



Western Australian Auditor General's Report

Delivering Western Australia's Ambulance Services

Report 5 – June 2013





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Front cover photos
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WESTERN AUSTRALIAN AUDITOR GENERAL'S REPORT

**Delivering Western Australia's
Ambulance Services**

Report 5
June 2013



**THE PRESIDENT
LEGISLATIVE COUNCIL**

**THE SPEAKER
LEGISLATIVE ASSEMBLY**

DELIVERING WESTERN AUSTRALIA'S AMBULANCE SERVICES

This report has been prepared for submission to Parliament under the provisions of section 25 of the *Auditor General Act 2006*.

Performance audits are an integral part of the overall audit program. They seek to provide Parliament with assessments of the effectiveness and efficiency of public sector programs and activities, and identify opportunities for improved performance.

The information provided through this approach will, I am sure, assist Parliament in better evaluating agency performance and enhance parliamentary decision-making to the benefit of all Western Australians.

A handwritten signature in black ink, appearing to read 'C. Murphy'.

COLIN MURPHY
AUDITOR GENERAL
12 June 2013

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Auditor General's Overview



Having a reliable and responsive ambulance service provides reassurance to the community that in an emergency situation a first class service is available. This essential service has been delivered across most of Western Australia by St John Ambulance (WA) since 1922. Delivering the service in often very difficult circumstances relies on the skills and dedication of paramedics, transport officers and, in country areas, volunteers.

In response to questions over the reliability and responsiveness of WA's ambulance services in 2009, the Government launched an Inquiry which made a number of recommendations for change, to be supported by increased government funding. I am pleased to report that the implementation of those recommendations, and the increased funding, has improved ambulance services overall in WA. The service has greater capacity, its responsiveness has improved, clinical monitoring is more extensive and there is increased support for volunteers.

During the period since the Inquiry, ambulance ramping has increased significantly, and appears set to reach its highest levels to date this winter. While its causes lie largely outside the control of the ambulance service, ramping represents a major threat to sustaining the improvements achieved so far, particularly in responsiveness.

There are areas where change would help deliver further improvements. Specifically, the contractual framework and funding model now need to move beyond being a vehicle for implementing the Inquiry recommendations and focus more on service performance and quality. This would better enable WA Health to demonstrate the quality, reliability, responsiveness and value for money of the ambulance service to Parliament and the community.

Executive Summary

Background

St John Ambulance Australia (Western Australia) Inc. (SJA) is contracted by WA Health to provide ambulance services throughout the state. SJA is a non-government incorporated association, linked to the international Order of St John. It has a long history in Western Australia (WA) as the primary provider of ambulance services, operating since 1922. In this regard, WA and the Northern Territory are unlike other Australian jurisdictions where ambulance services are provided by government agencies and regulated by legislation.



SJA is the primary provider of ambulance services in WA.

Last year SJA's call centre responded to around 163 000 triple zero calls and 112 000 non-urgent ambulance bookings. It dispatched 240 000 ambulances. Demand for ambulances had increased by 24 per cent since 2008-09. Ramping has also put pressure on SJA's capacity to respond to calls, with ramping at its highest level during July 2012 when ambulances had to wait for over 2 100 hours at hospitals.

Ramping occurs when an Emergency Department (ED) is unable to immediately take over the care of a patient brought in by SJA so that the patient has to stay on the ambulance stretcher and remain in the care of ambulance paramedics. Once the hospital takes over the care of the patient and the patient is removed from the ambulance stretcher the ambulance can return to active service. Only lower acuity patients may be ramped. The number of patients seeking ED services can impact on levels of ramping as it can affect the capacity of the ED to take over care of patients brought in by ambulance. Demand for ED services has increased over recent years.

SJA uses a structured computer based call taking system called 'ProQA'. Using this system, call centre staff lead callers through a structured set of questions and enter their responses into ProQA which then provides a code assigning a priority for the dispatch of the ambulance. Priorities range from Priority 1 (potentially life threatening emergency) to Priority 4 (non-urgent booked call), and determine how quickly ambulances need to arrive at the scene. Ambulances either retrieve injured or ill people from community settings and take them to hospital (primary transport), or transport patients between hospitals (inter-hospital patient transport or secondary transport).

Response times are the main performance measure for ambulance services throughout Australia and internationally. SJA's target under its current contract (Contract) with WA Health is to respond to 90 per cent of Priority 1 calls within 15 minutes. SJA's response time starts from when a call is entered into the dispatch system and ends when the ambulance arrives at the scene. Response times can be affected by a range of factors, most significantly the availability of crews and the location of ambulance centres.

SJA has 30 metropolitan depots and 115 country sub-centres. Metropolitan depots are fully staffed by paid paramedic and transport officer crews. A mix of paramedics and volunteer crews staff 13 larger country sub-centres (career sub-centres). The remaining 102 sub-centres have entirely volunteer ambulance crews (volunteer sub-centres). Last year metropolitan depots undertook three-quarters of SJA's ambulance activities and country sub-centres one-quarter. Just under half of country ambulance activities were undertaken by volunteer sub-centres.

Delivering WA's ambulance services to country areas is a challenge because the population in those areas is widely spread across a very large area. Volunteer services are therefore critical to providing country ambulance coverage. To establish a local volunteer ambulance service, communities have to approach SJA and demonstrate need and commitment. This model has proved resilient in WA, no volunteer sub-centres once established have ceased operation.

The WA Country Health Service (WACHS) operates its own ambulance service from hospitals in Derby, Fitzroy Crossing and Halls Creek as there has never been an approach from these communities to establish a SJA sub-centre. WACHS provides more than 50 per cent of the ambulance activities in the Kimberley. At times, Aboriginal Medical Service nurses, police, emergency volunteers and local community members may also provide assistance.

Most people in WA pay if they use an ambulance, but they do not pay the full cost. In the metropolitan area WA Health, rather than the user, pays for 'standby capacity', which is the cost of having enough ambulance crews on standby ready to respond to calls and meet response time targets. This was calculated in 2009 as ambulance crews standing by for 52.5 per cent of the time. In country areas, fees do not recover the labour costs of ambulance crews because they are either SJA paramedics paid for by WA Health or volunteers.

SJA's ambulance service is the least expensive in Australia by a substantial amount using a cost per person indicator, and managing an efficient and cost effective service is one of SJA's key objectives. Last year it was \$72 per person compared to a national average of \$110. There are a number of factors that influence this, including the reliance on volunteers in country areas and relatively low ambulance use in WA, with 36 per cent of ED patients arriving by ambulance compared to 47 per cent nationally.

The 2009 St John Ambulance Inquiry

In 2009 the Government established an inquiry (the Inquiry) into SJA following an ABC 'Four Corners' television program. The Inquiry Report said that the program 'revealed four patients had died after inadequate responses by ambulance services'.

The Inquiry strongly endorsed many aspects of SJA and its arrangements with WA Health but made 13 key recommendations to improve ambulance services. Ten of these were stand alone and the rest contained 19 sub-recommendations (Appendix 1). One-third of all recommendations were directed towards WA Health and the Government.

A key recommendation was that the longstanding Government policy of an external provider of emergency ambulance services should continue. Comparing the cost per person with other states, the Inquiry found SJA was effective overall and cost effective for WA. Other recommendations included investing more in the service and establishing a team to oversee the implementation of all Inquiry recommendations and report within 12 months (by the end of 2010).

Two-thirds of all recommendations were directed towards SJA. These included making changes to SJA's organisation and operations, increasing staff numbers and agreeing to further monitoring by WA Health. The Inquiry also found that changes in demand and population growth had stretched the largely volunteer model in country areas to its capacity. It recommended further assessment of ambulance needs in country areas.

The Government accepted all the Inquiry recommendations including the need for additional investment in ambulance services. This resulted in funding to SJA increasing from \$42 million in 2008-09 to an expected \$100 million this year.

Audit Objective

Our audit objective was to conclude on whether ambulance services have improved in response to the 2009 Inquiry. We focused on whether SJA and WA Health have implemented the 2009 Inquiry recommendations and whether there has been effective contract management by WA Health. A table of each Inquiry recommendation and its status is at Appendix 1.

Audit Conclusion

SJA's ambulance services have improved overall since the 2009 Inquiry, supported by increased funding from WA Health, and despite increased demand across the state, and ramping in the metropolitan area. SJA has increased staff numbers and support for volunteers in country areas, changed its call centre technologies, improved clinical monitoring and established an accessible complaints handling system. WA Health has effectively monitored SJA's implementation of Inquiry recommendations and done much to progress the regulation of ambulance services and paramedics.

Efforts to address ramping have so far been unsuccessful. Despite some improvement in 2011, ramping reached its highest levels in July 2012. Results to date for 2012-13 show that ramping hours have more than doubled on the year before. Continuing increases in ramping could put at risk the improvements in ambulance services achieved over recent years.

Some key issues arising out of WA Health's and SJA's response to the Inquiry still need to be addressed. WA Health lacks a clear means of assessing whether SJA stations paramedics where they are most needed. It also does not centrally control and monitor inter-hospital patient transport (IHPT). SJA's clinical oversight of country volunteer ambulance services needs to be improved.

WA Health's contract management has been effective but inadequacies in the Contract between WA Health and SJA need to be addressed. The Contract was designed to fund an increase in SJA's capacity but it lacks mechanisms for WA Health to monitor the quality of the service provided, such as standards of patient care, staff training or conduct, and equipment. It includes no incentives for SJA to meet agreed outcomes and does not assist WA Health to demonstrate whether the State is receiving value for money.

Key Findings

Key findings on WA Health's response to the Inquiry

WA Health increased its funding of SJA, from \$42 million in 2008-09 to an expected \$100 million this year and has monitored SJA's expenditure to ensure that the funding has been used to implement the Inquiry's recommendations.

WA Health has progressed the regulation of ambulance services and paramedics but progression with State legislation was not supported by the Department of Treasury and the registration of paramedics depends on the implementation of a national registration scheme. The Inquiry considered legislation and registration to be important to better control the operations of emergency ambulance services and the conduct of paramedics.

It is not clear that SJA is stationing WA Health funded paramedics in the country sub-centres where they are most needed. SJA has activity criteria for allocating paramedics to country locations. Since these were introduced in the last contract (2010) they have not been consistently followed. Compared to the criteria, 10 of the 13 career sub-centres are over-resourced and three (Broome, Geraldton and Albany) are under-resourced.

WA Health has been slow to make changes to IHPT arrangements and does not formally contract for these services so there are no specified standards for patient care. WA Health also does not centrally control and monitor the costs, estimated to be over \$12 million in 2011-12. SJA informed us that since the audit a fee arrangement has been agreed for these services.

Key findings on SJA's response to the Inquiry

People who need an emergency ambulance are now more likely to get one. SJA introduced a structured call taking system, as used in other states. The system is risk averse and the proportion of calls prioritised as emergencies has increased by 31 per cent. Another consequence has been an increase in over-prioritisation of calls as emergencies – from 46 000 cases under the old system to 69 000 now. However, SJA does review and adjust the system for allocating priorities, based on clinical evidence.

SJA has improved its metropolitan Priority 1 response times. It is on track to meet its 2012-13 target and came very close to meeting its contractual target in 2011-12. It did not meet its contractual target in the previous year. The improvement has occurred despite a 48 per cent increase in demand for ambulances over the last three years and higher levels of ramping. Increased staff numbers and changes to staff rostering have been key factors in improving response times. The changed rostering means that SJA is more efficient and has helped SJA improve response times with a standby rate of 42 per cent, rather than the 52.5 per cent funded by WA Health.

SJA and WA Health's efforts to address ramping have so far been unsuccessful. Despite some improvement in 2011, ramping times increased by 35 per cent between 2009-10 and 2011-12, from 4 936 to 6 641 hours in the metropolitan area. In the 10 months to 30 April 2013 ramping totalled 12 446 hours – a 144 per cent increase on the same period in the previous year. In early May SJA, in partnership with WA Health and Hollywood Private Hospital, started a temporary trial to help reduce the impact of ramping during the 2013 winter months.

Response times for country career sub-centres have worsened. There has been a decline in the emergency calls responded to within 15 minutes from 83.4 per cent in 2009-10 to 76 per cent in year to date 2012-13 (30 April). Although SJA increased the number of paramedics it was insufficient to offset the growth in demand as well as the increase in emergency calls resulting from the use of the new call taking system. Response times for volunteer sub-centres, however, have improved significantly between 2009-10 and year to date 2012-13 despite an increase in demand and Priority 1 calls.

SJA's regionalisation initiative has significantly improved the model for country services. It increased numbers of transport officers, ambulance and community paramedics by 54 per cent, and located corporate staff in country regions.

SJA has done much to improve its clinical governance framework in a short time, but improvements are not yet fully embedded. Greater clinical governance of country volunteer services is needed, specifically extending clinical audits into these services.

SJA now reports serious clinical incidents resulting in patient death or risk of death and its investigations of these to WA Health. Recently WA Health's policy changed to require reporting of more kinds of clinical incidents by contracted health services. This is not reflected in SJA's Contract but should be included in any future contracts.

SJA's complaints management system has improved significantly. There is now a clearly identified process for making complaints on the SJA website. In spite of this, we found that some WA Health ED staff are not clear about how to raise concerns with SJA.

Key findings on WA Health's contract for ambulance services

WA Health's contract management has been effective but the Contract has limitations and does not assist WA Health to demonstrate whether the State is receiving value for money. The Contract is largely input rather than output based and does not include incentives or penalties. It lacks mechanisms for WA Health to monitor the quality of the service provided, such as standards of patient care, staff training or conduct, and equipment.

SJA reports its performance on national indicators in the Report on Government Services (ROGS). These include: cost per capita; cost to government per capita; patient numbers;

and patient satisfaction. ROGS data shows that SJA's performance is on par or better than ambulance services in other jurisdictions. The majority of these indicators are not reported to WA Health as part of the Contract.

The current Contract expires in 2013 but is likely to be extended for another year. There is a gap in senior level engagement between WA Health and SJA in addressing key issues such as a new funding model. A committee set up to enable WA Health and SJA to discuss and resolve strategic and complex issues such as a new contract has not met for over a year.

Recommendations

To improve effectiveness and accountability when contracting for ambulance services WA Health should:

- develop and agree with SJA a new funding model for emergency ambulance services focusing on standards, performance and allocation of risk
- collate and centrally monitor financial data including the cost to government of IHPT
- include in contracts minimum standards for emergency and secondary ambulance services and effective mechanisms to monitor these
- require service providers to report more comprehensive performance data using additional cost and clinical indicators
- re-engage with SJA at a senior level to address strategic and complex issues including long term solutions to ramping
- develop criteria with SJA for the allocation of paramedics across the state
- consider publishing information on SJA's complaints processes to assist WA Health staff.

