

THE MANAGEMENT AND OPERATIONS OF THE NSW AMBULANCE SERVICE

Organisation: NSW Department of Health
Name: Prof Debora Picone
Position: Director General
Telephone: 9391 9000
Date received: 4/07/2008

Submission to the Legislative Council,
General Purpose Standing Committee
No.2

The Management and Operations of the
Ambulance Service of NSW

July 2008

Contact details

NSW DEPARTMENT OF HEALTH
73 Miller Street
North Sydney NSW 2060
Tel. (02) 9424 5865
Fax. (02) 9424 5715
Email. esumail@doh.health.nsw.gov.au
www.health.nsw.gov.au

Copyright information

This work is copyright. It may be reproduced in whole or part for study or training purposes subject to the inclusion of an acknowledgment of the source.

It may not be reproduced for commercial usage or sale. Reproduction for purposes other than those indicated above, requires written permission from the NSW Department of Health.

© NSW Department of Health 2008

Disclaimer

Content within this submission was accurate at the time of submission.

Submission date

July 2008

Table of Contents

List of Figures	iii
Executive Summary	v
1 Overview of the Ambulance Service	1
1.1 Emergency and Non-Emergency Patient Treatment and Transport	1
1.2 000 Call Centres	2
1.3 Counter Disaster Planning and Preparation	2
1.4 Air Ambulance and the Medical Retrieval Unit	2
1.5 Education and Training of Paramedics	3
1.6 Rescue Services	3
1.7 Ambulance Asset Strategic Plan	4
2 Overview of Operating Environment	5
2.1 Growth in Activity	5
2.2 Emergency and Non-Emergency Incidents	6
2.3 Factors Driving Demand	9
2.4 Procedures for Patients Not Transported	11
2.5 Utilisation Rates	11
2.6 Performance	12
3 Staffing	14
3.1 Rural Enhancement	14
3.2 Sydney Staffing Enhancements	15
3.2 Staff Attrition	15
4 Financial Efficiency	16
5 Governance and Management	17
5.1 History	17
5.2 Current Management Structure	17
5.3 Operational Management	18
5.4 Frontline Management	18
5.5 Management Development	19
5.6 Management Reporting	20
6 Staff: Conflict, Grievance, Bullying, Harassment	21
6.1 Grievance Management	21
6.2 New approach to Managing Grievances	24
6.3 Bullying and Harassment	24
6.4 NSW Health Code of Conduct	27
6.5 Communication and Staff engagement	27
7 Occupational Health and Safety – Policies and Management	29
7.1 Reducing the Risk of Manual Handling Injuries	30
7.2 Reducing the Risk of Psychological Injuries	30
7.3 Reducing the Risks Associated with Fatigue	32
7.4 Reducing the Risks of Infection and Illness	33
7.5 Reducing the Risk from Asbestos	33
7.6 Improving Vehicle Safety	34
7.7 Reducing the Risk of Vehicle Accidents	34
8 Demand Management and Efficiency Improvement Strategies	36
8.1 Recent Strategies to Manage Demand	36
8.2 New Service Delivery Models	38
8.3 Future Directions	40

9	Legislative Arrangements	46
9.1	Current Situation	46
9.2	Experience in Other States	46
Appendices		
1	Review of the Ambulance Service of NSW. Report to the Minister for Health, June 2008	47

List of Figures

Figure 1: Total Incidents NSW	5
Figure 2: Emergency Incidents	6
Figure 3: Emergency and non emergency incidents	6
Figure 4: Comparative Demand Trends - Emergency and Urgent Incidents	7
Figure 5: Emergency and Urgent Incidents per 100,000 persons	8
Figure 6: Non-Emergency Incidents per 100,000 persons	8
Figure 7: Utilisation rate for Sydney emergency ambulances in 2006/2007	12
Figure 8: Utilisation rate for emergency ambulances Capital Cities for 2006/2007	12
Figure 9: Comparative Response Times for Emergency Code 1 cases 50 th percentile	13
Figure 10: Jurisdictional Staffing Comparison	14
Figure 11: Allocation of Rural & Regional Enhancements, 2003 to 2007	14
Figure 12: Attrition in the Financial Years 1999 to 2006 for Paramedics	15
Figure 13: Expenditure by NSW, Queensland and Victorian Ambulance Services per 1000 Persons	16
Figure 14: Major Source of Revenue per Jurisdiction	16
Figure 15: Executive and Operational Management Staff Number Comparison	18
Figure 16: Psychological claims numbers	31
Figure 17: Projection of potential reduction in ambulance patients conveyed to EDs	39

Executive Summary

On 15 May 2008, a Legislative Council inquiry was established to report on the management and operations of the NSW Ambulance Service. The inquiry is being conducted by the General Purpose Standing Committee No.2 with the following terms of reference:

That the General Purpose Standing Committee No.2 inquire into and report on the management and operations of the NSW Ambulance Service, and in particular:

- (a) management structure and staff responsibilities;*
- (b) staff recruitment, training and retention;*
- (c) staff occupational health and safety issues;*
- (d) operational health and safety issues; and*
- (e) any other related matter.*

The following submission has been prepared on behalf of NSW Health.

NSW has a highly skilled and respected Ambulance Service workforce.

The Service has been undergoing a transformation over the past ten years moving from a highly traditional ambulance provider to a modern emergency healthcare service complete with advanced operations centres and qualified paramedics that have clinical capabilities among the best in the world. While these rapid and extensive changes have been enthusiastically embraced by the majority of the 3,700 strong workforce, there is more that can and should be done to support these highly valued staff as the Service moves into the future.

The Ambulance Service is an integral part of the NSW health system providing emergency pre-hospital care and transport, medical retrieval and health transport services. The Ambulance Service employs over 3,700 people at 291 locations and delivers services to 6.9 million people¹: making it one of the largest ambulance services in the world. There have been substantial organisational reforms in recent years and NSW paramedics have embraced a range of new clinical skills and interventions. In recognition of the ongoing concerns in the Ambulance Service, further reform of work practices is planned to give front-line Ambulance Service managers the flexibility to match resources to demand and the skills to manage a diverse and dispersed group of clinicians and technical practitioners.

Between 2001 and 2007, a number of reviews have been undertaken into the NSW Ambulance Service. Importantly, these have led to progressive improvement in the way ambulance services are provided.

In September 2007, the Minister for Health announced a review to consider the operational and management systems of the Ambulance Service, examine funding and infrastructure, previous reviews and audits, clinical services, demand management, work and management practices, change in policy and practice, and to recommend any changes that would improve the ability of the Ambulance Service to respond to demand and ensure an appropriate level of clinical service.

