	X			X						
ACT	E	E		X							
VIC	E				E		E				
TAS		X and E		X							X
SA	X	X	X								
NT		X									X
WA	D	X (Adv Dip)		X			X				X

Note: X – Provided internally. D – Directly supported by the relevant ambulance service. E – Provided fully externally.

APPENDIX 6: SENTINEL EVENT PROCESS

The SJA procedure for managing SAEs is as follows:

- Notification received (SAEs can be reported verbally);
- All notifications are logged into complaints system; and
- Written acknowledgement to complainant.

The notification is then forwarded to the Clinical Governance Manager for review, with the following process:

- Allocated to nominated Clinical Team Leader for preliminary investigation;
- Complainant contacted / interviewed within 48 hours and SAE incident form completed;
- Clinical Governance Manager to determine if complaint to be actioned through routine clinical investigation procedures or initiate an RCA. If an RCA initiated then an RCA review group is formed;
- Findings to Clinical Governance Manager;
- Final report/response drafted including recommendations for prevention or mitigation of future occurrences;
- To Clinical Governance Manager for final review;
- To CEO/Ambulance Service Director for review and sign off;
- Complainant notified of outcome including any recommendations/corrective actions taken;
- Recommendations forwarded to relevant department for action; and
- Review of progress of recommendations at 3 months.

APPENDIX 7: ASSESSMENT OF CLINICAL GOVERNANCE STANDARDS

Standard	Provision at SJA
1. Accountability:	
Development and implementation of appropriate Clinical Governance (CG) policy and strategy	CG strategy is a major focus in 2009, as evidenced by: New CG framework (September 2009 draft); Objectives of the Ambulance Service Director; Job Description of the Manager Clinical Governance; Appointment of Manager Clinical Governance; and Engagement of an academic expert to assist with the review and development of CG systems.
Appropriate responsibility for CG in job descriptions and CG organisational chart	In the job description of: Manager for Clinical Governance; Medical Director; and Clinical Team Leaders.
Documented minutes and Terms of Reference for committee(s) responsible for CG	The Medical Policy Group is in place. Terms of reference are established. Terms of reference provided for Clinical Reference Group. Further committees are proposed.
Documented correspondence from senior managers with responsibility for CG	In development.
Audits showing compliance with CG policy and strategy	Sentinel adverse event 'global' audits undertaken.
2. Policy & strategy:	
Comprises consumer value, clinical performance and evaluation, clinical risk management, professional development and management	SJA are in the early stages of developing a document which comprehensively describes the CG Policy, with strategies and plans for implementation. For a CG system to be successfully implemented, it will need to be tailored to the particular circumstances and environment within SJA.
Appropriate strategies and policies for each of above	The development of CG is programmed in the SJA's Corporate Plan.
Evidence of CG linked to organisation's strategic/corporate plan	To date an overview document has been written and used to introduce the concept of CG and the key features. This will serve as the basis from which the CG policy document will be developed.
Evidence of CG policies developed and implemented	The CG team is working on a formal process for Clinical Incident Reporting, which will dovetail with a complaints process. A draft document describing the processes for Clinical Audit, Clinical Practice Guidelines, Clinical Complaints and Sentinel Adverse Events has been written.
Evidence of policy/strategy disseminated to staff and stakeholders	A circular announcing clinical appointments has been provided to staff.

Standard	Provision at SJA
3. Organisational structure:	
Appropriate committees established to oversee CG activities	The establishment of the Medical Policy Committee and Clinical Reference Group in May 2009.
Organisational and business unit CG policies and strategies recognising role of CG committee	The Clinical Information Group meets monthly.
Documented Terms of reference and minutes for committee(s) responsible for CG	Medical Policy Committee Terms of Reference established. Minutes available. No Terms of Reference for other committees.
Annual CG reports to organisation's executive team and DoH	Contractual requirements require SJA to report to DoH on a range of activities. This could be strengthened to align more closely with the CG standard.
4. Appropriate resource allocation:	
Documented evidence of how CG system and framework are resourced	The financial budget for CG is available. Staff resourcing information provided.
Documented evidence of how CG policy and activities are prioritised	In development.
5. Communication:	
Evidence of the communication of the organisation's CG policy and strategy to all staff and community	Communication about appointment of Manager, Clinical Governance provided to staff. Evidence of documentation provided to LHMU.
Annual reports, safety and quality policy documents	Monthly Clinical Information Systems meeting Quality policies and audits available.
Evidence of CG policy and strategy being included in orientation and professional development.	In development.
6. Professional development & training:	
Evidence of staff development in relation to CG	Recent appointments of senior staff to manage this area.
Attendance at workshop/seminars	SJA provides 2 days continuing education for all ambulance and operations centre operatives. Attendance varies throughout SJA.
Results of training needs analysis	Unknown if staff are consulted.
Training course evaluation reports	Training course evaluations are completed for all courses and follow the relevant Registered Training Organisation or University standards.
Documented training and professional development programs	Continuing education program is in place.

Standard	Provision at SJA
7. Documenting effectiveness:	
Development and implementation of performance indicators for CG	High level reporting for Executive and State Council is being further developed. A sample of current reporting in the organisation's management information system is available. Plans for further indicators under development are also available.
Evidence of use of CG performance indicators across organisation levels	CIS Audits are available.
Monitoring and reporting of performance indicators and measuring improvements in safety and quality over time	Cardiac Arrest Outcomes report is available.
Annual report	The organisation produces a comprehensive annual report that is available for download at www.ambulance.net.au .
8. Independent assurance:	
Internal audit statement to chief executive	Quality assurance audits are available.
Reports of external review bodies	No recent external review specific to CG. Relevant data provided to DoH as required to meet the terms of contractual obligations.
Reports to external bodies	Reports on comparative data on cardiac arrest outcomes to the CAA for the purposes of comparison and reporting to the Productivity Commission's Report on Government Services.

Delivering a **Healthy WA**