To improve delivery of ambulance services SJA should:

- carry out targeted clinical audits in volunteer country sub-centres until longer term solutions are in place
- develop quantitative performance targets for community paramedics and report these to WA Health
- explore opportunities for extending the community paramedic model to other areas of identified need
- build on its regionalisation model and improve engagement with local services in the Kimberley and Pilbara regions
- ensure the positive gains in clinical governance achieved since the Inquiry become embedded throughout the whole organisation.

Agency Response

St John Ambulance Australia (Western Australia)

St John Ambulance Australia (WA) Inc. is committed to continually improving outcomes for patients requiring pre-hospital care in a cost effective manner. During the past 3 years St John Ambulance has implemented or is in the process of implementing all of the recommendations contained in the 2009 Joyce Review. As planned, the State's additional funding has resulted in more front line staff and an organisation that is better equipped to respond to the Western Australian community.

St John Ambulance provides the emergency ambulance service for Western Australia under contract with the most recent Productivity Commission Report on Government Services once again confirming that the service is delivered at the:

- lowest cost per capita in Australia
- lowest cost to Government per capita in Australia
- second lowest cost per patient in Australia
- lowest cost to Government per patient in Australia.

In terms of the quality of service, while it is true that the ambulance sector, both nationally and internationally is only in the early stages of developing clinical indicators, there are a number of measures that collectively provide a significant measure of the quality that is being delivered by St John Ambulance:

- patient overall satisfaction results at 98 per cent in line with national average
- low complaints to case ratio
- development of clinical practices through an industry based Medical Policy Committee which includes the State's Chief Medical Officer
- access to and analysis of clinical incidents and sentinel adverse events
- responsiveness – St John Ambulance has met the target response times in 15 of the last 16 months and in the year to 30 April 2013 is outperforming all response targets. The only missed target occurred during July 2012 due to the impact of unprecedented levels of ramping.

Based on all of the cost and quality measures that are available, St John Ambulance is delivering the highest return on investment in the delivery of pre-hospital care on behalf of the State to the communities across Western Australia.

Access blocks at the major tertiary hospitals continue to worsen with ramping currently at levels twice that compared with a year ago. Ramped hospitals are unable to care for lower acuity patients that arrive by ambulance with these patients remaining under the care of the paramedics until the access blocks are cleared, sometimes many hours later. Ramped ambulance crews are unable to respond to the next call for assistance from the Western Australian community. St John Ambulance and WA Health continue to collaboratively explore solutions to the problem with the new Fiona Stanley Hospital opening in 2014 expected to add the much needed patient surge capacity to the health system. St John is currently undertaking an innovative trial with Hollywood Hospital to provide an Ambulance Surge Capacity Unit to provide low acuity patients with alternative care pathways and help reduce the impact of ramping during the winter months ahead.

St John Ambulance welcomes any opportunity to examine how its operations and processes might be improved to ensure the pre-hospital care it provides for patients is above world-class. In this respect we thank the Auditor General for his report.

WA Health

WA Health welcomes the recommendations from the Auditor General regarding the contract with St John Ambulance Australia – Western Australia (SJA) for ambulance services in Western Australia. The State Government's considerable financial contribution to the service since 2009 has resulted in a much more efficient and effective emergency road ambulance transport service.

WA Health and SJA have worked in partnership since the 2009 Inquiry to improve emergency ambulance road services in the state and will continue to improve the service by implementing the Auditor General's recommendations in the new contract with SJA due to commence 1 July 2014.

WA Health have already commenced working towards some of these recommendations, including the redevelopment of the strategic direction, membership and Terms of Reference for the WA Ambulance Standing Committee; commencement of discussions with stakeholders regarding non-emergency/secondary ambulance transport with the aim to start contract planning for Inter Hospital Patient Transport services in May 2013; and the commencement of contract planning for a new long term contract with SJA for emergency road ambulance services in which discussion have included an alternative funding model with the possibility of including incentives for SJA exceeding the contract targets.

In addition to the Summary of Findings recommendations SJA has also had discussions with WA Health, and other stakeholders, regarding new alternative pre-hospital care pathways to reduce emergency department presentations, which should have a positive impact on ramping statistics.

WA Health is committed to continue to work with SJA and other service providers to better the health system for the Western Australian community.

Background

Ambulance services in WA are contracted to St John Ambulance

St John Ambulance Australia (WA) Inc. (SJA) is contracted by WA Health to provide ambulance services throughout the state. SJA is a non-government incorporated association, linked to the international Order of St John and its motto is 'For the service of humanity'. It has a long history in WA as the primary provider of ambulance services, operating since 1922. WA and the Northern Territory are the only Australian jurisdictions where ambulance services are delivered by a non-government provider. Other Australian ambulance services are provided by government and regulated by legislation (see Table 1).

Australian Ambulance Services	
ACT Ambulance Service (ACTAS)	ACTAS is one of four operational services of the ACT Emergency Services Agency, a portfolio of the ACT Directorate of Justice and Community Safety. It operates under the <i>Emergencies Act 2004</i> (ACT).
Ambulance Service of NSW (ASNSW)	ASNSW, a division of the Department of Health, operates under the <i>Health Services Act 1997</i> (NSW).
St John Ambulance Australia (NT) Inc. (SJANT)	SJANT is a not-for-profit organisation that operates under contract to the NT Government.
Queensland Ambulance Service (QAS)	QAS operates under the authority of the <i>Ambulance Service Act 1991</i> (QLD). QAS is a division of the Department of Community Safety which, in addition to ambulance services, is responsible for the provision of fire, search, rescue counter disaster and hazardous materials services.
SA Ambulance Service (SAAS)	SAAS became part of SA Health in 2008 and operates in accordance with the <i>Health Care Act 2008</i> (SA).
Tasmania Ambulance Service (TASAS)	TASAS was established under the <i>Ambulance Service Act 1982</i> (TAS). It is part of the Department of Health and Human Services, Acute Health Services Division.
Ambulance Victoria (AV)	AV has been operational since 2008 when the Minister for Health merged the Metropolitan Ambulance Service, the Rural Ambulance Service and the Alexandra and District Ambulance Service to form a single state-wide ambulance service. It operates under the <i>Ambulance Services Act 1986</i> (VIC).
St John Ambulance Australia (WA) Inc. (SJA)	SJA (WA) is a not-for-profit organisation that operates under contract to the WA Department of Health to provide ambulance services throughout WA.

Table 1: Ambulance services by state and territory

Last year SJA's call centre responded to around 163 000 triple zero calls, in addition to 112 000 non-urgent ambulance bookings, and dispatched 240 000 ambulances. Demand for ambulances had increased by 24 per cent since 2008-09. Ramping has also put pressure on SJA's capacity to respond to calls with ramping reaching its highest levels to date in July 2012.

SJA delivers two kinds of ambulance service, 'primary' and 'secondary'. Users generally pay (Figure 1), but fees are partly subsidised by WA Health's funding of SJA:

- primary transport is when injured or ill people are retrieved from community settings and taken to hospital. This is generally paid for by the individual user, although they may be able to access insurance or pensioner subsidies and discounts. This is like other jurisdictions except Queensland and Tasmania, which do not charge users fees, and New South Wales which charges 51 per cent of the cost
- secondary transport or IHPT is when ambulances are used to transport patients between hospitals. Public hospitals sending patients to another hospital will pay the fees. SJA has advised that since the audit a fee arrangement has been agreed between WA Health and SJA for these services. A small number of such transports are undertaken by other ambulance service providers.

User fees do not cover the cost of the standby capacity needed to have enough crews available to respond to new calls:

- WA Health's funding for SJA in the metropolitan area is based on paying for a level of standby capacity estimated as needed to meet response time targets. Currently this is calculated as 52.5 per cent of the cost of metropolitan ambulance crews. The level of standby capacity is drawn from a 1996 government report and the Inquiry implementation report. The lower the standby capacity, the higher the risk that an ambulance crew will not be available or will need to travel further to respond
- in country areas, fees do not recover the labour costs of ambulance crews because they are either SJA paramedics paid for by WA Health or volunteers.

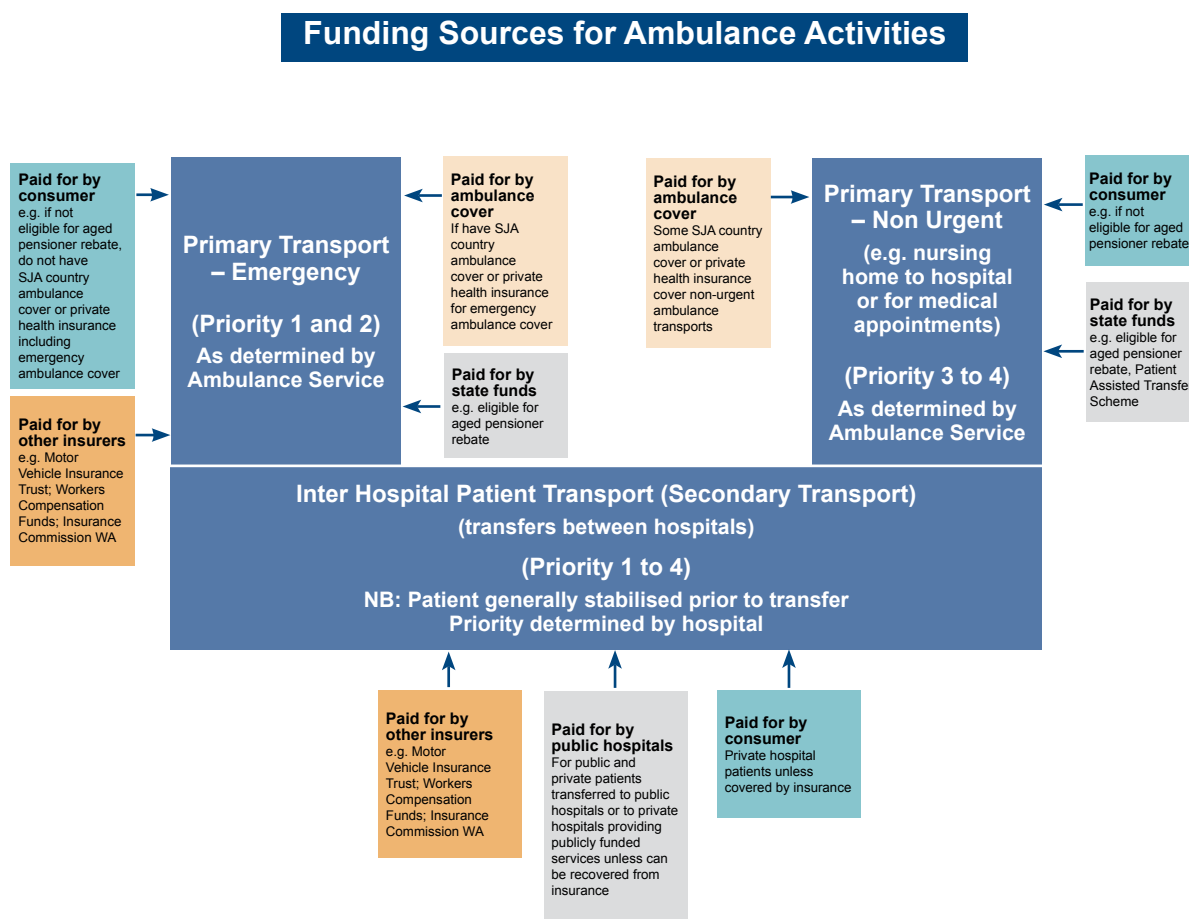


Figure 1: SJA charges fees for the use of ambulances

Consumers, the State and insurance pay ambulance fees but these are partly subsidised by WA Health's funding of SJA.

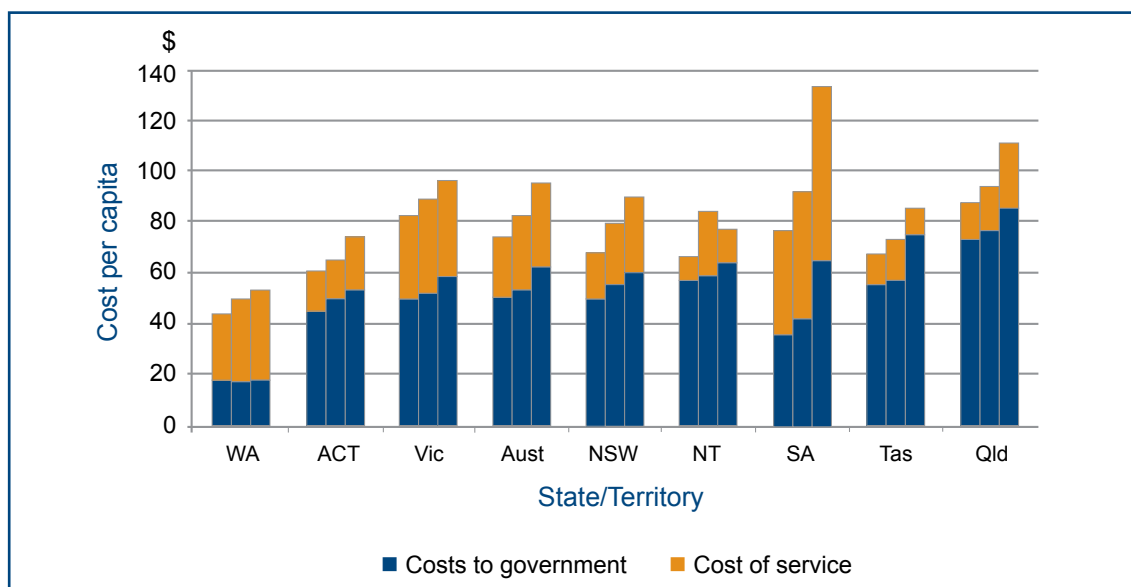
Government established an Inquiry into SJA's ambulance services in 2009 following a 'Four Corners' program

In 2009 the Government established an inquiry (the Inquiry) into SJA following a 'Four Corners' program, 'Out of Time'. The Inquiry report said that the program '...revealed four patients had died after inadequate responses by ambulance services'.

When the Inquiry Chairman delivered the Inquiry report to the Minister of Health, he described SJA as having '...an outstanding record in service to humanity and [forming] part of the culture of Western Australia [with] a very proud tradition boosted by the contribution of so many volunteers particularly in country areas and over such a long time'. This tradition is part of the 'brand' which government purchases from SJA.