¹ Australian Bureau of Statistics, *Australian Demographic Statistics, December 2007* (NSW Population), June 2008,

The *Review of the Ambulance Service of NSW. Report to the Minister for Health* (referred to as the 2008 Review) is attached at Appendix 1. The report makes 27 recommendations under the headings of streamlining operations to manage demand growth, working with the community, improving culture and staff morale, strengthening governance and business systems, and strengthening and focusing the workforce.

The NSW Government has accepted 26 of these recommendations for implementation. A recommendation to transfer the rescue function of the Ambulance Service to the Fire Brigade will be given further consideration. It is expected that significant milestones on each of the agreed recommendations will be achieved over the next 12 months.

NSW Health considers that a focus on the areas recommended by the 2008 Review and outlined in this submission will help to overcome impediments and address issues faced by the Ambulance Service, as well as result in changes that improve the service provided to the community and the environment in which ambulance service staff work.

- Focusing resources on the area of greatest need and improving the efficiency of operational deployments will ensure the Ambulance Service's responsiveness to emergencies and patient care continues to be of world class standard. Working towards fully tiered services will have a significant impact in this area, as will infrastructure developments and ongoing monitoring and improvements to dispatching procedures where require
- The drivers of Ambulance Service demand will be identified and analysed through a proposed national study that NSW will put forward to the Council of Ambulance Authorities. If progressed, this could result in new demand management strategies that build on those already underway in NSW.
- The accountability of the Ambulance Service will benefit from improvements in performance reporting, externally and internally. Information on clinical and operational indicators will ensure the public and the Service can review levels of service delivery and make improvements as required.
- Through planned community education campaigns, the public will be better informed about the role of the Ambulance Service, and its effective and appropriate use.
- The Ambulance Service continues to work on the important issues of concern to staff, including bullying and harassment in the workplace, and has introduced clear policies and procedures in an attempt to address these issues. This will continue to be a priority for the Service with a focus on clarifying the rights and responsibilities of staff in relation to engagement with patients and colleagues, mandatory education, improved staff support services and strong processes to respond to unacceptable behaviour.
- Already the Ambulance Service has commenced reviewing internal policies, practices and training to build on a resilient and resourceful workplace culture and ensure a healthy and respectful workplace. Improved implementation of policies and procedures will enable identification and action when staff raise concerns or report inappropriate behaviour. The strategies outlined in section 6 of this submission aim to facilitate a safe and harmonious working environment for all Ambulance staff.

Continued improvements in work practice, rostering arrangements, front line supervision, support and communications for paramedics in the field, clinical practice and upgrading of ambulance stations will improve staff morale and enhance patient care.

Recruitment, training and education, and management development strategies will strengthen supervision within the Service. Strong and responsive management and leadership at the local and executive level will improve support for staff and the work environment.

- The planned review of corporate services will ensure excellent systems are in place to ensure that the Ambulance Service has a high level of safe and effective patient care and reduced administrative burden
- The work already undertaken to strengthen the role of paramedics will continue with a review of the vocational induction course and accreditation of a tertiary program. Both the roles of existing and new recruits will benefit from these improvements.
- Efforts to improve the relationship between the Ambulance Service and the Health Service Union will lead to better support for staff through job satisfaction and ongoing improvements to the safety and welfare of staff, and will ensure the priorities outlined in this submission can be progressed.

Considerable progress has been made by the Ambulance Service in relation to a number of areas of reform, in particular organisational reforms. The significant work outlined in this submission to continue organisational reform and address workforce, corporate, educational and promotional issues will ensure that the Ambulance Service can continue to provide quality health services into the future.

Structure of the Submission

This submission sets out the operating environment of the Ambulance Service of NSW and describes strategies designed to manage the increasing demand for ambulance services and improve the workplace for ambulance staff. These strategies focus on key operational areas that are essential to achieving performance targets and appropriate clinical outcomes, in addition to strategies that strengthen the workforce in terms of operations, culture and morale. Comparisons with ambulance services in other jurisdictions have been provided where appropriate.

The submission and the attached 2008 Review provide:

- an overview of the services provided by the Ambulance Service;
- analysis of current demand for services and the continuing increase in the number of emergency and non emergency incidents, and the capacity of the Service to manage demand and maintain current performance;
- current staffing arrangements, numbers of clinical and administrative staff, the impact of enhancements on staff numbers in rural and metropolitan areas, and current attrition rates and trends;
- comparison of ambulance expenditure with other ambulance services in Australia;
- capital and asset management outline including fleet, equipment, ambulance stations and operations centres;
- information about management history, structure, reporting arrangements and development programs;
- management of staff grievances and bullying and harassment;
- an overview of occupational health and safety issues;
- discussion on clinical developments and governance arrangements;
- strategies for managing demand, improving efficiency and investment; and
- the existing legislative base for ambulance services in NSW and elsewhere.

Throughout the submission are outlined the next steps that the Ambulance Service is committed to take to continue positive change, particularly in relation to operational management and its support and supervision of staff.

1 Overview of the Ambulance Service

The Ambulance Service of NSW²

- **Is called for assistance every 30 seconds**
 - **Is one of the largest ambulance services in the world**
 - **Provides over 1 million responses each year, 785,000³ for emergencies**
 - **Has experienced 8 per cent increase in demand each year since 2002-03**
 - **Provides quality clinical care and transport services for 6.9 million people across 801,600 square kilometres**
 - **Rates 97% patient satisfaction in Annual Surveys**
 - **Employs more than 3,700 staff in 291 locations across NSW with 130 honorary ambulance officers volunteering**
 - **Has 90% front line staffing - more than any other service in Australia**
 - **Provides early intervention for colleagues who may experience stress from traumatic workplace incidents through more than 100 Peer Support Officers**
 - **Provides volunteer individual counselling, pastoral care and spiritual support to employees, patients and their families through 15 Chaplains**
 - **Maintains 938 ambulances, 365 support vehicles, 3 motorbikes, 4 aircraft, 9 helicopters and 5 specialist over snow vehicles.**
-

1.1 Emergency and Non Emergency Patient Treatment and Transport

Emergency responses and emergency patient transports arise from “000” emergency calls. In 2006/07 the Ambulance Service responded to 634,492 emergency incidents.

Most emergency cases are attended by an ambulance crew of two paramedics. However, increasing use is being made of Rapid Response Units with a single paramedic able to provide urgent treatment prior to the arrival of an ambulance or determine that an ambulance is not required.

Approximately 25% of emergency incidents do not result in the transport of a patient.

Non-emergency patient transports are scheduled patient transfers between hospitals or health facilities and out-patient appointments that have been authorised by a doctor as requiring ambulance transport. There were 246,000 non-emergency transports of patients in 2006/07. Demand for these services exceeds the capacity of the Patient Transport Service and emergency ambulances are transporting approximately 50% of Ambulance Service non-emergency patients in Sydney. The Patient Transport Service uses vehicles with a crew of two patient transport officers which are able to transport up to two patients on stretchers. In rural areas emergency ambulances are used for all Ambulance Service non-emergency transports. This reduces the availability of ambulances to respond to emergency calls.