The Inquiry made 13 recommendations, 10 were stand-alone and three consisted of 19 parts, giving a total of 29 recommendations. Nine recommendations were directed towards WA Health and the Government while the other 20 were directed towards SJA (Appendix 1).

The Inquiry found that the service model used in WA, with a non-government provider of emergency ambulance services, was effective overall and cost effective for WA. A key recommendation was that the existing model should continue. Cost effectiveness was assessed on both the per person cost of the service to government and from all funding sources. In both instances SJA's costs were markedly lower than elsewhere in Australia (Figure 2).



Source: Inquiry report (2009), p. 18.

Figure 2: Comparative cost of ambulance services as reported by the Inquiry

The Inquiry also recommended making changes to SJA's organisation and operations, increasing staff numbers and agreeing to further monitoring by WA Health. It found that changes in demand and population growth had stretched the largely volunteer model in the country to its capacity, and recommended that ambulance needs in country areas be further assessed.

Government accepted all the Inquiry recommendations and budgeted approximately \$150 million in increased funding to WA Health for ambulance services over the five years from 2009-10 to 2013-14. In the first four years, SJA will receive an additional \$100 million funding from WA Health.

Audit focus and scope

The audit objective was to examine whether ambulance services have improved in response to the 2009 Inquiry into SJA, focusing on whether SJA and WA Health have implemented the 2009 Inquiry recommendations and whether there has been effective contract management by WA Health.

SJA is a non-government organisation and this performance audit was undertaken under 'follow-the-dollar' powers provided to the Auditor General by the *Auditor General Act 2006*.

In conducting the audit we held meetings with and interviewed:

- WA Health staff from State Wide Contracting; Quality Assurance Clinical Governance; Performance Activity and Quality; WACHS; Internal Audit and Corporate Governance
- WA Health staff from the Emergency Departments of six hospitals (Sir Charles Gairdner, Swan District, King Edward Memorial, Fremantle, Rockingham and Armadale)
- WACHS staff in Newman, Nullagine, Marble Bar, Port Hedland and Perth
- SJA staff including its Executive Committee, and the Directors of Clinical Services, Information Technology and Ambulance Services
- SJA staff at the State Operations Centre in Belmont and at the Osborne Park depot
- SJA staff and volunteers at the Bunbury, Port Hedland and Newman sub-centres
- staff from complaints agencies, the Health Consumers' Council (HCC) and the Health and Disability Services Complaints Office (HaDSCO).

Two team members also attended SJA's Volunteers Conference in August 2012.

We analysed:

- documentation from SJA on the implementation of the recommendations from the Inquiry
- contracts between WA Health and SJA and related documentation
- funds provided to SJA in response to the Inquiry, the source of these funds and allocation of resources
- SJA complaints data provided by SJA, HaDSCO and HCC
- comparative ambulance cost and usage data from ROGS
- SJA's financial and performance data (although not a government agency SJA's financial and key performance data are externally audited) including expenditure against agreed budgets, and the performance data provided to WA Health.

The following areas were excluded from the audit:

- SJA's non-ambulance service activities, including its recruitment and training of First Aid volunteers who also provide event support, industrial paramedic services and the sale of First Aid kits
- the policy of providing emergency ambulance services through an external provider
- determining the reasons for the low usage of ambulance services associated with the current model in WA
- WACHS ambulance services in the Kimberley
- the work of HaDSCO in responding to health service complaints
- WA Health contracted air ambulance services with the Royal Flying Doctor Service.

The audit was conducted in accordance with Australian Auditing and Assurance Standards.

Ambulance services have improved since the Inquiry but with different results for metropolitan and country areas

WA Health and SJA have done much to progress Inquiry recommendations

Three of the Inquiry recommendations that were directed towards WA Health and the Government have been fully or substantially implemented, including the key recommendation to invest in SJA. The other six WA Health recommendations are in progress. SJA has fully or substantially implemented 12 of its 20 recommendations. Eight others are in progress.

A summary of the status of the implementation of each specific Inquiry recommendation is at Appendix 1. This section of the report provides the key issues arising out of SJA's and WA Health's response to the Inquiry.

People who need an emergency ambulance are more likely to get one and SJA's response times have improved despite increased demand and ramping

People who need an emergency ambulance are now more likely to get one and response times have improved. A new call system, more staff and changes to rostering have enabled SJA to cope with increases in demand, the proportion of calls prioritised as emergencies and hospital ramping. SJA is more efficient though it is now operating at a considerably lower level of standby capacity than that funded by WA Health.

SJA changed its systems and reduced call-takers' and dispatchers' discretion after the Inquiry identified a need for an immediate response to triple zero calls

In evidence before a Parliamentary Committee in December 2009, the Inquiry Chairman said 'the real issue we discovered in [the] inquiry was the operations of the call centre. It is so crucial that when a person rings that call centre on 000, there needs to be an immediate response'. Following the Inquiry, SJA introduced a structured call taking system, ProQA, and dispatch priorities for ambulances are now usually determined in less than a minute. Certain situations, such as a caller reporting breathing difficulties or a gash to the head, will result in an emergency ambulance being dispatched as soon as the call taker enters that information into the system.

ProQA is a risk averse system. It is intended to address the risk of under-prioritisation by call takers by tending to assume a 'worst case' scenario and restricting call takers' and dispatchers' discretion. ProQA is patented software and used in other Australian states and territories. SJA requires the approval of the US National Academy of Emergency Medical Dispatchers to vary the questions call takers ask or the medical advice they give.

Ambulance services have improved since the Inquiry
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Call centre staff lead callers through the set of questions and enter their responses into ProQA. ProQA then provides a code assigning a priority which determines the dispatch priority and response time target (See Table 2). SJA is able to change the priority attached to a ProQA code by reprogramming its ‘response matrix’ in its Computer Assisted Dispatch (CAD) system.

Dispatch Priority	Response Time Targets
Priority 1	Potentially life threatening emergency, with dispatched ambulances using lights and sirens, responded to within 15 minutes
Priority 2	Urgent but no immediate threat to life, responded to within 25 minutes
Priority 3	Non-urgent calls, responded to within 60 minutes
Priority 4	Bookings – no response time target
Priority 5	Sporting events – no response time target

Table 2: Ambulance Priorities with response time targets (1-3 only)

SJA’s CAD system automatically provides the dispatch priority rating attached to a ProQA code. Using crew rosters and the GPS (Global Positioning System) coordinates now available for many ambulances, CAD identifies the closest available ambulance crews.



SJA’s Computer Aided Dispatch (CAD) system.

Adherence by call takers and dispatchers to the ProQA script and priority ratings is closely monitored. Call takers or dispatchers can refer any concerns about their response to clinical support paramedics after completing the calls or dispatch. The clinical support paramedics can then make a decision to upgrade the priority rating in which case the ambulance crew is informed of the change. Following the Inquiry, clinical support paramedics were placed in the call centre 24 hours a day and authorised to depart from ProQA and priority ratings if clinically appropriate. They in turn, can seek the assistance of rostered medical advisers.

ProQA is risk averse and assesses more calls as emergencies: people who need an emergency ambulance are now more likely to get one but more calls are over-prioritised

People who need an emergency ambulance are now more likely to get one. SJA's call centre assessed more calls as Priority 1 after the introduction of ProQA in May 2011. Priority 1 calls increased from 30.5 per cent in 2009-10 to 39.8 per cent in 2011-12. A high proportion of Priority 1 calls is consistent with other jurisdictions using structured call taking. In 2011-12 New South Wales assessed 58.7 per cent of responses as Priority 1.

Ambulance crews assess the priority of a call after they arrive at the scene and observe the patient. Calls assessed by ambulance crews as emergencies which had already been identified by the call centre as Priority 1 increased from 74 to 78 per cent between 2009-10 and 2011-12 (from 3 675 out of 4 996, to 4 578 cases out of 5 891).

More calls are also over-prioritised. Calls assessed as Priority 1 by the call centre but prioritised downwards by ambulance crews increased from 28 to 37 per cent of all calls between 2009-10 and 2011-12 (from 45 962 cases out of 163 683, to 68 837 cases out of 184 869).

Not all of these cases necessarily equate to over-prioritisation by structured call taking. For example, callers might provide mistaken or ambiguous information. However the proportion of emergency ambulances dispatched has increased significantly since the introduction of ProQA. SJA expressed reservations during the Inquiry about the efficiency of the allocation of higher priorities by structured call taking systems.

Over-prioritisation is a serious issue. Ambulance crews use flashing lights, sirens and exemption from ordinary road rules to rush to arrive at the scene in 15 minutes of a Priority 1 call, if they believe it is safe to do so. In some circumstances, this may create unnecessary risk to road users. If over-prioritisation leads to significant increases in demand it could result in a need for more crews to be on standby which could have a cost implication.

Ambulance services have improved since the Inquiry but with different results for metropolitan and country areas

Since its introduction, SJA has changed the priority ratings attached to ProQA codes a number of times, including reducing the priority ratings for falls and trauma injuries from Priority 1 to 2. SJA should continue to monitor and adjust the prioritisation of calls using evidence-based clinical assessment.

Response times in the metropolitan area improved despite increased demand and ramping because SJA has more staff and is more efficient

Response times for emergency ambulances (Priority 1) improved in the metropolitan area in 2011-12 and the year to date for 2012-13. In the last financial year (2011-12) SJA was very close to meeting its contractual target, with 88.9 per cent of ambulances arriving at the scene within 15 minutes against a contract target of 89 per cent. In the current financial year SJA is exceeding its 90 per cent response time target for emergency calls. (Table 3) This was despite:

- demand for emergency ambulances increasing by 48 per cent between 2009-10 and 2011-12, from 49 733 to 73 404
- ramping times increasing by 35 per cent between 2009-10 and 2011-12, from 4 936 to 6 641 hours in the metropolitan area. It reached its highest levels in July 2012 (over 2 100 hours). In the 10 months to 30 April 2013 ramping totalled 12 446 hours – a 144 per cent increase on the same period in the previous year.

Metropolitan Area	2009-10*	2010-11	2011-12	2012-13**
Emergency calls responded to within 15 minutes	87.6%	85.2% (Contract target: 88%)	88.9% (Contract target: 89%)	92.2% (Contract target: 90%)

* There was no contract in 2009-10

** Year to date till 30 April 2013

Table 3: Percentage of metropolitan emergency (Priority 1) calls responded to within the Contract targets

Response times for emergency calls have improved in the metropolitan area.

Response times are the main performance measure for ambulance services throughout Australia and internationally. Response times are one indicator of the efficiency and effectiveness of ambulance services as it is believed that adverse effects on patients and the community are reduced if response times are reduced. SJA's response time under its Contract with WA Health is 15 minutes for Priority 1 calls, and its target for 2012-13 is for 90 per cent of ambulances to arrive within that time. SJA's response time starts from entering a call into the dispatch system and ends when the ambulance arrives at the scene.

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SJA was able to improve response times and meet increasing demand on its services, in part, because it employed more staff. Between 2009-10 and 2011-12, following the Inquiry, SJA substantially increased its metropolitan ambulance paramedics (from 402 to 491) and transport officers (from 35 to 66). SJA has also rostered its crews differently to operate more efficiently and better meet demand and response time targets.

This is reflected in changes in the metropolitan standby capacity that SJA has delivered. In 2011-12, SJA was very close to meeting its response time target with a metropolitan standby capacity of 42 per cent. Year to date 2012-13 data shows SJA meeting response time targets with a standby capacity of 41 per cent to 30 April. This is in contrast to a standby capacity of 45 per cent just before the Inquiry, and the 52.5 per cent used to calculate the funding under the Contract. SJA informed us that ramping is one of the reasons the standby capacity has been reduced, and that at times up to one-third of its ambulance fleet has been ramped.

SJA has met its response time targets with a lower level of standby capacity than that funded by WA Health. This indicates that the estimate used in the contract (52.5 per cent) may have been over-estimated or based on outdated ways of operating. Future contractual negotiations will need to be based in part on a better understanding of how the ambulance service operates and the cost drivers of providing an efficient ambulance service.

SJA has changed its approach for ramped patients, but efforts to reduce ramping have so far been unsuccessful

Ramping occurs when an Emergency Department (ED) is unable to take over the care of a patient brought in by SJA so that the patient needs to stay on the ambulance stretcher and remain in the care of ambulance paramedics. Only after the hospital takes over the care of the patient and the patient is removed from the ambulance stretcher can the ambulance return to active service. Only lower acuity patients may be ramped. The number of patients seeking ED services can impact on levels of ramping as it can affect the capacity of the ED to take over care of patients brought in by ambulance. Demand for ED services has increased over recent years

WA Health and SJA have made efforts to reduce ramping times but have so far been unsuccessful. Ramping times increased by 35 per cent between 2009-10 and 2011-12, from 4 936 to 6 641 hours in the metropolitan area. There was some improvement during 2011 but this has not been sustained. Ramping reached its highest levels in July 2012 (over 2 100 hours). In the 10 months to 30 April 2013 ramping totalled 12 446 hours – a 144 per cent increase on the same period in the previous year. SJA, in partnership with WA Health and Hollywood Private Hospital, is currently undertaking a temporary trial to provide an Ambulance Surge Capacity Unit that will give low acuity patients an alternative care pathway and help reduce the impact of ramping during the 2013 winter months.

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Patients are 'ramped' if their movement into an assessment bay is delayed and they need to stay on the ambulance stretcher in the ED until a bed is available. Ramped patients will be triaged by ED staff like other patients and any assessed as Australasian Triage Scale (ATS) 1 or 2 are admitted. Otherwise the ramped patients remain on ambulance stretchers and are the responsibility of SJA although it is recognised that both SJA and WA Health hold a duty of care to the patient.

In the interests of patient care, SJA has revised its policy to give ED staff increased access to ramped patients. Under the policy, SJA staff continue to conduct observations, but hospital staff are given 'access to take bloods for pathology of patients'. This change in policy is assisting to reduce some of the concerns between SJA and ED staff associated with ramping.

Although the metropolitan Priority 1 response time target is currently being met, ramping can still affect patient outcomes. Ambulances may not be available to respond to other calls as quickly as they would otherwise be able to. As a result people will wait longer before being taken to hospital or transferring between hospitals.

The definition of ambulance ramping is the length of time an ambulance has to wait in excess of 20 minutes from the arrival at the ED until the ambulance is available to return to active service. Twenty minutes is excluded to allow for the average time needed for moving the patient to ED, cleaning, restocking and any required break for SJA staff, based on studies SJA did in 2002 and 2012. The only times counted are when ED staff inform SJA crews they are 'ramped' and SJA's operations centre records this. There are other occasions when a crew is at a hospital for more than 20 minutes but it is not counted as ramping.

WA Health considers that removing 20 minutes from ramped time is inconsistent with other Australian jurisdictions. WA Health advised us that SJA is collaborating with WA Health to develop a new performance indicator for 'off stretcher' time – when the patient is moved off the SJA stretcher and onto an ED bed. WA Health believes this is more comparable to other Australian jurisdictions and relates more directly to patient care.



Photo courtesy of St John Ambulance Australia (WA)

Ambulances are ramped outside a hospital.

Hospital staff told us that in the past hospitals admitted patients even when they did not have adequate capacity. WA Health informed us that this practice has changed over the last 10 years, due to health and safety issues with admitting an unlimited number of patients to the ED in spite of limited capacity. Therefore, patients not triaged as ATS priority 1 or 2 by hospital staff are no longer admitted if capacity is unavailable, which can contribute to ramping.

SJA and WA Health's efforts to reduce ramping have so far been unsuccessful. The case study below covers a trial to better distribute ambulances using a maximum rolling hour limit for ambulance arrivals at hospitals which was not conclusive.

Case Study: A trial to reduce ramping by distributing ambulances by 'rolling hour'

In a trial in 2012, WA Health replaced its 24 hour targets for distributing ambulances to key hospitals with a maximum rolling hourly limit for ambulance arrivals at each site. This was intended to better enable SJA to distribute ambulances according to geography, the clinically appropriate hospital and ED status. A rolling hour was preferred because it reduces the 'bunching up' of ambulance arrivals.

A draft WA Health report stated that ramping hours increased during the trial. It cited factors making it difficult to assess the trial, including an increase in 'Influenza like illness' presentations. Even after the trial ceased on 5 July 2012, that month experienced the highest number of ramping hours ever recorded in WA. This makes it difficult to draw any conclusions about the effectiveness of the trial.

Response times are one measure of the performance of ambulance services but these do not relate to patient outcomes

Little research has been done on the relationship between the response time targets used for WA ambulance services and patient outcomes. It is not clear what difference a response time of 15 minutes as opposed to 10, 12 or 17 minutes makes. The 15 minute response times are, however, generally used across jurisdictions. Recently, the Victorian Auditor General noted that much of the research on setting response time targets concerned cardiac arrests, and that research had not produced universally accepted response times for ambulance services to guide indicator targets. He called for response time targets to be evidence-based, using clinical research into the relationship between ambulance times and patient outcomes.

There is one other limitation with using response times as the main measure of ambulance service performance. Different jurisdictions count response times from different starting points (Figure 3) making national comparisons difficult. SJA's response times are measured starting from the time that calls are entered into the CAD for dispatch.

At present there is no requirement for SJA to report to WA Health generally on patient outcomes. Nationally efforts are underway to identify clinical indicators to measure the effectiveness and quality of ambulance services' clinical interventions and treatments. SJA's Clinical Services Director, a Professor in the field of Emergency and Pre-Hospital care, is also working towards the development of these indicators.

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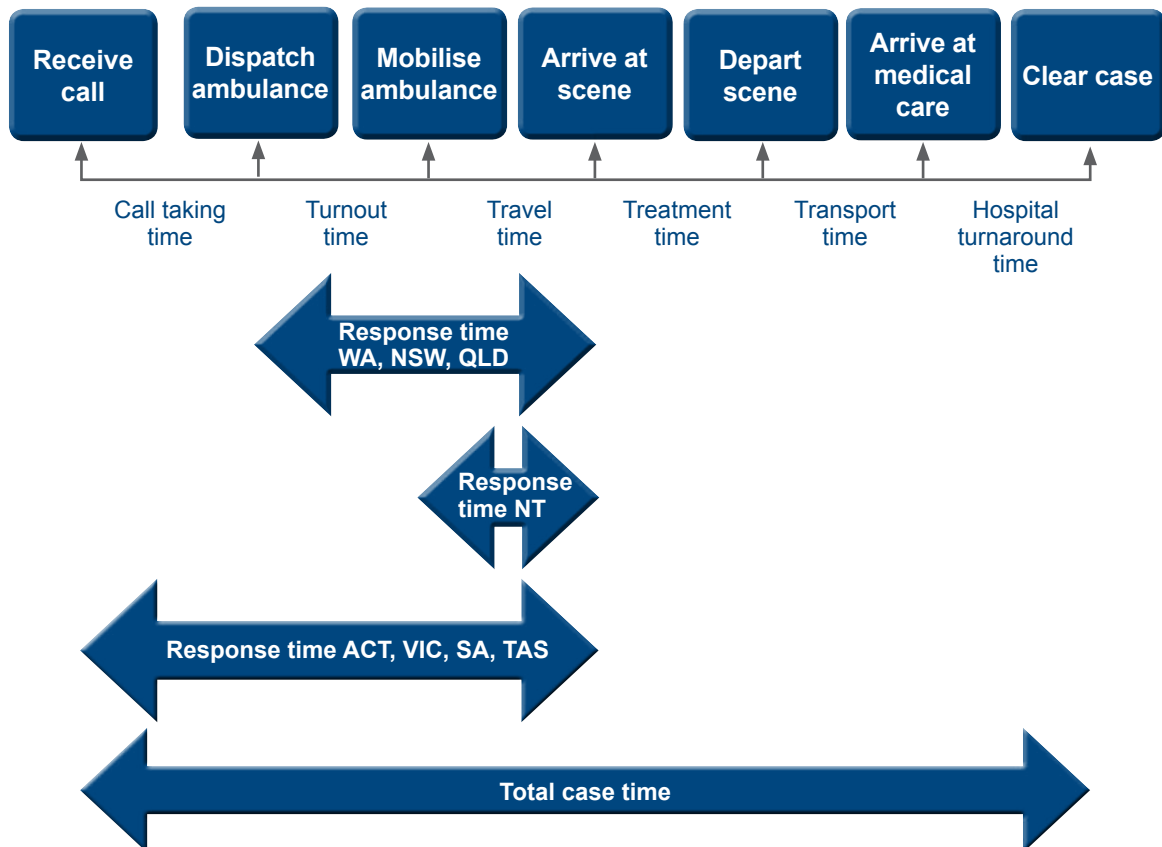


Figure 3: Measurement of response times for ambulance services in Australia
Response times are counted from different points in time in different jurisdictions.

SJA's regionalisation improved country ambulance services but some problems remain, and there is no clear means of assessing whether paramedics are stationed where they are most needed

Delivering ambulance services in country WA is challenged by reliance on volunteers, the size of the state, increasing demand and difficulties in filling medical positions

There are challenges in delivering ambulance services in country WA. Volunteers play a critical role and make a significant contribution in meeting these challenges. While the reliance on volunteers enables wider coverage of services in a very large state, it also presents its own challenges as do increasing demand and difficulties in filling medical positions in the country.

There are different service models across jurisdictions. Some of the reasons why WA has a high ratio of ambulance centres and a relatively low cost service are:

- SJA relies more heavily on local volunteer ambulance officers than paid staff to deliver services in country areas. WA has 6.2 volunteer sub-centres per 100 000 population compared to 1.5 nationally
- ambulance use in WA is relatively low: 101 patients per 1 000 population compared to 136 nationally. Only 36.3 per cent of ED patients arrive by ambulance in WA compared to 46.7 per cent nationally
- SJA uses patient transport officers and vehicles instead of paramedics and ambulances for non-emergency patient transport
- SJA can refer callers to the *healthdirect* phone service as an alternative to dispatching an ambulance.

Reliance on volunteers costs less and allows SJA to engage local people rather than 'importing' trained staff. Country communities benefit from greater resilience, self-sufficiency and connectedness. Volunteers gain useful skills and the sense of worth associated with contributing a significant service to their communities.

The role of a volunteer ambulance officer is a demanding one. If there are few active volunteers, the burden of meeting rostered shifts can be too much, particularly for those working full time and with family and other commitments. Volunteers are sometimes at significant risk, driving long distances in hazardous conditions. They confront traumatic situations and distressed people, sometimes without access to professional support. In country towns, the incidents they respond to often involve people they know. They also have to be available for non-urgent patient transfer across country WA.

Country communities that have not approached SJA to establish a sub-centre will have no ambulance service unless SJA or WA Health allocates paid resources. Otherwise, these communities rely on the nearest available service or the Royal Flying Doctor Service (RFDS). The service provided by the RFDS does not remove the need for road ambulance transport. Retrieval of patients from the site of accidents or illness or from a health facility, still often requires the patient to be moved by road to an airstrip.

Despite the high ratio of sub-centres to population in WA, there are gaps in the delivery of SJA's ambulance services. Sub-centres can be few and far between: three in the Kimberley, nine in the Pilbara and 20 in the Goldfields (Figure 4). These gaps in ambulance services mean that people will sometimes depend on the goodwill of passers-by, volunteers, or professional staff who go beyond their job requirements to assist them in times of need, despite the risk this poses.

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Source: SJA (November 2010) Annual Report 2010-11, p. 23.

Figure 4: SJA sub-centre and sub-branch locations (2010-11)

The vast majority of SJA response locations are in the Southwest of WA, where most of the population lives. Elsewhere response locations are sparse. Country sub-centres undertake one-quarter of all ambulance activities.

WA Health operates its own ambulance service in the Kimberley towns of Derby, Fitzroy Crossing and Halls Creek. All of these sites have hospitals and hospital orderlies and nursing staff deliver the ambulance service. In 2011 WA Health reported that it provided 53 per cent of the ambulance activities in the Kimberley. Single nursing posts operated by other agencies also provide ambulance services throughout parts of WA. For example, many Aboriginal communities have limited access to ambulance services and some rely upon Aboriginal Medical Service nurses. At times, police, emergency volunteers and others will assist.

Marble Bar and Nullagine highlight some of the limits of delivering country ambulance services, whether funded or volunteer. SJA does not have sub-centres in these locations as communities have never approached SJA to establish local ambulance services. In the 2010-11 State Budget WACHS received funding for ambulance services in these towns. So far WACHS has not been able to attract and retain professional ambulance staff for these locations.

For SJA, placing paramedics at these locations on a permanent basis is not viable because activity levels are too low to keep their skills current. Filling these positions on a rotational basis is one option, but this depends on qualified paramedics going to these relatively isolated communities on a transitory basis, which may not make best use of limited health funding in regions with limited services.

An alternative option was for WACHS to provide the ambulance service as it does in the Kimberley. But Marble Bar and Nullagine are different, having single nursing posts rather than hospitals. There are occupational safety and health issues if nurses at single nursing posts provide such a service. The recent and tragic death of a WA Health nurse while transporting patients to the Nullagine airfield makes the seriousness and difficulty of these issues clear.

Other challenges to country ambulance services include:

- growth in some regional populations due to local industries such as mining, fishing and construction, but a decline in other areas
- growth in tourism and adventure sports
- the ageing population.

A significant amount of major trauma also originates in country areas.

Another factor is increasing demand due to technological advances such as greater mobile phone coverage and satellite phones. Previously there was often no means to call for an ambulance throughout much of regional WA. Changed technology not only increased the range in which requests for ambulance assistance can be made but the distances that country sub-centres need to cover.

More recently there have also been difficulties in filling WACHS medical positions. This impacts on ambulance services because patients may have to be transferred longer distances to access appropriate medical care. WACHS is trying to address this issue with initiatives such as the Emergency Telehealth Service in the Wheatbelt and contractual arrangements with General Practitioners who can provide emergency care.

Country services have improved with increasing paramedic resources, support for volunteers and coordination of country dispatches but there are still challenges

SJA's regionalisation initiative has significantly improved country services. It increased numbers of transport officers, ambulance and community paramedics by 54 per cent, and located corporate staff in country regions. SJA established the new model after the Inquiry found the country system had been stretched to its capacity. It is important that regionalisation continues to focus on the challenges of delivering services in the country.

Government and SJA jointly fund the regionalisation project. Notable changes and improvements include:

- increasing ambulance paramedics and transport officers in busier country locations (from 60 to 83 between 2009-10 and 2011-12)
- increasing community paramedics (from 3 to 14 between 2009-10 and 2011-12)
- locating SJA corporate staff in country areas, to provide professional training and support for volunteers, a better response to local demands and a closer alliance with WACHS in regional areas
- increasing SJA country volunteers, including volunteer ambulance officers, from 2 605 in 2008-09 to 3 262 in 2011-12.



Country communities benefit from SJA volunteer ambulance officers through greater resilience, self-sufficiency and connectedness.

The community paramedic's role is to strengthen the volunteer model which is different from the traditional paramedic whose main responsibility is to respond to incidents

Community paramedics provide important support to volunteer ambulance services but there is a blurring of their role and a lack of quantitative data to demonstrate that they are delivering the support where most needed.

The community paramedic role is to develop localised strategies to recruit and retain volunteers, support and mentor volunteer ambulance officers, conduct and assist with volunteer training and develop links with the local community. Because their role is not to respond to calls, community paramedics can operate usefully in more locations than ambulance paramedics. They are not restricted in the same way as traditional paramedics by having insufficient work in areas with low ambulance activity.

However, in June 2012, SJA confirmed at least four of its 14 community paramedics were also providing ambulance response capacity. There is a risk that this can negatively impact on their ability to fulfill their main role which is to support the volunteer model.

SJA provides only qualitative information to WA Health and no quantitative data to demonstrate that community paramedics deliver what local communities need. These paramedics were initially allocated to low activity locations but are now also located at the two busiest career sub-centres, Kalgoorlie and Geraldton. Having flexibility to address local needs is positive and factors considered when allocating community paramedics now include an 'adequate' number of call outs, the coverage of multiple volunteer sub-stations, and the number of volunteers. Quantitative data could help ensure that these resources are targeted to best meet community needs.

Relocating some of SJA's corporate staff to the country is resulting in a much better response to local demands and a closer alliance with WACHS in regional areas

Staff and volunteers who we interviewed said that the relocation of some of SJA's corporate staff has resulted in a much better response to local demands and a closer alliance between WACHS and SJA in regional areas. Rather than trying to tailor a 'solution' for each region regionalisation was seen as a structure allowing for the identification and resolution of problems at a local level. Prior to the Inquiry, regional managers were located in Perth.