In order to ensure that resources are focused on the areas of greatest need, NSW Health will undertake a review of non emergency patient transport. This is outlined further at 8.3.1. Recommendations on an optimum service model and implementation approach will be provided by mid 2009.

² 2006/07

³ An ambulance response is a vehicle or vehicles sent to an incident. There may be multiple responses/vehicles sent to a single incident.

1.2 000 Call Centres

All "000" calls for ambulances go to operations centres in Sydney, Newcastle, Wollongong and Dubbo from where all responses for the State are coordinated. The introduction of a computer aided dispatch system in 1998 created efficiencies which enabled a reduction of operations centres from eleven to four. Technological advances currently being implemented by the Ambulance Service will provide further opportunities to consolidate and streamline operations centres by 2010.

1.3 Counter Disaster Planning and Preparation

Mass casualty events are fortunately rare occurrences. The Ambulance Service maintains a high state of readiness to respond to disasters involving large numbers of casualties arising from natural catastrophes or deliberate action. Relevant operational plans include specialist skills and equipment (for example: for incidents involving chemical, biological or radiological contaminants) and coordination of response actions across emergency services and health agencies.

The Ambulance Service is also responsible for the NSW Health Counter Disaster Unit which coordinates disaster response plans and emergency response exercises across Area Health Services through the network of "Health Service Functional Area Co-ordinators" and the NSW Health Emergency Management Committee chaired by the Director General.

1.4 Air Ambulance and the Medical Retrieval Unit

The Aeromedical Division provides and coordinates ambulance aeromedical and medical retrieval services on a state-wide basis. In 2006/07 5,950 patients were transported by the air ambulance fixed wing aircraft and 3,213 by emergency medical services helicopters.

More than half of the missions carried out by the Ambulance Service emergency medical services helicopters involve moving critically ill patients from regional hospitals to tertiary hospitals. The doctors and paramedics provide intensive patient care during the transfer and are an essential link in the state-wide critical care service. Ambulance medical consultants advise doctors and nurses in remote and rural areas by video-link or telephone on the transfer of critically ill patients and also locate ICU beds for patients being transferred.

These doctor and paramedic teams are also dispatched for serious trauma patients using helicopters or road ambulances. In total there were 10,403 medical retrievals undertaken in 2006/07.

Helicopter capacity was recently upgraded with a new contract for the Greater Sydney area and renewal of existing contracts for Newcastle, Tamworth, Lismore and Canberra. All Ambulance emergency medical services helicopters and aeroplanes are provided through commercial contracts with operational control and clinical crew provided by the Ambulance Service.

Sponsorship for the new Greater Sydney Metropolitan Rotary Service (Sydney, Wollongong and Orange) is currently under review and tenders for new sponsorship arrangements will be sought in the next nine months.

Ambulance aeroplanes staffed by doctors and flight nurses are also used for inter-hospital transfers of critically ill patients in rural locations to specialised care in tertiary hospitals.

The commercial contract for fixed wing services will expire in 2010 with an option exercisable by Ambulance to 2011. The Ambulance Service is completing detailed planning for the future service needs following a review of the aeromedical fixed wing services. Demand for fixed wing transfer of critically ill patients exceeds current supply and is expected to grow significantly over the next five years.

The new fixed wing contract will aim to provide an additional aircraft and the option of some larger aircraft to accommodate heavy patients and additional medical equipment. The Metropolitan Ambulance Service, Victoria is at a similar stage for contract renewal for Victorian Air Ambulances and the option for a joint tender to improve interoperability and economies of scale is being developed with them. The Procurement Strategy was approved at the June State Contracts Control Board Meeting. The Strategy targets contract Award in mid 2009 to allow time for acquisition and transition to the new aircraft.

Planning has also commenced to determine the need for an additional emergency medical helicopter for northern NSW. The analysis will be undertaken by NSW Health and is expected to be completed in 2008.

1.5 Education and Training for Paramedics

Most paramedics are currently trained by the Ambulance Service on a three year diploma or a one year accelerated graduate entry program.

The Ambulance Service operates an Education Centre at Rozelle and regional training units across the State. The Education Centre provides core training to new paramedics and ongoing professional development training in operational practice for qualified paramedics. Paramedics are required to re-certify every three years. Skills are also constantly updated as the evidence base for protocols and pharmacology change.

Specialist qualifications are also provided for Intensive Care Paramedics, Special Casualty Access Teams (SCAT), Rescue and the recently introduced Extended Care Paramedics. Training is provided using a range of teaching methods including face-to-face components, on-line courses and in-field supervision and support.

Regional training units enable paramedics to undertake skill upgrades without travelling to Rozelle; regional trainers also support clinical development and provide on-the-ground training and support to paramedics.

The Education Centre also provides four week training courses for patient transport officers. Future educational needs are discussed later in this submission.

It is recognised that capital investment is required to upgrade the Rozelle Education Centre and to replace the training facilities currently shared on the Rozelle Campus and having to be vacated by 2013/14. This is dealt with in the Ambulance Service Asset Strategic Plan as set out in Section 1.7.

1.6 Rescue Services

Rescue services involve the safe removal of persons or domestic animals from actual or threatened danger of physical harm. An example would be releasing an accident victim trapped in a motor vehicle.

Responsibility for rescue services is currently shared between Ambulance, Fire, Police, the Volunteer Rescue Association and the State Emergency Service. The Ambulance Service operates 14 of the 197 primary accredited rescue units in NSW.

Ambulance Service rescue units responded to a total of 20,000 incidents in 2006/2007. Of these, some 2,700 were responses to rescue missions and 17,300 were medical responses to emergency ambulance cases.

The issue of ambulance contribution to rescue services has been raised and reviewed from time to time by the Ambulance Service and by external reviews.

The Auditor General's report of the Ambulance Service, "Readiness to Respond", in 2001 recommended that the Service reconsider its role in rescue. In 2005 the Auditor General

completed a performance audit on the coordination of rescue services and made a number of recommendations, which were accepted by the State Rescue Board. The Board is currently working on improving data quality and planning standards across the state with a view to strengthening planning and decision making processes over rescue coverage and efficiency.

Similarly, the 2008 Review recommends that the Ambulance Service rescue functions should be transferred to NSW Fire Brigade. While the 2008 Review makes a strong case for transfer to the NSW Fire Brigades, the NSW Government will consider this recommendation and continue to work with stakeholders before taking any final decision.

1.7 Ambulance Asset Strategic Plan

The Ambulance Service and all Area Health Services were requested to provide updated Asset Strategic Plans in mid 2008. These are used to inform the revision of the 10 Year NSW Health Capital Investment Strategic Plan.