Ambulance services have improved since the Inquiry but with different results for metropolitan and country areas

SJA's regional staff can provide:

- professional training and support for volunteers including more flexible training delivery to enable 'fly in fly out' workers to complete SJA training in their home and work communities
- liaison with hospital staff to improve coordination for emergency responses to natural disasters and multiple road accident injuries and fatalities
- better links with local industry to access helicopters in emergency situations
- better engagement with Aboriginal communities to:
 - provide skills and opportunities for those communities
 - ensure their members use ambulance services appropriately.

SJA has six regional managers with only one manager for the Kimberley and Pilbara (Figure 4). Although this may be equitable based on population numbers, stakeholders identified that the vast area involved makes it difficult for one regional manager to effectively engage with local services.

Career sub-centre response times have increased while country volunteer sub-centre average response times have improved

With structured call taking, and a uniform process for assessing call priorities, the number of emergency calls in country areas increased between 2009-10 and 2011-12 by 67.7 per cent. This has particularly affected the 13 country career sub-centres which have experienced an average increase of 70.2 per cent over the same period. At the same time the number of ambulance paramedics and transport officers in career sub-centres increased from 60 to 83. There has also been a decline in the emergency calls responded to within 15 minutes, from 83.4 to 76 per cent in year to date for 2012-13, and it remains well below the Contract target of 89 per cent (Table 4).

Country Career Sub-Centres	2009-10*	2010-11	2011-12	2012-13**
Emergency (Priority 1) calls responded to within 15 minutes	83.4%	82.2% (Contract target: 85%)	81.1% (Contract target 87%)	76.0% (Contract target 89%)

* There was no contract in 2009-10

** Year to date till 30 April 2013

Table 4: Percentage of country career sub-centres emergency calls responded to within 15 minutes

In SJA country career sub-centres Priority 1 response times worsened.

**Ambulance services have improved since the Inquiry
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From 2009-10 to year to date 2012-13, volunteer sub-centre Priority 1 ambulance call-outs increased from 5 204 to 6 815. The 15 minute response time target does not apply to country volunteer sub-centres, but the average time to respond to an emergency call improved (from 24.47 to 18.30 minutes between 2009-10 and year to date 2012-13) (Table 5).

Country Volunteer Sub-Centres	2009-10	2010-11	2011-12	2012-13**
Average response times (minutes) for emergency calls	24.47	21.63	19.70	18.30

** Year to date till 30 April 2013

Table 5: Average emergency (Priority 1) response times (minutes) in country volunteer sub-centres

In country areas with only volunteer staff, there are no contracted target times but average response times improved.

Setting response time targets is particularly difficult for country areas. Realistic target setting would factor in population and traffic density, topography, and road/transport infrastructure. For example, in 2011-12 the Contract required career sub-centres to respond in 15 minutes for 87 per cent of Priority 1 calls. It is not clear whether the target is evidence based and if sufficient calls are from locations which could realistically be responded to within that timeframe. SJA is working on a system to report responses within town boundaries separately to those outside the boundary. This should result in more accurate response time reporting and expectation setting.

The issue is further complicated for volunteer sub-centres. Volunteer ambulance officers may not be present on-site. SJA's data shows that a 15 minute response target would not be realistic when it takes an average of 15 minutes for volunteer crews to get on the road (Figure 5).

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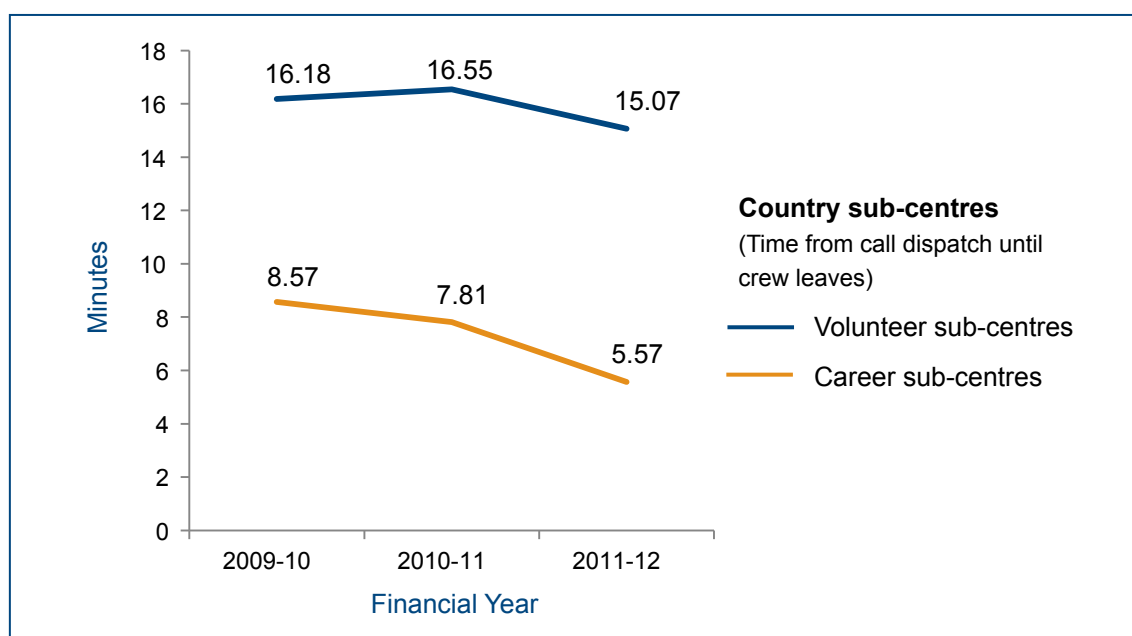


Figure 5: Time from call dispatch until crew leaves sub-centre by career sub-centres and volunteer sub-centres (minutes)

Volunteer crews may not be at the sub-centre and so take longer to get on the road.

Country volunteer ambulance officers have less clinical oversight of their work

Only country sub-centres have volunteer ambulance officers. The minimum qualification for these officers is a senior first aid certificate and the first 16 hours of the Primary Ambulance Care course. Generally they work with another volunteer that has an Advanced Ambulance Care certificate. However, their work is not subject to clinical audits. The Inquiry found that patient care records from rural sub-centres were not centrally held and were 'never scrutinised by Clinical Team Leaders'. It found that this resulted in limited oversight of country practices and also represented a missed opportunity to increase support for rural paramedics and volunteers. While SJA has made good progress overall with clinical governance, they have not yet implemented appropriate clinical audits in the country.

Some SJA volunteers are qualified health practitioners, others will have gained their skills over years of service. Still others may only have just completed the minimum qualification and have little or no experience. According to the Inquiry Implementation Report a national benchmark survey on continuing education showed that SJA's training was equal and in some cases better than that of other jurisdictions.

SJA offers other courses for volunteer ambulance officers: a 64 hour Primary Ambulance Care course, a two day Advanced Ambulance Care course, a Volunteer Ambulance Officer refresher course and a range of other training modules. There is also a pathway to allow volunteers to gain a Certificate III or IV if they wish to do so.

SJA data on the qualifications of its ambulance volunteers showed that 65 per cent of volunteers have attained the maximum qualification available (Figure 6).

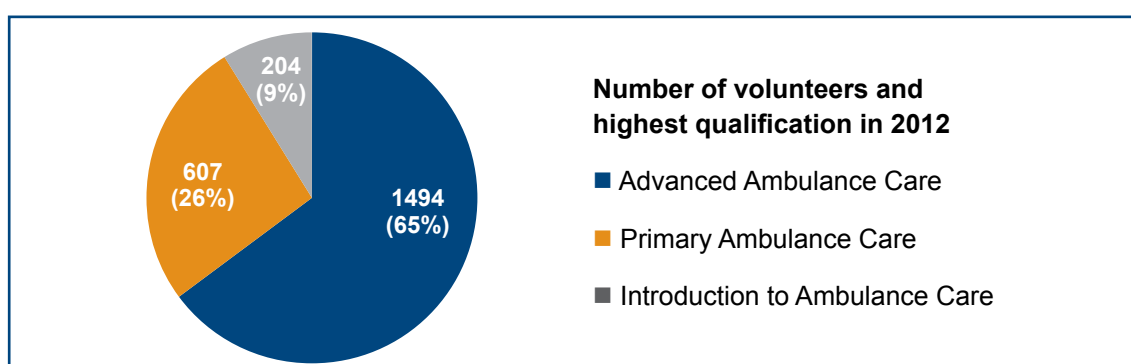


Figure 6: Numbers of volunteer ambulance officers and their highest ambulance qualification in 2012

Most volunteers have progressed to SJA's highest qualification for volunteer ambulance officers.

Volunteer ambulance officers working in sub-centres with ambulance or community paramedics told us that the opportunity to work with professional staff was invaluable. They were not only better supported when responding to calls with paramedics but appreciated the ongoing mentoring and opportunities to learn. Volunteer ambulance officers working in other sub-centres do not have these opportunities, although they can and do benefit from the support, mentoring and training available from other, and more experienced, volunteers. The placement of clinical support paramedics in the call centre 24/7 provides another resource for volunteers when responding to difficult calls, provided they are in call range.

SJA started the roll out of iPads to some country sub-centres in 2012, providing capacity for electronic patient care records (ePCR) to be centrally stored in SJA's mainframe and so be available for clinical auditing. However, during our fieldwork in October 2012, SJA volunteers were not able to log into the iPads. The logistics of initiatives such as this by SJA should not be underestimated with 115 country sub-centres, run largely autonomously, each with its own management committee and mainly self-funded.

Nonetheless the SJA volunteers we spoke with said they would very much welcome the scrutiny of their work and constructive feedback on how they could improve their skills. As might be expected, these volunteers were committed to providing the best possible service to those they assisted. In our view given the extended timeframe for the rollout of iPads (ePCRs), SJA should have given more priority to implementing interim arrangements for the clinical oversight of volunteers.

Ambulance services in some areas may be under or over-resourced because WA Health lacks a clear means of assessing whether SJA stations paramedics where they are most needed

Most of SJA's funding from WA Health is used to employ paramedics. SJA is responsible for allocating the paramedics across the state, with the agreement of WA Health. SJA's basis for defining whether depots should be considered metropolitan or country is not clear. There are also significant differences in resourcing between different country areas with ambulance services in some areas appearing to be under or over-resourced. WA Health lacks a clear means of assessing whether SJA stations paramedics where they are most needed in the country.

All 30 metropolitan depots are fully staffed by paid paramedic and transport officer crews. All management, staff, infrastructure and equipment is funded by SJA, WA Health or Lotterywest. Metropolitan depots are located from Two Rocks in the north to Ellenbrook, Mundaring and Armadale to the east and Mandurah in the south. Most are staffed 24 hours a day. In 2011-12 metropolitan depots responded to three-quarters of all ambulance activities.

The 115 country sub-centres undertook one-quarter of ambulance activities in 2011-12:

- 13 are career sub-centres. One is fully staffed with paid ambulance paramedics and 12 operate with varying mixes of paid ambulance and community paramedics, and volunteers. Career sub-centres did 13 per cent of ambulance activities
- 102 are volunteer sub-centres, although 12 community paramedics provide support for their base and nearby sub-centres. Volunteers from these sub-centres did just under half of country ambulance activities (10 per cent of SJA's total activities).

SJA country volunteer sub-centres rely on committees to manage sub-centre finances and volunteer recruitment. SJA provides assistance by way of leadership, training, protocols and coordination of Lotterywest grants. SJA also supports the volunteer sub-centres through its 'Ambulances for Country' program which provides ambulances at no net cost. Fees charged for ambulance services enable management committees to accumulate reserves for future infrastructure requirements. Country communities provide not only the volunteers but also some of the funding for infrastructure and equipment.

SJA has no clearly established criteria for distinguishing where the metropolitan area ends and the country begins. SJA's metropolitan area is not defined by the Perth Regional Area nor locations within a specific distance from Perth city. For example, Mandurah is part of the Peel Regional Area but is classified as metropolitan Perth by SJA. There is no definition of metropolitan and country areas in the Contract and resourcing some areas as metropolitan or country appears to be historic.

In the metropolitan area SJA does not use ambulance activity levels as the sole criteria to determine the placement of ambulance staff at depots. SJA balances a range of factors including: total workload across the metropolitan area and best possible response times for the largest number of cases.

In the country, prior to the current Contract, there was no transparent formula for the allocation of paramedics to sub-centres. The current Contract funds capacity based on five levels of paramedic staffing determined by volume of ambulance activity. Following an adjustment by SJA in June 2012, the criteria are:

- eight ambulance paramedics if there are more than 3 000 activities per year
- six ambulance paramedics if there are between 2 500 and 3 000 activities per year
- four ambulance paramedics if there are between 2 000 and 2 500 activities per year
- two ambulance paramedics if there are between 1 500 and 2 000 activities per year
- one community paramedic if there are between 250 and 1 500 activities per year.

None of the 13 country career sub-centres have the number of paramedics applicable under the current criteria (Table 6). Some are better resourced than volunteer sub-centres which have more ambulance activities. Some of these differences appear to be historic and predate activity based criteria. SJA also advised that providing cover for when paramedics take leave was another consideration, though this is something we would have expected to be built into the criteria. SJA also told us that the arrangements at Bunbury fall outside of the resourcing model as this sub-centre does not use volunteers and therefore needs a higher number of paramedics. The number of ambulance activities that Bunbury undertook in previous financial years was above 3 000.

Ambulance services have improved since the Inquiry
but with different results for metropolitan and country areas

Career Sub-centres	Actual activity level 2011-12	Actual No. of ambulance paramedics	No. of ambulance paramedics according to SJA criteria	Apparent over (+) or under (-) resourcing
Australind	1 482	5	0	+5
Collie	938	4	0	+4
Bunbury	3 806	10	8	+2
Dawesville	1 617	4	2	+2
Norseman	136	2	0	+2
Northam	1 224	2	0	+2
Pinjarra	1 781	4	2	+2
Busselton	2 415	5	4	+1
Hedland	2 685	7	6	+1
Kalgoorlie	4 144	9	8	+1
Albany	3 567	7	8	-1
Geraldton	4 231	7	8	-1
Broome	2 998	4	6	-2

Table 6: Activity levels and SJA's criteria compared to actual allocation of ambulance paramedics at country career sub-centres

SJA's allocation of paramedics for career sub-centres is not consistent with its criteria.

SJA has implemented a clinical governance framework but it will take time to embed throughout SJA; its complaints system is more accessible

SJA has done much to improve its clinical governance framework in a short timeframe, ensuring better monitoring of patient care

Since the Inquiry SJA has developed and implemented a clinical governance framework. This:

- established new staffing resources to embed clinical governance throughout the organisation
- reformed the supporting committees structure
- strengthened processes for the investigation and reporting of clinical incidents, clinical audits and the development of Clinical Practice Guidelines.