The highest priority Ambulance Capital investments are:

- Sydney Infrastructure Strategy
- Rural Stations upgrade program
- Fleet Replacement program
- Medical Equipment and ICT upgrade program
- State Head Quarters and Education and Training Centre.

2 Overview of Operating Environment

2.1 Growth in Activity

Growth in ambulance service demand and activity can be measured in a number of ways.

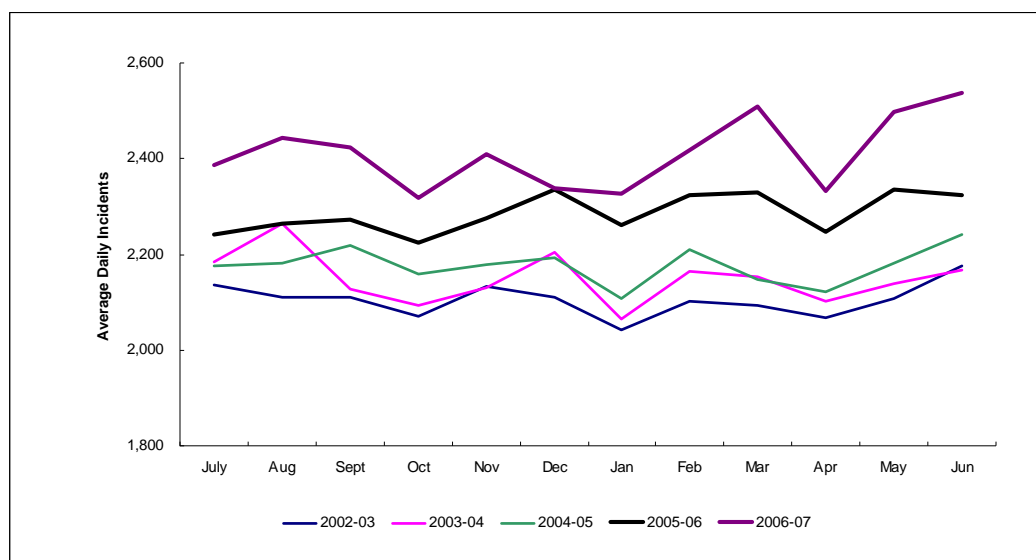
These include:

- growth in calls;
- growth in incidents;
- growth in responses; and
- growth in transports.

The main measures used by the Ambulance Service are incidents and responses.

Incidents are calls to a specific location for ambulance assistance or treatment. In 2006/07 the Ambulance Service responded to 880,215 incidents of which 634,492 were emergency incidents requiring an immediate response.

Figure 1: Total Incidents NSW



Source: Ambulance Service of NSW

A response involves an individual ambulance resource being sent to an incident. The Ambulance Service provided over 1,052,000 responses (emergency and non-emergency) which is an average of 2,885 responses each day. The number of responses exceeds the number of incidents because more than one ambulance may attend an incident or rapid responder vehicles may be used in advance of an ambulance.

Total incidents include emergency incidents from “000”, and scheduled transports booked by general practitioners and hospitals (non-emergency incidents).

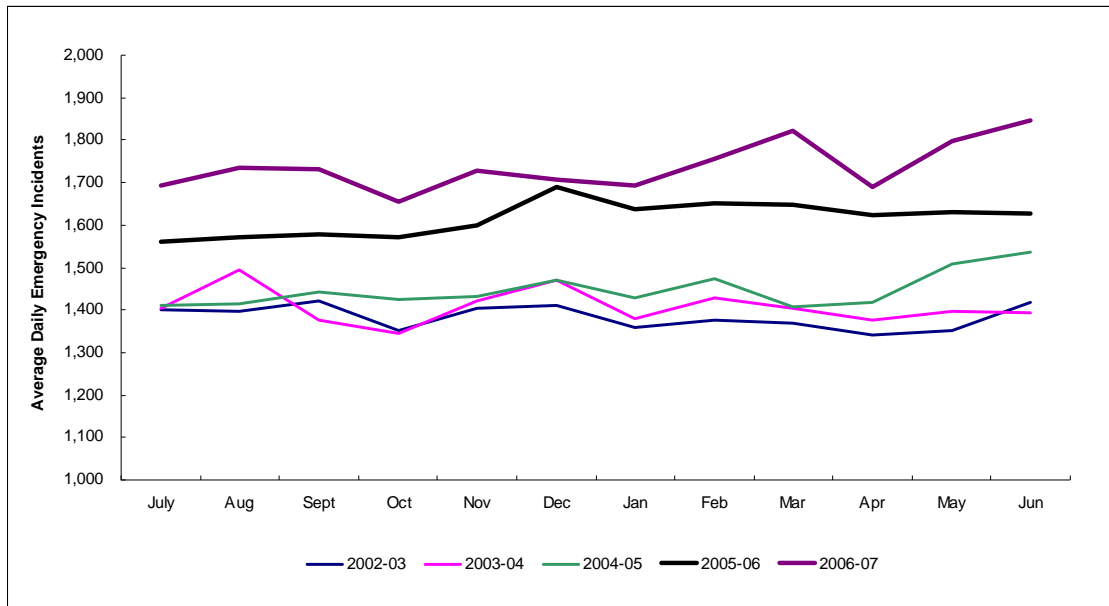
The Ambulance Service has experienced continual growth in demand over the last five years. Demand growth within the Sydney Division was significantly higher in 2006/07 than in previous years.

2.2 Emergency and Non-Emergency Incidents

Demand for emergency ambulance responses is increasing across NSW. The number of emergency incidents increased by 16% in 2006/2007 over the previous year. Emergency incidents are growing faster than non-emergency incidents. Non-emergency incidents decreased in 2006/2007 for the first time however are increasing again in 2007/2008.

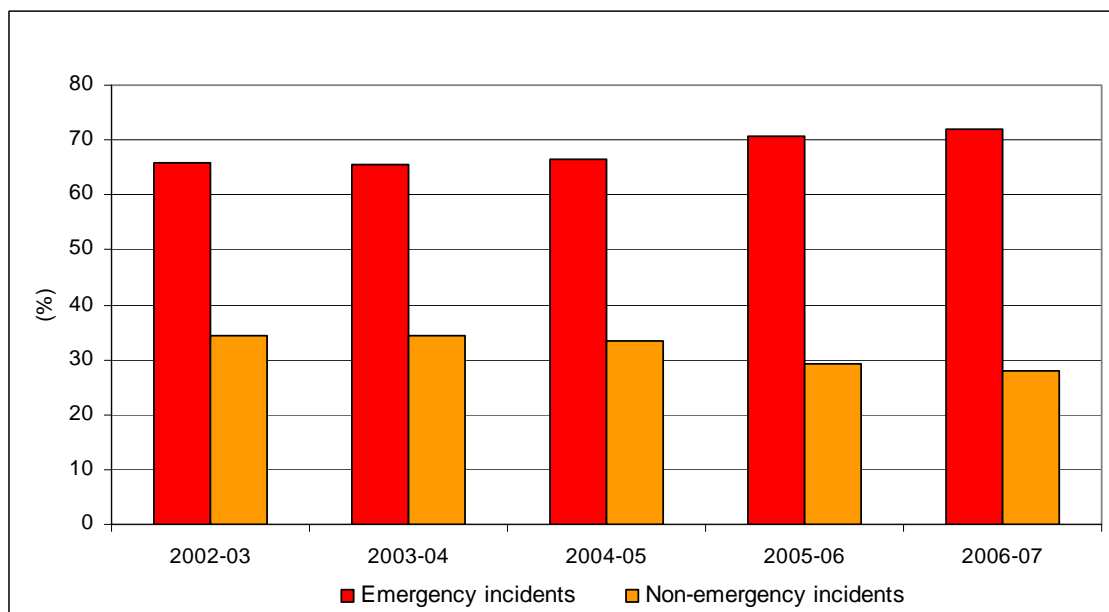
There are seasonal peaks in demand with winter being the period of greatest demand.

Figure 2: Emergency Incidents



Source: Ambulance Service of NSW

Figure 3: Emergency and Non-Emergency Incidents in NSW



Source: Ambulance Service of NSW

The current trends in emergency and urgent demand in NSW are similar to that being experienced in other jurisdictions. Table 4 shows the trend over the last five years for emergency and urgent incidents.

Figure 4: Comparative Demand Trends - Emergency and Urgent Incidents^{4, 5}

	NSW ⁶	VIC ⁷	QLD	WA ⁸	SA ⁹	Tas	ACT	NT
2002-03	505,000	316,000	339,000	78,000	133,000	35,000	19,000	17,000
2003-04	515,000	327,000	367,000	82,000	136,000	42,000	19,000	na
2004-05	528,000	334,000	398,000	82,000	139,000	40,000	18,000	na
2005-06	590,000	358,000	431,000	84,000	149,000	47,000	22,000	na
2006-07	634,000	390,000	475,000	86,000	157,000	49,000	23,000	na

Source: Report on Government Services 2008 – Emergency Management

Demand for emergency and urgent incidents in NSW has increased over the past five years by 25.7%. Over the last two years demand has grown by an average of 9.7% per annum.

Over the past five years, the NSW rate of emergency and urgent incidents per 100,000 people has increased by 21.9%.

⁴ In this submission “emergency incidents” refers to all ambulance incidents arising from a “000” call which includes potentially life-threatening calls responded to under lights and sirens, and “000” incidents allocated a response under normal driving conditions. The terms “emergency and urgent” are used by the CAA to describe this group of cases.

⁵ An incident is an event that results in a demand for ambulance resources to respond. An ambulance response is a vehicle or vehicles sent to an incident. There may be multiple responses/vehicles sent to a single incident. A patient is someone assessed, treated or transported by the ambulance service.

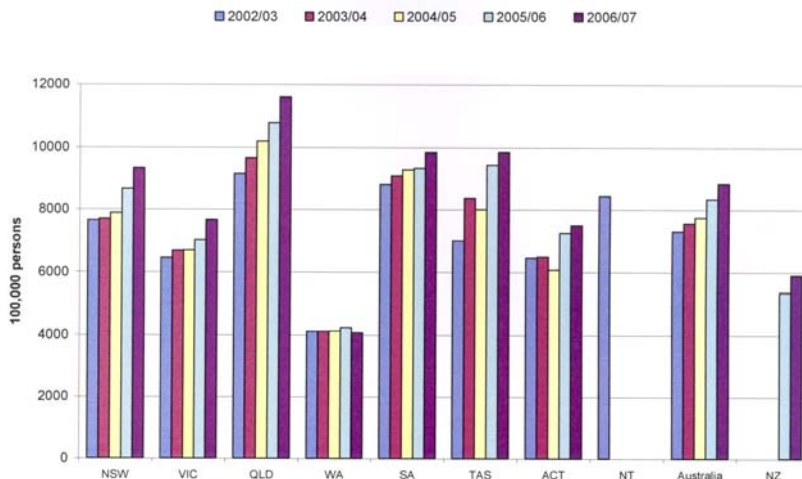
⁶ Prior to 2005/06, NSW did not triage emergency calls. Urgent incident and response caseload are included in emergency caseload figures. In 2005/06, the introduction of medical prioritisation has allowed for the separation of emergency and urgent activity.

⁷ In Victoria, Metropolitan Ambulance Service: incidents, responses and patients transported include road incidents only. In 2006/07 there were 4,544 fixed wing ambulance incidents and 1,682 rotary wing.

⁸ WA does not have a policy of automatically dispatching more than one unit to an incident unless advised of more than one patient. Separate statistics are not kept for incidents and responses. Numbers shown under incidents are cases.

⁹ For SA, prior to 2006/07 incidents, responses, and patient data was based on patient case cards. Incidents, responses and patient data for 2006/07 is extracted from South Australian Ambulance Computer Aided Dispatch data and is more aligned to the definitions provided by the CAA. As a result in some areas the data is not directly comparable with prior years.

Figure 5: Emergency and Urgent Incidents per 100,000 persons



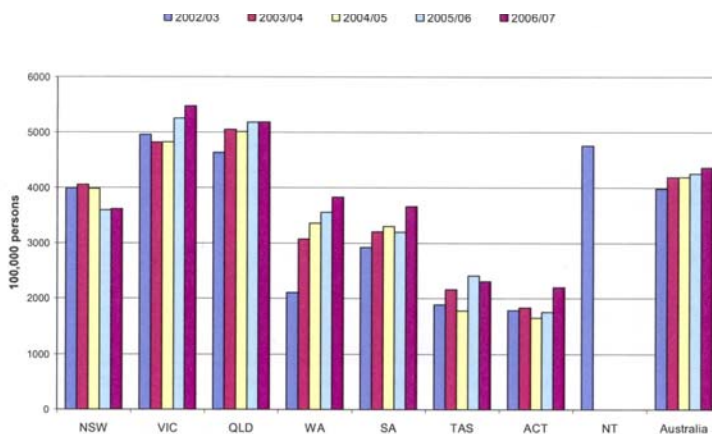
Jurisdiction	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Australia	NZ
2002/03	7650	6439	9154	4109	8824	7004	6447	8429	7228	na
2003/04	7691	6677	9665	4111	9095	8362	6484	na	7486	na
2004/05	7877	6690	10186	4126	9290	8001	6073	na	7660	na
2005/06	8675	7016	10781	4224	9328	9439	7247	na	8243	5354
2006/07	9331	7658	11594	4073	9850	9856	7497	na	8769	5897
% change										
1 year	7.6%	9.2%	7.5%	-3.6%	5.6%	4.4%	3.4%	na	6.4%	10.1%
5 year	22.0%	18.9%	26.6%	-0.9%	11.6%	40.7%	16.3%	na	21.3%	na

Australian totals exclude NT

Source: *The Council of Ambulance Authorities – 2006/07 Annual Report*

Non-emergency demand in NSW decreased by 9.4% over the last five years however there has been an increase during 2007/2008. Non-emergency demand is also increasing in other Australian jurisdictions.