Ambulance services have improved since the Inquiry but with different results for metropolitan and country areas

In March 2011, SJA engaged an external auditor to review the development and implementation of its clinical governance framework. The review was completed in December 2011. While it made some recommendations, the review found SJA had responded positively to the Inquiry and developed a clinical governance framework containing many of the core elements of a 'best practice' framework. Overall the review found a very significant improvement in SJA's clinical governance, in particular given the short timeframe.

The review noted that SJA focused on implementing individual Inquiry recommendations before October 2010 because the Inquiry had set 12 months for implementation. It suggested that to fully embed and integrate clinical governance throughout the organisation SJA would need to take a whole of organisation approach.

The review also made recommendations that were to be implemented in under 12 months, one to three years or over three years. SJA has informed us that it implemented all of the short term (within 12 months) recommendations. SJA will need to ensure that there is ongoing monitoring, reporting and engagement of executive and stakeholder groups so that they also meet the longer term recommendations.

Our discussions with SJA's staff and volunteers showed a marked and positive shift in attitudes towards clinical incident reporting and auditing compared to the survey that was conducted by the clinical governance framework auditors in mid-2011. This indicates that there is increasing acceptance of clinical governance throughout the organisation.

Clinical audits have expanded but are still largely limited to the metropolitan area

More audits of patient care records and live audits are now carried out because there are more clinical support paramedics and improved technology. Live audits occur when clinical support paramedics go to incidents with crews. There were 1 680 patient care record and live audits in 2011-12, up from 915 in 2010-11. These were for metropolitan services only.

Currently live audits are not conducted in country locations because clinical support paramedics only work in the metropolitan area. Country ambulance paramedics have only recently been included in clinical audits of patient care records with the roll out of iPads (ePCRs) to career sub-centres. Some community paramedics audit volunteers' patient care records, but there are no specific targets.

SJA is now reporting sentinel events to WA Health but is not required to report other serious clinical incidents

As a result of the Inquiry, SJA is required to report sentinel events to WA Health. Sentinel events are eight types of unexpected Severity Assessment Code 1 (SAC1) clinical incidents that can result in death or serious injury caused by healthcare. SJA has reported 12 SAC1 incidents out of over 450 000 patient transports since it began reporting to WA Health in 2010.

SJA's Contract does not require it to report all SAC 1 incidents to WA Health and as such is out of step with the WA Health policy that requires contracted health services to report all SAC1 incidents.

SJA follows up on its investigations of SAC1 incidents through modification of training and performance management of staff. For example, a recent policy change, restricting intubation of patients by paramedics, resulted from SJA's investigation of four clinical incidents which found breathing tubes were wrongly inserted into the patient's oesophagus instead of their windpipe.

All serious incidents are reported internally within SJA, in line with its clinical governance framework. Previously SJA did not consistently provide feedback to those reporting potential SAC1 incidents. SJA advises that its processes improved after an external audit of its complaints handling in 2012. SJA's processes should now be in line with best practice.

SJA's complaint handling system is more accessible

SJA now has a clearly identified process for making complaints on its website. To make it better practice, SJA could inform the public by updating its public website to contain:

- the principles contained in its internal complaints handling policy
- more information on its complaint handling process, including maximum timeframes for responding to, investigating and finalising complaints.

The Inquiry found no obvious complaints mechanism on SJA's website nor in any publicly available document. There was no information available to the public on how to lodge a complaint or on how the complaint would be handled. SJA revised its complaints handling policy following the Inquiry and again after the external audit of its clinical governance framework in 2011.

Subsequently an external auditor found that SJA had not made sure there were effective arrangements for feedback to complainants (internal and external). Similar views were expressed to us during our fieldwork. A follow up by the external auditors considered that SJA had adequately analysed the issues and a revised policy was adopted in May 2012.

Not all WA Health staff are aware of SJA's recently developed process for making complaints

Improving its complaints management system is one of the major changes SJA has undergone since the Inquiry, but it is taking some time for SJA's new processes and procedures to filter throughout an agency the size and diversity of WA Health. WA Health staff play an important role in monitoring the quality of SJA's services and WA Health should ensure that its staff are informed about how they can raise urgent concerns or complain about SJA's services.

SJA received 17 complaints from health professionals between July 2011 and August 2012, though we were unable to establish if any were from WA Health. None of the complaints were about clinical care, instead the majority were about the attitude of SJA's officers. There are also informal means to raise concerns. In both metropolitan and country hospitals the relationship between WA Health staff and local SJA managers, staff and volunteers provides another opportunity for concerns to be raised and addressed.

Some WA Health staff we interviewed were not aware of processes and procedures for raising either urgent patient care issues or general concerns or complaints with SJA. Some ED staff told us of incidents involving SJA practices which concerned them, such as whether:

- patients were provided with sufficient analgesics
- patients were being taken to hospitals equipped to deal with their particular needs
- there was too much or too little intervention by paramedics in regard to cannulating patients (the inserting of tubes into the body).

These concerns were not evidenced other than through our interviews with ED staff and may not have been justified or attributable to SJA. However our interviews indicated that there was a gap in some staff's knowledge of how to raise concerns with SJA.

SJA's Clinical Services Director has liaised with senior WA Health ED staff and alerted them to the ways to raise problems and complaints with SJA. The system in place is relatively straightforward and accessible. By calling the SJA number used by hospitals to book ambulances, health professionals can speak to a clinical support paramedic and the matter can be escalated to the on call medical adviser if required. The Clinical Services Director also convenes meetings with ED senior staff.

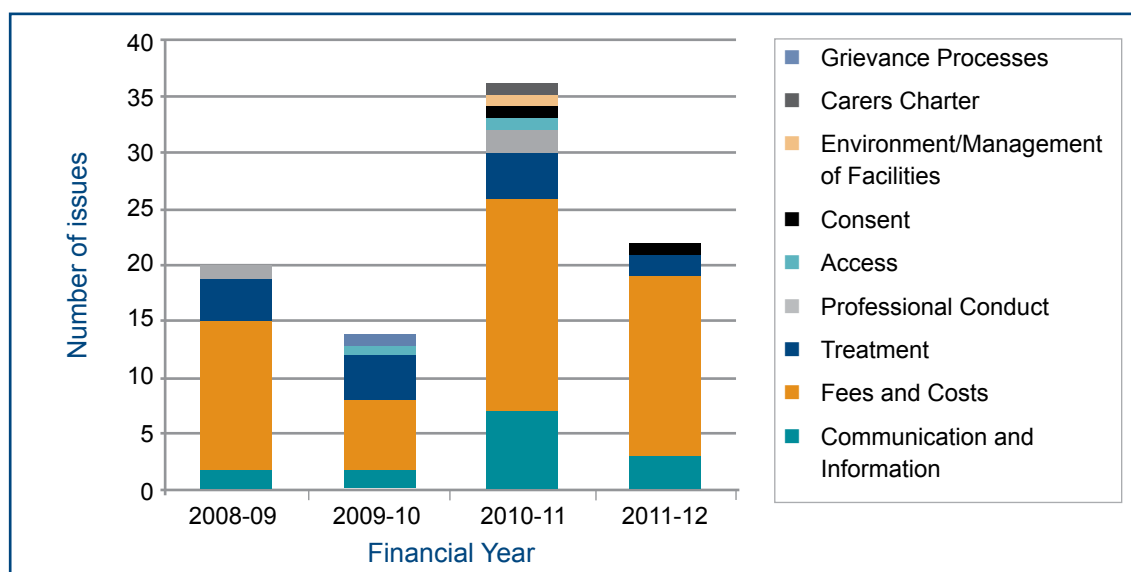
The Clinical Services Director believed that there were ample opportunities for both immediate concerns to be addressed or for (non-urgent) issues to be addressed through SJA's complaints handling process. While SJA does require complaints to be in writing so that these are correctly recorded and for future reference, these can be brief.

There have been few complaints to independent bodies about SJA and these are more concerned with fees than clinical care

The Health Consumers' Council (HCC) is an independent community based organisation, representing consumers in health policy, planning, research and service delivery. It advocates on behalf of consumers to doctors, other health professionals, hospitals and the wider health system. HCC collated information for us on complaints related to SJA from 2007 to January 2012. In total it had received 13 complaints. There had been some serious complaints although in recent times these were mainly about having to pay for ambulances. HCC advised that the attitude of staff was also a subject of complaint, but this was often raised by consumers about health professionals generally.

The Health and Disability Services Complaints Office (HaDSCO) is an independent statutory authority providing a resolution service for complaints relating to health or disability services provided in WA. Complaints about SJA make up a very small proportion of the total complaints it receives. It provided us with trends in complaints received about SJA between the financial years 2008-09 and 2011-12. The number of complaints received about SJA was similar in 2008-09, 2009-10 and 2011-12, with an average of 14 received each year. In 2010-11, there was an increase in complaints received, 23, although this continued to be only a very small number relative to SJA's activities.

The majority of complaints that HaDSCO received about SJA did not comply with HaDSCO's legislation; did not progress past an initial enquiry from consumers; or resulted in consumers being referred back to the provider to resolve the issues identified in complaints. Similar to HCC, many complaints concerned fees. Figure 7 indicates the break-down of the subject matter of complaints to HaDSCO about SJA.



Source: HaDSCO – Summary report: St John Ambulance Complaint Trends.

Figure 7: Proportion of issues received about SJA between 2008-09 and 2011-12

HaDSCO receives a small number of SJA complaints each year. The most common concern was fees.

The current Contract focuses on funding additional capacity in SJA rather than on managing service performance and demonstrating value for money

Contract management by WA Health has been effective, but the Contract limits WA Health's capacity to evaluate and demonstrate what is being achieved with its funding of SJA. Funding increased from \$42 million in 2008-09 to an expected level of around \$100 million in 2012-13.

The Contract delivered additional funding to SJA to increase its staff and ambulance capacity as recommended by the Inquiry. The Contract is input focused, and does not link funding to outputs and outcomes. WA Health has no mechanism to ensure SJA meets outputs, such as ambulance service delivery and performance targets, or clinical or other outcomes, such as standards of patient care. This limits the extent to which WA Health can demonstrate that it is getting value for money.

The current Contract does not provide an effective framework for future contracts for ambulance services. Future contracts should be more comprehensive with a focus on service delivery, standards, performance and allocation of risk.

Funding to improve SJA's ambulance service was made available after the Inquiry although SJA had requested it beforehand

With its then current contract ending on 30 June 2009, SJA made a submission for substantially increased funding from WA Health for its five year contract intended to run from 2009-10 to 2013-14. It appears that negotiations over that submission were not completed prior to the 2009-10 Budget as no additional funding was made available for SJA in the Budget in May 2009.

In July 2009 the Four Corners program aired, investigating claims by whistle-blowers inside SJA that inadequate responses to calls for ambulances could have contributed to the deaths of four patients. The Inquiry was established and it reported in October 2009. In May 2010, Government announced that the 2010-11 Budget would address the Inquiry recommendations, which aimed to improve the ambulance service. It allocated increased funding to WA Health for ambulance services of \$150.6 million over five years (2009-10 to 2013-14). \$10.2 million was to be retained by WA Health for country ambulance services and the remaining \$140.4 million was for SJA.

The Budget Papers identified the additional allocation as being in response to the Inquiry. However, it also included funding for proposals in SJA's 2009 submission but not related to the Inquiry. Funding was for:

- increased numbers of paramedics, transport and communications officers in each year until 2013-14, as set out in the Inquiry's implementation report. This report adopted the numbers originally proposed in SJA's 2009 submission as meeting the Inquiry recommendations

- new proposals that were made following the Inquiry. These related to the Inquiry but went beyond specific Inquiry recommendations including:
 - additional Information Technology and Media Relations staff and an additional \$24 million capital for electronic patient care records (iPads) and buildings
 - seven other positions, requested by SJA for additional human resource capacity but funded by WA Health as regionally based staff positions
- other proposals which had also been made in the 2009 submission but were not related in any way to the Inquiry. These included converting the model for Mandurah from a country to metropolitan service, and increasing the amount SJA can claim for a government subsidy for transporting aged pensioners and seniors.

There has been active contract management by WA Health but the existing Contract is limited

While WA Health's contract management is active with good engagement from SJA, there are a number of limitations in the Contract which restrict WA Health's capacity to ensure service delivery and continuing improvement. This also means that the Contract is not an effective model for future contracting of ambulance services.

SJA operated without a contract in 2009-10 and 2010-11 because of the Inquiry. The new contract was to be the primary mechanism for WA Health to monitor SJA's implementation of the Inquiry's recommendations. In 2010 the Inquiry implementation team identified that the funding model for ambulance services needed further development. SJA was preparing an activity based funding model to reflect the true costs of ambulance services but this was not finalised.

The existing Contract, for 2010-11 to 2012-13, was not signed off until August 2011. It does not include a new funding model and instead focuses on requiring SJA to increase its staffing levels as the primary measure of implementation and improvement.

WA Health receives the required performance information from SJA under the Contract in a timely manner. Emails, minutes of meetings and annotated reports demonstrate an active contract monitoring culture in WA Health and positive engagement from SJA. WA Health has monitored SJA's implementation of Inquiry recommendations (Appendix 1), and many of the specified targets under the Contract have been met.

Minimal numbers of WA Health staff are involved in managing the Contract. While this has been efficient it poses a risk of losing corporate knowledge if staff leave. However, this risk has been mitigated by good documentation of the Contract and management activities. This documentation demonstrates that WA Health staff have a good comprehension of the Contract and SJA's business.

However, there are a number of limitations in the Contract which restrict WA Health's capacity to ensure service delivery and continuing improvement. Specifically:

- funding is not linked to outputs, such as achieving response time targets or patient outcomes
- full time equivalent (FTE) targets for increases in categories of SJA staff are not effective, for example they include staff who do not provide emergency response capacity to the public and there are no FTE targets for some categories of SJA staff funded under the Contract
- despite SJA not meeting some FTE input targets, payments to SJA overall are in line with the maximum expected under the Contract. Any shortfall in payments because FTE targets were not met has been balanced out by the activity based components of the Contract
- there are no legislated standards for patient care, staff training or conduct and equipment for ambulance services in WA so standards need to be set and regulated through the Contract. The existing Contract includes some standards but these are not robust and the compliance framework needs development.

The Contract does not link funding to outputs, is largely inputs based and does not adequately cover outcomes such as improved patient care

Payments under the Contract are not linked to SJA meeting agreed levels and quality of service. For example, there are no incentives or disincentives linked to whether SJA meets response time targets. There is no financial risk to SJA under the Contract in relation to the levels and quality of service it delivers. WA Health proposed including disincentives in the current Contract but these were strongly opposed by SJA on the basis that the service is not fully funded by WA Health. SJA does not accept the idea of penalties for not meeting response time targets. In their view longer response times result from insufficient capacity not inefficiencies. They object to the idea that if response times are not being achieved the government purchases less capacity.

Much of the increased funding under the Contract is linked to SJA meeting FTE employment targets. These are input targets – they relate to resources used to provide the service rather than the service delivered ('outputs'). Employment targets are a limited gauge of whether substantive outcomes are achieved.

Monitoring input targets has also proved difficult and inefficient in some areas. For example, the Contract states that FTE targets should be measured on 1 July each year but does not specify how they should be measured. Variables include using actual employees as opposed to establishment positions, or permanent as opposed to casual staff.

WA Health has allowed SJA some flexibility rather than requiring strict compliance in claiming Contract payments. This was so SJA would be in a position to better deliver services. For example SJA was technically unable to claim full funding in 2010-11 because new paramedic recruits were not all available from 1 July 2010 as required. Instead WA Health funded SJA for costs associated with Inquiry recommendations, such as the clinical governance audit, training, recruitment and paramedic overtime costs to cover vacant positions.

WA Health advised that monitoring FTE input targets has been time consuming and inefficient, both for WA Health and SJA. WA Health considered SJA's administrative burden was inconsistent with the Government's Delivering Community Services in Partnership Policy issued in May 2011. WA Health is negotiating with SJA to reduce reporting requirements for metropolitan FTE. WA Health was prepared to do this because SJA is now meeting response time targets, seen as a critical output under the Contract and the Inquiry. Detailed reporting on country FTE remains necessary because funding is received under Royalties for Regions which requires specific acquittal.

FTE targets include staff who do not provide emergency response capacity to the public and there are no targets for some staff funded under the Contract

SJA tracks the increases in the number of paramedics it employs and met all FTE growth targets at June 2012. This includes industrial paramedics contracted out by SJA to mine or other industrial sites. The number of industrial paramedics employed by SJA increased from 45 in 2010 to 55 in 2012. These paramedics do not provide an emergency response capacity to the general public.

To ensure accountability for all funds, WA Health and SJA have worked collaboratively and agreed to a broader reporting framework. The framework takes into account all funded FTE and includes positions proposed in the SJA 2009 submission. This is an indication of the efforts made by WA Health and SJA to overcome the limits of the Contract. However, there has been a degree of ongoing confusion over seven positions requested by SJA as additional HR capacity, but funded by WA Health as regional support staff in accordance with the Contract. There is also a mismatch between the Contract target to increase the number of paramedics by 112, and the target that is actually monitored which is for an increase of 123. This is because the target in the Contract has not been revised to reflect a subsequent agreement between SJA and WA Health to fund an additional 11 paramedic positions for Mandurah.

The current Contract focuses on funding additional capacity in SJA rather than on managing service performance and demonstrating value for money

Payments to SJA overall have been in line with the maximum expected under the Contract although it has not met input targets

The only 'penalty' in the Contract is a reduction in payment if SJA is unable to meet FTE targets. However, where funding has been withheld because FTE targets were not met, any shortfall in the maximum expected Contract payment has been offset by the increased activity based funding for the Aged Pensioners and Seniors subsidy (Table 7). As a result, SJA's overall payment has been in line with the maximum expected under the Contract.

Year	2010-11	2011-12	2012-13	Total
Expected Maximum Price (\$ millions)	69.9	82	93	244.9
Actual payment to SJA (\$ millions)	68.5	84.6	–	–

Table 7: Expected Maximum Price and actual payment under the Contract (\$ millions)

In 2011-12, the payment received by SJA under the Contract exceeded the expected maximum price.

Unlike the previous contract which had a fixed cap on the Aged Pensioners and Seniors subsidy, the payment under the current Contract is uncapped. In 2011-12, the subsidy accounted for around one-third of the \$85 million that WA Health paid to SJA under the Contract. WA Health advises that the total payable to SJA in 2012-13 is likely to significantly exceed the Expected Maximum payment of \$93 million because of this subsidy.

SJA also subsidises aged and other pensioners 50 per cent of their fees. Generally these consumers are not expected to make a claim against their health insurance even if they are entitled to do so. Therefore the subsidies by WA Health and SJA also act to some extent as a subsidy to health insurance funds.

In WA, ambulance service standards need to be set and regulated through the Contract because there are no legislated standards

Except in WA and the Northern Territory, ambulance services in Australia operate under legislation, although different states and territories regulate different aspects of their services.

SJA's ambulance services are regulated internally or by way of its Contract with WA Health. Some standards are specified in the Contract, but these are limited and monitoring and enforcement is constrained. As a result, the current Contract does not provide an effective mechanism to ensure that patient safety and minimum standards are met.

Health practitioners, from 14 health professions, need to register with the Australian Health Practitioner Regulation Agency (AHPRA) to practice. However paramedics are not required to register in any state or territory. This means that the national powers to protect the public do not currently extend to paramedics. In line with an Inquiry recommendation, WA Health pursued the national registration of paramedics but this is now dependent on the Australian Health Workforce Ministerial Council.

There are ambulance services other than SJA operating in WA, providing non-emergency patient transport. Without legislated or other contracted standards in place, these services are subject to internal regulation only. This is a potential risk to patients as well as a clinical governance risk for WA Health, unless adequate contractual arrangements are made with all ambulance services operating in WA.

WA Health does not have a contractual framework for the purchase of Inter-Hospital Patient Transport resulting in administrative difficulties and a lack of clarity around costs

The Contract does not cover IHPT, and these services are generally purchased as needed by individual hospitals. WA Health's financial costs and arrangements for IHPT have been ad hoc, pricing uncertain and variable, and there is a lack of coordination. Ongoing disagreements between WA Health metropolitan hospitals and SJA about the cost of IHPT resulted in delayed payments to SJA and created 'an administrative burden for both organisations.' SJA informed us that since the audit a fee arrangement has been agreed with WA Health for these services.

Based on incomplete individual hospital data, we estimate more than \$12.5 million was spent on IHPT services by WA Health in 2011-12, most but not all provided by SJA. The most significant cost was to the WACHS (almost \$9 million). This is an area that could be better managed through appropriate contracting arrangements. IHPT costs are also not included in WA's nationally reported cost to government of ambulance services.

Limitations in the Contract make it difficult for WA Health to demonstrate if it has obtained value for money in the provision of ambulance services

Over the term of the Contract the total funding for SJA is almost \$250 million. This level of funding was, in large part, based on the estimated cost of having sufficient standby capacity to meet response time targets. Response time targets are the only measure under the Contract relating the cost, but not payment, to performance. On its own, response time is a limited measure of performance as it does not inform WA Health whether the service is delivered cost effectively and represents value for money.

For instance, SJA almost met its 2011-12 response time targets despite a much lower level of standby capacity than provided under the Contract, indicating potential for cost reductions or service improvements.

The Contract also does not have measures for quality of service, or to establish the cost effectiveness and performance of other funded initiatives such as increased call centre staffing and training, regionalisation (including increased numbers of country paramedics and support staff), technological advances and improved infrastructure and clinical governance.

WA Health would be better able to demonstrate value for money if it:

- had a better understanding of the factors affecting the costs and quality of ambulance services
- evaluated the services provided against the costs incurred on an ongoing basis
- used a broader range of indicators of cost effectiveness and performance.

SJA reports its performance on national indicators in the ROGS. These include: cost per capita; cost to government per capita; patient numbers; and patient satisfaction. While ROGS notes that comparisons across jurisdictions can be difficult and clinical indicators are still under development, the data shows that for most indicators SJA's performance is on par with or better than other jurisdictions. The majority of ROGS indicators are not reported to WA Health as part of the Contract.

The Government has had a longstanding policy of supporting a single emergency ambulance service

Government has had a longstanding policy of supporting a single emergency ambulance service. Many reviews have been conducted in WA over the last 25 years and have made similar recommendations: primary ambulance services should be delivered by a principal ambulance provider.

WA Health reported that one of the main reasons for this is that access to the emergency triple zero number is restricted to one fire, police and ambulance provider for public safety and to retain the integrity of the system. One of the results of this policy has been to limit WA Health's scope to use competition to demonstrate value for money.

WA Health does not have a good understanding of the factors affecting the costs and quality of ambulance services

SJA and WA Health acknowledge that standby capacity is not an adequate basis for calculating WA Health's funding for emergency ambulance services. In part this is because it relates cost only to response times and not the quality of services provided.

It also is not able to quantify the cost benefits of SJA's mostly volunteer country model. A new funding model for the next contract would help to provide greater assurance that WA Health is obtaining value for money for its funding.

The bulk of WA Health's funding of SJA is for the delivery of ambulance services in the metropolitan area. WA Health funds SJA for metropolitan crews to be on standby for 52.5 per cent of the time. This rate is drawn from a 1996 government report and the Inquiry implementation report. However, the current contracted standby capacity of 52.5 per cent does not reflect either SJA's current practices nor the demands and constraints within which services operate such as ramping. SJA are currently meeting response time targets with 42 per cent standby, indicating that greater cost effectiveness can be achieved by better understanding and addressing system constraints.

It is also difficult to quantify the benefits for WA Health of SJA's country volunteer model. Most country communities raise their own funds and provide themselves with all sub-centre infrastructure and equipment, management and staffing. Community members also pay to attend SJA's first aid training. These individuals can then provide a first aid response capacity in the community, and also apply to train as ambulance volunteers.

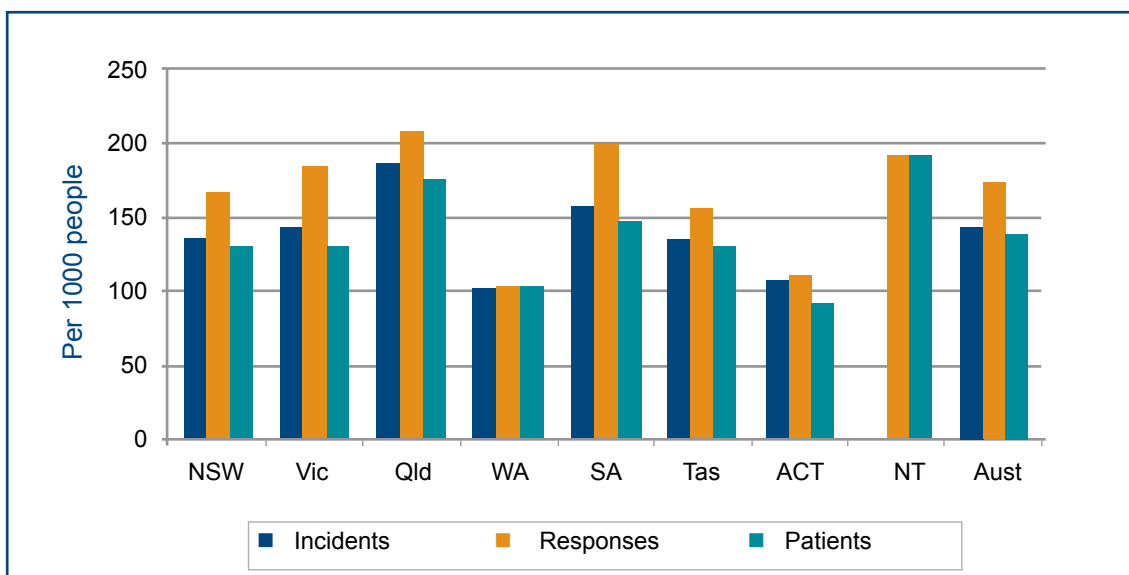
National indicators of cost per capita show SJA's costs are the lowest in Australia but, on its own, this is a limited measure

The Inquiry highlighted SJA's cost effectiveness by comparing the cost of the service averaged across the whole WA population (cost per capita) with other Australian ambulance services. According to ROGS, SJA's expenditure per capita continues to be less than all other ambulance services, at \$71.93 in 2011-12 compared to the national average of \$109.58.

However, relying on a single measure of cost effectiveness is limited and comparisons across jurisdictions can also be problematic:

- services across Australia rely to varying degrees on volunteers and SJA is more reliant than elsewhere. As a result national comparisons of total cost do not compare like with like – volunteers are a free or very low cost resource, and do not provide the same services as paid paramedics
- the cost per capita figure is affected by ambulance usage. SJA is one of the least used ambulance services in Australia. Only 36.3 per cent of ED patients arrive by ambulance in WA compared to 46.7 per cent nationally. In 2011-12 WA had 101 ambulance patients per 1 000 people compared 136 nationally (Figure 8)
- cost per capita does not take account of service effectiveness. For instance it does not reflect response times, quality or patient outcomes.

The current Contract focuses on funding additional capacity in SJA rather than on managing service performance and demonstrating value for money



Source: Report on Government Services 2012, p. 9.44.

Figure 8: Reported number of ambulance incidents, responses and patients in 2011-12

In 2011-12, WA patient numbers were low and ambulance services were used less than elsewhere in Australia except in the ACT.

It is outside the scope of this audit to determine the reasons for the low usage of ambulance services in WA. SJA informed us that its 'user pays' model and other factors result in lower usage and greater efficiency. Other factors include relatively low proportions of non-urgent patients being transported and collaboration with *healthdirect*.

Another measure of efficiency is the average cost of SJA treating or transporting a patient, the 'cost per patient'. We estimate that in 2011-12 the cost per patient in WA was \$712. The cost per patient nationally was \$805.

The cost per patient calculation also provides a useful perspective on the cost to government of providing ambulance services. In comparison to a per capita cost to government of \$37 in 2011-12, we estimate the cost to government per patient in WA was over \$370.

Future contracts need to be more comprehensive and focus on service delivery, standards, performance, allocation of risk and value for money

Where the current Contract focuses on supporting increased SJA capacity and the implementation of Inquiry recommendations, to ensure continuing improvement future contracts need to focus on service delivery, standards, performance, and allocation of risk.