Figure 6: Non-Emergency Incidents per 100,000 persons



Jurisdiction	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Australia
2002/03	3989	4955	4635	2102	2920	1881	1783	4757	3980
2003/04	4054	4815	5048	3071	3204	2157	1828	na	4189
2004/05	3980	4820	5010	3356	3303	1776	1645	na	4189
2005/06	3596	5254	5180	3557	3195	2407	1750	na	4254
2006/07	3614	5475	5186	3828	3659	2299	2199	na	4364
% change									
1 year	0.5%	4.2%	0.1%	7.6%	14.5%	-4.5%	25.6%	na	2.6%
5 year	-9.4%	10.5%	11.9%	82.2%	25.3%	22.2%	23.3%	na	9.7%

Australian totals exclude NT

Source: *The Council of Ambulance Authorities – 2006/07 Annual Report*

Non-emergency transports by the Ambulance Service include critical care retrievals for patients in need of specialist intervention and more routine transports of patients between hospitals who require monitoring or treatment en-route. Non-emergency patient transports are important to patient flow across the hospital system and assist in reducing off-stretcher times in emergency departments. As outlined earlier, approximately half of all non-emergency transports in NSW were undertaken by emergency ambulances despite increases to the resource base of the Patient Transport Service. Using emergency vehicles for non-emergency work reduces emergency capacity which increases response times for emergency cases.

In New South Wales, Area Health Services also operate non-emergency patient transport services which reduce demand for non-emergency services provided by the Ambulance Service during normal business hours. This may account for the relatively steady demand on Ambulances for non-emergency services in the past few years.

Most modern developed ambulance services have improved emergency and non-emergency performance by completely separating ambulance operations into non-emergency and emergency tiers.

As part of the 2008 Review, the Service, in conjunction with the Operational Research in Health (ORH) consultants, has investigated alternative means of managing non-emergency workload including tiered operations. ORH recommends implementation of a strict tiering structure within the Sydney Division to improve emergency and non-emergency response performance.

Future reforms in this area are discussed later in this submission.

2.3 Factors Driving Demand

Increasing demand for services is a health system wide trend. The impact of increasing demand is being felt in emergency departments through congestion with patients waiting for advanced diagnostic services or admission to hospital wards. A number of studies have been undertaken to identify the factors that are driving demand for health services.

2.3.1 Health System Demand

An indication of the increasing demand for health services is demonstrated by the increase in demand being experienced in emergency departments. The current annual growth in demand across emergency departments is 6.9% pa.

A review of presentations to emergency departments, prepared by Booz, Allen and Hamilton in December 2007 for NSW Health, highlighted that between 2004/05 and 2006/07 the number of emergency department attendances increased from 1.5m to 1.7m, the equivalent of 6.9% compound annual growth rate.

The proportion of the population using emergency departments has increased from 26% in 2004/05 to 30% of the population in 2006/07. It had been strongly felt that emergency department demand was linked to the aging population with the over-55 years group making up 43% of triage cat 1 (most serious cases) and only 21% of triage cat 5 (least serious). Booz, Allen and Hamilton highlight that the under-25 years patients make up 25% of triage category 1 and 40 % of triage category 5. This indicates a strong trend towards the younger age group increasing demand on emergency department services.

The study by Booz, Allen and Hamilton drew the following conclusions about demand on emergency departments:

- A small proportion of growth in emergency department demand can be attributed to growth in population. The aging of the population is reflective in the increase in emergency department presentations. Although the study highlights that younger presentations are increasing faster than the older patient group.
- Changing patient morbidity and the increases of chronic illness in the community increases the number of patients who require on going health care.
- Patients are generally better informed and investigate their health issues to a greater degree. This leads to an increase in the demand for services.
- There is an increase in the number of patients by-passing GPs in preference of the emergency department which is seen as a one stop shop of health care.
- Improvements in population health campaigns have meant that patients are now more aware of a greater variety of health conditions and actively seek emergency department care earlier.

2.3.2 Ambulance Demand

Ambulance demand for emergency incidents is also following the trend of the wider health system with demand growing at an average of 9.7% per annum. Ambulance demand is significantly exceeding population growth in NSW, which has averaged 1.1% per annum since 1995/96.

The health care needs of the ageing population are also reflected in ambulance demand with the over 65 age group accounting for 50% of all transports.

With the exception of demographic changes, little data is available to estimate the relative impact that other factors may have on ambulance demand. Nevertheless, research undertaken by the Council of Ambulance Authorities, confirms that the experience within the wider health system in relation to demand being affected by population changes is also being experienced by ambulance services. The demographic change, although significant, accounts for only about one fifth of increased demand for ambulance services.

Other drivers of demand for ambulance services include:

- social factors – such as increased numbers of people living alone and fewer family support structures;
- accessibility of general practice and alternative services - particularly out of hours and in rural and remote locations, including the extent to which general practitioners will bulk bill patients;
- changes in medical practice and patient management - such as the management of acute episodes of care for the chronically ill living at home;
- community expectations - including awareness of early intervention benefits; and
- hospital trends such as:
 - increased hospital throughput reflecting reduced length of stay;
 - increased day surgery and outpatient activity;
 - hospital in the home programs;
 - specialisation of service provision; and
 - increased emphasis on community-based care.

In line with a recommendation of the 2008 Review, the Ambulance Service will expand tiering of its services as a means of focusing resources on the greatest need as a priority.

2.3.3 Research into the Drivers of Demand

The Council of Ambulance Authorities is a peak body that meets to discuss and share information on the future direction of ambulance activity in Australia, as well as New Zealand and Papua New Guinea. The Council next meets on 10 July 2008.

In response to increasing demand for services, NSW intends to propose that the Council support a study to analyse the factors beyond demographic changes that are driving increased demand for Ambulance Services. It will be recommended that the study be undertaken in close collaboration with state health departments and other key stakeholders to analyse the issues and develop appropriate demand management strategies.

If progressed, NSW will consider the results in conjunction with the ongoing analysis by NSW Health of the drivers for demand on emergency health services.

2.4 Procedures for Patients That Are Not Transported

Historically paramedic training, clinical interventions and record keeping focused on serious medical emergencies such as victims of trauma and cardiac arrest, consistent with the core role of emergency ambulance services.

However, approximately 25% of ambulance patients are not transported to hospital. Recent studies by the NSW Department of Health demonstrate that the representation rate for ambulance patients who are not transported to hospital is similar to the representation rate for patients who are not admitted to hospital following attendance at an Emergency Department.

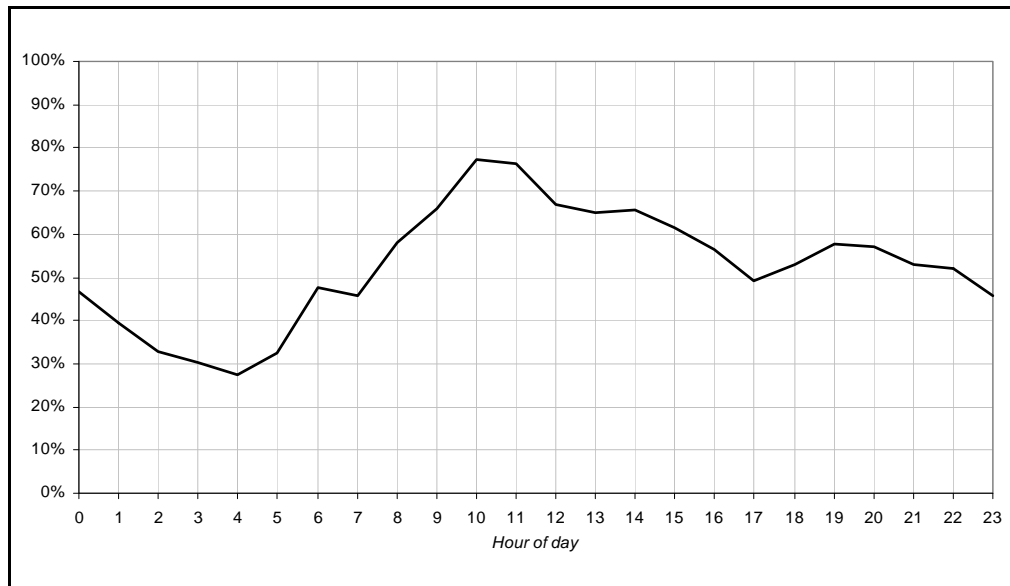
In 2005 Ambulance introduced new protocols requiring systematic documentation for all cases where patient contact occurs even when a detailed assessment is not carried out. This has improved the clinical record and information retained about the presentation of less serious cases and enabled detailed planning for new care models.

2.5 Utilisation Rates

A key indicator of emergency capacity is utilisation rates for emergency ambulances. A high utilisation rate means that capacity to manage emergency demand decreases as fewer ambulances are available to respond. Lower utilisation rates indicate a high response capacity. When measured by hour of day, utilisation rates provide a guide to deployment and roster requirements. A utilisation rate over 50% is regarded as high. Utilisation rates for Sydney and other major Australian and New Zealand cities are set out in the following figures.

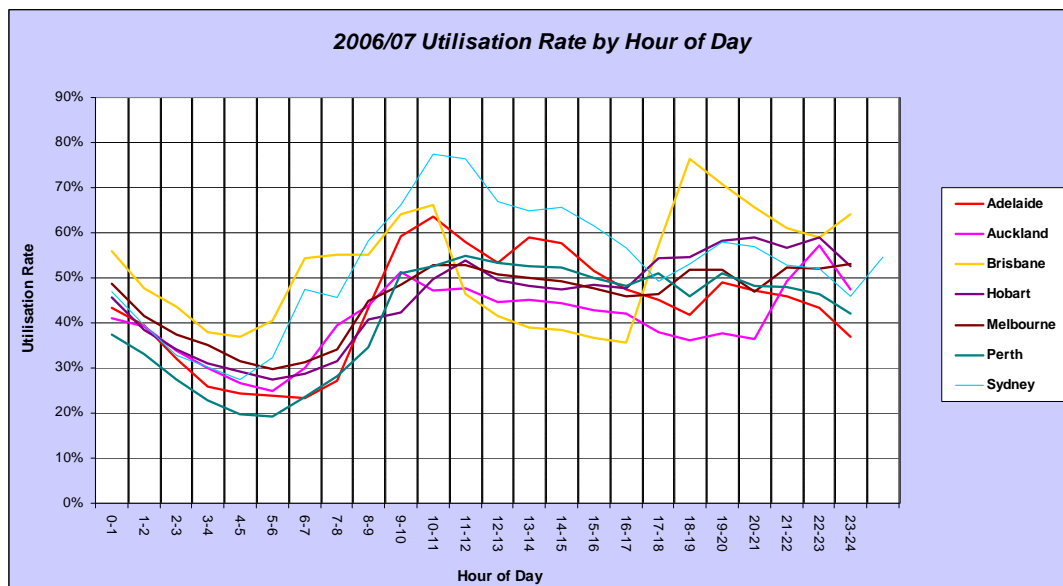
Utilisation rates in Sydney are higher than in any other ambulance service between 0700 hours and 1700 hours. Capacity to address the high utilisation period exists within the rostering for the early morning period. This information was used to inform the development of a roster proposal presented as part of NSW Health's application in the Special/Work Value Case which is currently before the Industrial Relations Commission of New South Wales.

Figure 7: Utilisation rate for Sydney emergency ambulances in 2006/2007



Source: Ambulance Service of NSW

Figure 8: Utilisation rate for emergency ambulances Capital Cities for 2006/2007



Source: The Council of Ambulance Authorities – 2006/07 Annual Report

2.6 Performance

The historical key performance measure for ambulance services is response times. In 2006/2007 the Ambulance Service responded to 50% of all emergency cases within 9.6 minutes. Response performance is benchmarked against other jurisdictions in Australia by the Productivity Commission.

Significant increases in resources and improved operational practices have contributed to improved response times for NSW since 2002. Strategies that have been implemented include:

- increasing the use of patient transport officers for non-emergency transports;

- rostering to demand patterns;
- using fluid deployment (placing ambulances on stand-by at designated points within high workload areas);
- using rapid responders in metropolitan areas and changing on-road supervisors to 24 hour rosters;
- prioritising calls – to ensure potentially life threatening emergency cases receive urgent responses; and
- introducing a patient allocation matrix which improved off-stretcher times at emergency departments from 2004/05 to 2006/07. (System-wide improvements across Health also contributed to reducing off-stretcher times.)

NSW has improved on response performance in 2004/5 and 2006/7.