Agreeing a different contracting framework and funding model represents a challenge:

- government has had a longstanding policy of supporting only one emergency ambulance service in WA which limits market testing
- because WA Health only partly funds SJA to deliver this service, WA Health will need to be clear about what outputs and outcomes it is purchasing from SJA and consider how it might apply financial incentives and disincentives effectively to those. In this context, incentives for innovation or improved performance and efficiency could be formulated around additional funding for other SJA services of benefit to the community
- given that paramedics currently are outside the scope of the national framework for regulating health practitioners and the absence of ambulance legislation in WA, future contracts should also set out comprehensive standards for patient care, training and equipment.

Following the Inquiry WA Health and SJA put a great deal of time and effort into ensuring that there is accountability for public funding received to increase SJA staffing levels. But the efficiency and effectiveness of this as a funding model is doubtful. It is now three years since the Inquiry implementation team identified the need for a different funding model, but it appears that little progress has been made. The existing inputs based Contract is being extended for another year while negotiations continue between WA Health and SJA for a new five year contract.

Although SJA believes it has sufficient ongoing strategic engagement with WA Health, there is a gap in senior level engagement between WA Health and SJA. The Ambulance Standing Committee set up under the Contract to enable WA Health and SJA to discuss and resolve strategic and complex issues, such as the funding model and ramping, has not met for over a year.

The current Contract focuses on funding additional capacity in SJA rather than on managing service performance and demonstrating value for money

The Committee was established under the Contract to meet every three to four months. Its members are drawn from the senior levels of SJA and WA Health and its Terms of Reference are to:

- provide strategic and policy advice on the provision of ambulance services in WA
- provide a link between executive management of WA Health and SJA to enable complex or strategic issues to be discussed
- ensure a good understanding of pre-hospital care provided by SJA.

The Committee started meeting every two to three months from March 2011 but has not met since October 2011.

A WA Ambulance Contract Management and Compliance Standing Committee was also established and remains active, meeting every six months. This Committee works in tandem with a sub-committee of SJA and WA Health contract management staff which met fortnightly initially and more recently monthly.



Photo courtesy of St John Ambulance Australia (WA)

Ambulance paramedics deliver an essential service to the WA community.

Glossary

Ambulance activity	An ambulance response to a request for assistance/demand for an ambulance
Ambulance incident	An event that results in the demand for an ambulance
Ambulance ramping	The length of time in excess of 20 minutes that SJA ambulances wait at a given hospital Emergency Department from the arrival until the ambulance is available to return to active service
Ambulance response time	The measure of how long it takes an ambulance to get to the scene
Career sub-centre	A country ambulance sub-centre with a mixture of ambulance paramedics and volunteer ambulance officers
CEP	Continuing education program
Community paramedic	A paramedic with a community development role in supporting and training volunteers. Although community paramedics are paid staff they are not generally included when reference is made to sub-centres with paid staff because their primary task is not responding to calls
Depot	A metropolitan ambulance response location
ED	Emergency Department
FTE	Full time equivalent (staff position)
<i>healthdirect</i>	The trading name for a nationwide phone line available 24 hours a day, seven days a week for healthcare triage, health advice and health information. The services available through <i>healthdirect</i> are wholly or jointly funded by federal, state and territory governments
IHPT	Inter-hospital patient transport also known as 'secondary transport'. Although in most instances patients will have been stabilised, these transports can be classified as Priority 1, potentially life threatening situations where sirens and lights are used, through to Priority 4
Patient	A person who is assessed, treated or transported by the ambulance service
Primary transport	Initial transport to hospital after a person is injured and requires assessment, first aid or treatment at the site or while transported

Glossary

Response time target	The target time set for ambulances to arrive at the scene which vary according to the priority of calls, e.g. a Priority 1 call has been assessed as being a life-threatening situation and the target is 15 minutes
RFDS	Royal Flying Doctor Service
SAC1	Severity Assessment Code 1 clinical incidents are incidents where serious harm or death is, or could be specifically, caused by healthcare rather than the patients underlying condition or illness. SAC 1 incidents include, as a subset, sentinel events
Secondary transport	Transport to a different health care facility after treatment at a health care facility
SJA	St John Ambulance Australia (Western Australia) Inc.
Transport officer	A person trained to transport non-emergency patients in patient transport vehicles rather than fully equipped ambulances
Volunteer sub-centre	A country sub-centre fully staffed by volunteer ambulance officers
WACHS	WA Country Health Service (part of WA Health)
WA Health	WA Health consists of Department of Health, North Metropolitan Area Health Services, South Metropolitan Area Health Service, Child and Adolescent Health Service, WACHS, Health Information Network, Health Corporate Network, Quadriplegic Centre, and the Queen Elizabeth II Medical Centre Trust

Appendix 1: Have SJA and WA Health implemented the 2009 Inquiry recommendations?

No	Recommendation	Implementation
1	Endorse the continuation of the existing service model, namely the provision of emergency ambulance services by an external provider.	Yes – by WA Health which finalised its 2009-10 to 2012-13 Contract with SJA in 2011. However it did take two years to complete this Contract. The current contract will be extended to 30 June 2014 and a new contract negotiated with a new funding model.
2	Implement, as a matter of urgency, all recommendations (both general and specific) emanating from the Root Cause Analysis process: <ul style="list-style-type: none"> i. Review and align call taking process to current best practice in the ambulance industry, taking into account clinical skills of call takers and structured call taking systems ii. 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 iii. Develop and implement a focus on clinical decision making in the call taking phase iv. 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 v. Introduce an audit process for the delineation of call prioritisation as part of a continuous improvement culture. 	Substantially – by SJA although it did not agree about what was best practice for call taking <ul style="list-style-type: none"> i. Structured call taking, as used in many other Australian and overseas ambulance services but which SJA did not agree was best practice, is implemented [Substantially] ii. Rather than building on the role of Clinical Team Leader and Manager State Operations, Clinical Support Paramedics (CSPs) have been introduced into the communication centre to provide 24/7 support to call takers, paramedics and volunteers on clinical issues which are unclear or ambiguous [Yes] iii. Structured call taking includes clinical determination of the nature and priority of patient condition, although call takers' discretion is removed. Any problems arising are to be dealt with after the call [Substantially] iv. Structured call taking includes structured clinical advice to callers and CSPs are available if more complex cases are identified and have capacity to escalate to rostered medical practitioners [Yes] v. SJA has implemented largely automated call prioritisation and dispatch, supported by auditing of calls and 24/7 monitoring of ambulance tasking by dispatchers [Yes].
3	Improve the response capacity of the SJA communication centre through: <ul style="list-style-type: none"> i. Increased staffing levels of call takers and other key communication centre personnel ii. A staff performance management and development program with individual plans for all officers iii. 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 iv. Examining the feasibility of splitting calls between '000' and other calls v. Considering the geographical split between metropolitan and country regions vi. Requesting SJA to remedy the 'freezing' of the Computer Aided Dispatch (CAD) network immediately vii. A quality audit of calls against specific standards and guidelines. 	Ongoing – by SJA <ul style="list-style-type: none"> i. There are increased numbers of call takers and other key communication centre personnel [Ongoing] ii. Performance management has been implemented and there is a standard development program but these are not individualised for call takers [Substantially] iii. Training and continuing education was reviewed as part of the implementation of structured call taking. No discretion is now exercised by call takers so training and continuing education is more focused on structured call taking requirements and SJA information technology systems [Yes] iv. Feasibility of splitting calls was considered but not implemented. SJA no longer considers it relevant because of other changes and targets being exceeded [Yes] v. There are no specialised country dispatchers, but there are metropolitan and country dispatch desks [Ongoing] vi. The indexing problem at the time of the Inquiry has been fixed. 'Locking' can still occur, to a lesser degree, but there is a dedicated CAD IT technician to deal with this [Ongoing] vii. Auditing of calls for compliance with structured call taking has been implemented [Yes].

Appendix 1: Have SJA and WA Health implemented the 2009 Inquiry recommendations?

No	Recommendation	Implementation
4	Investigate further the feasibility of introducing structured call taking in the communication centre.	Yes – some investigation of the feasibility of structured call taking was undertaken by SJA but no report is available. No agreement was reached between SJA and WA Health about its merits although it was implemented by SJA.
5	Invest in ambulance service infrastructure—both staff and capital—to ensure an appropriately responsive and sustainable service.	Yes – WA Health invested an additional \$100 million in SJA staff and capital in the four years following the Inquiry, with another \$40 million budgeted for 2013-14, based on SJA's funding submission. With this investment, SJA has recruited significant numbers of new staff and invested in physical infrastructure and technology. Because SJA is operating more efficiently it is currently meeting some, and almost meeting the rest of its metropolitan ambulance response time targets despite operating at lower than the standby capacity that was the basis for SJA's funding submission.
6	Ambulance needs in country areas to be the subject of further assessment.	Ongoing – further assessment was done by SJA, but no report is available. With increased WA Health funding, SJA increased paramedic resources, increased its support for volunteers and regionalised corporate support staff. More still needs to be done to strengthen the country service and ensure its sustainability.
7	Expand the existing continuing education program to enable all paramedics, transport officers and volunteers to have their skills updated.	Yes – SJA expanded the continuing education program for paramedics, transport officers and volunteers although the number of paramedics attending compulsory training declined in 2011.
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.	Ongoing – SJA has developed these clinical structures and processes and has commenced implementation. More is still to be done for clinical governance in country areas and through the implementation of long term recommendations identified by an external 2011 clinical governance audit.
9	SJA notify and report sentinel events to WA Health's Director Office of Safety and Quality in Healthcare.	Ongoing – SJA is notifying and reporting sentinel events, although in some country areas there are no processes to assist in the identification and reporting of possible sentinel events.
10	WA Health pursues, through the Australian Health Workforce Ministerial Council, the national registration of paramedics.	Ongoing – WA Health has done substantial work on pursuing registration although this is ultimately an issue for the Council who will make a determination once they receive and consider a regulatory impact statement, which is currently being developed.
11	Strengthen the capacity of the complaints system including a statement of principles, establishment of a helpline and online complaints registration.	Yes – SJA has done much to strengthen its complaints system. WA Health could do more to make sure its staff is aware of these changes.

Appendix 1: Have SJA and WA Health implemented the 2009 Inquiry recommendations?

No	Recommendation	Implementation
12	<p>During the implementation phase, further work to be undertaken in the following areas:</p> <p>Alternatives to Emergency Department attendance</p> <p>i. Strengthen the role played by healthdirect in the management of non-urgent Priority 3 calls</p> <p>Helicopter service</p> <p>ii. Review the tasking process to ensure that this resource is properly utilised</p> <p>iii. Examine in more detail the proposal of CareFlight to provide a critical care helicopter service to the Southwest Region</p> <p>Legislation</p> <p>iv. Pursue the implementation of State legislation to control the operations of the existing ambulance service</p> <p>Inter-Hospital Patient Transport (IHPT)</p> <p>v. Examine the separation of IHPT tasking from the emergency tasking process</p> <p>vi. Examine opportunities to streamline the current IHPT processes</p> <p>vii. Examine the possibility of a computerised IHPT tasking function.</p>	<p>Ongoing – further work was done by SJA and WA Health but with mixed results:</p> <p>Alternatives to Emergency Department attendance</p> <p>i. SJA strengthened the role played by healthdirect but 13 per cent of calls are sent back to SJA [Ongoing]</p> <p>Helicopter service</p> <p>ii. SJA (with others) reviewed tasking but categorisation of calls and agency responsibility remains problematic [Ongoing]</p> <p>iii. WA Health has identified a process to determine whether any additional helicopter services are needed [Ongoing]</p> <p>Legislation</p> <p>iv. WA Health pursued the implementation of State legislation but this was not supported by the Department of Treasury's Regulation Gatekeeping Unit which prefers the development of contracted standards. Contracted standards are to be developed and implemented for future contracts with ambulance service providers [Ongoing]</p> <p>Inter-Hospital Patient Transport (IHPT)</p> <p>v.-vii. Work was done in this area by WA Health but no outcome was achieved [All ongoing].</p>
13	<p>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.</p>	<p>Substantially – Government appointed the Inquiry Chairperson as implementation chairperson to oversee the implementation of all Inquiry recommendations and we have the 12 month report to the Minister ('the implementation report').</p>

Source: Recommendations taken from the Inquiry Report, pp.7-10, 22.

Auditor General's Reports

REPORT NUMBER	2013 REPORTS	DATE TABLED
4	Audit Results Report - Annual Assurance Audits: Universities and state training providers and Other audits completed since 29 October 2012 – and Across Government Benchmarking Audits: Recording, custody and disposal of portable and attractive assets and Control of funds held for specific purposes	15 May 2013
3	Management of Injured Workers in the Public Sector	8 May 2013
2	Follow-on Performance Audit to 'Room to Move: Improving the Cost Efficiency of Government Office Space'	17 April 2013
1	Management of the Rail Freight Network Lease: Twelve Years Down the Track	3 January 2013
	2012 REPORTS	
15	Managing the Road Trauma Trust Account	14 November 2012
14	Audit Results Report – Annual 2011-12 Assurance Audits and Across Government Benchmarking Audits: Agency Gift Registers; and Non-Payroll EFT Payments to Employees	7 November 2012
13	Implementation of the National Partnership Agreement on Homelessness in Western Australia	24 October 2012
12	Major Capital Projects	17 October 2012
11	Second Public Sector Performance Report 2012 <ul style="list-style-type: none"> – Business Continuity Management by Port Authorities – Western Australian Natural Disaster Relief and Recovery Funding – Housing's Implementation of the Head Contractor Maintenance Model 	26 September 2012
10	Information Systems Audit Report	28 June 2012
9	Public Sector Performance Report 2012 <ul style="list-style-type: none"> – Regional Procurement – Department of Commerce Support to the Plumbers Licensing Board – Ministerial decision not to provide information to Parliament on the amount of funding tourism WA provided for the Perth International Arts Festival 	28 June 2012
8	New Recruits in the Western Australia Police	20 June 2012
7	Pharmaceuticals: Purchase and Management of Pharmaceuticals in Public Hospitals	13 June 2012
6	Victim Support Service: Providing assistance to victims of crime	16 May 2012
5	Audit Results Report – Annual Assurance Audits completed since 31 October 2011 including universities and state training providers and Across Government Benchmarking Audits: Accuracy of Leave Records; Act of Grace and Like Payments; and Supplier Master Files	16 May 2012
4	Supporting Aboriginal Students in Training	2 May 2012
3	Beyond Compliance: Reporting and managing KPIs in the public sector	19 April 2012
2	Opinion on Ministerial decisions not to provide information to Parliament on the amount of funding Tourism WA provided for some events	22 February 2012
1	Working Together: Management of Partnerships with Volunteers	22 February 2012

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