Figure 9: Comparative Response Times for Emergency Code 1 cases 50th percentile

	NSW	VIC	QLD	WA	SA	Tas	ACT	NT
2002-03	9.7	9.0	9.0	9.0	8.5	10.2	7.4	9.0
2003-04	9.9	9.0	8.0	9.0	9.2	10.3	7.5	9.0
2004-05	9.8	9.0	8.0	9.1	9.4	10.1	7.5	9.5
2005-06	9.5	9.0	8.0	9.7	9.6	10.2	7.5	8.5
2006-07	9.6	10.0	8.2	9.0	9.4	10.5	8.2	9.0

Source: *Productivity Commission, Report on Government Services 2008*¹⁰

¹⁰ It should be noted that there are variations among Australian ambulance services on when recording of the time for measuring “response time” commences. Some services record response times from the time the telephone operator enters the first key stroke. Others measure from the time the basic address details are captured and transferred to a dispatcher. Australian ambulance services have agreed to report response times from the first key stroke for the Productivity Commission Report for 2007/08. For NSW and for most other Australian services the change is expected to add 1 to 1.5 minutes to currently reported times at the 50th percentile. Historical data is available on this measure in NSW so comparative analysis of response performance over time will be maintained.

Australian ambulance services are also working towards reporting response times from the time the “000” telephone call starts to ring at the ambulance service, as a more complete measure of ambulance responsiveness. However, not all jurisdictions have the technology to report this information at present.

3 Staffing Profile

The Ambulance Service of NSW has 3,700 staff, making it the largest ambulance service in Australia and New Zealand. Importantly 89.7% of staff are in front-line service delivery roles: working as paramedics, clinical trainers, doctors and nurses, or as call-takers and dispatchers in operations centres. The Ambulance Service has a greater proportion of staff engaged in frontline service delivery than comparative Australian services: 77% in Queensland Ambulance Service, 84% in Metropolitan Ambulance Service Victoria, 81% in Rural Ambulance Victoria and 74% in the South Australian Ambulance Service.

Figure 10: Jurisdictional Staffing Comparison

		NSW	QLD	MAS	RAV	SAAS	WA	TAS	ACT	NT	TOTAL
All Salaried Staff	FTE	3,700	3,197	1,534.2	1,054.38	980.19	736.9	262.93	132.8	133.5	11,732.8
Ambulance Operatives	FTE	3,193.4	2,481.0	1,291.3	856.1	725.4	524.2	214.90	105.0	100.0	9,491.2
Population		6.8m	4.1m	5.1m*	5.1m*	1.6m	2.1m	0.5m	0.3	0.2	20.7m
Incidents / 100k pop		13	17	13*	13*	14	8	12	9	N/A	13

RAV and MAS combined data

Source: Productivity Commission, Report on Government Services 2008

3.1 Rural Enhancement

Ambulance staff enhancements in recent years have provided significant additional resources in rural and regional areas with 108 additional paramedics in 1999 and 230 additional paramedics funded in 2003 implemented over a four year period.

Figure 11: Allocation of Rural & Regional Enhancements, 2003 to 2007

Year	Northern Division		Southern Division		Western Division		Educators	TOTAL
	Paramedic	PTO	Paramedic	PTO	Paramedic	PTO		
							-	-
2003/4	18	-	4	-		-	10	32
2004/5	20	16	13	12	10	-	5	76
2005/6	31	-	18	-	11	-	5	65
2006/7	29.5	-	22.33	-	14.37	-	-	66.2
Total	98.5	16	57.33	12	35.37	-	20	239.2

Source: Ambulance Service of NSW (PTO is Patient Transport Officer)

3.2 Sydney Staffing Enhancements

In the Sydney metropolitan area major reform projects began with Government investment of \$59m following the release of the Auditor General's Performance Audit, "Readiness to Respond" in 2001. An additional 35 paramedics and 30 patient transport officers facilitated a number of operational reforms that significantly improved operational efficiency. The Ambulance Service also developed modelling and planning tools which were used to design optimal deployment patterns.

In 2005 funding was provided for an additional 249 operational staff over four years. The purpose of the enhancement was to improve response times in metropolitan Sydney. To date 174 additional staff have been recruited with the remaining 75 coming on line in 2008/09.

3.3 Staff Attrition

Attrition of staff of the Ambulance Service is relatively stable.

While there are no current recruitment shortfalls, the Ambulance Service is experiencing a decrease in the number of applicants applying for positions. To ensure continued low vacancy rates, broader recruitment strategies have already commenced including:

- making employment attractive for qualified officers from interstate and overseas; and
- encouraging university graduates (paramedics and nurses) with accelerated paramedic qualification programs (one year of practical training for those with a relevant university qualification).

Figure 12: Attrition in the Financial Years 1999 to 2006 for Paramedics

Financial Year	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07
Separations	110	140	117	131	151	122	143	130
Establishment	2585	2662	2701	2860	2994	3072	3212	3347
% Attrition	4.3	5.3	4.3	4.6	5.0	4.0	4.5	3.9

Source: Ambulance Service of NSW

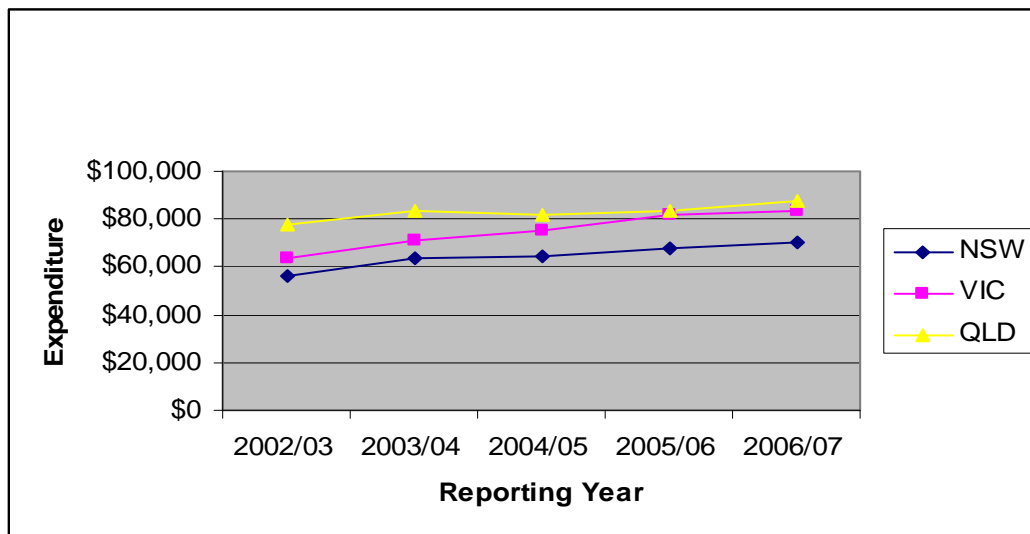
Attrition rates for paramedics continue to be low compared to most government agencies and the total Australian workforce, averaging 4.5% over the last eight years. ABS statistics indicate an attrition rate of 15 % across the Australian workforce (excluding seasonal and holiday jobs).

4 Financial Efficiency

The cost of running ambulance services in NSW is either in line with or well below, that for similar services in other Australian jurisdictions.

The expenditure table below compares ambulance expenditure in NSW with Queensland and Victoria. NSW has lower spending per capita on ambulance services than in Victoria and Queensland. This is despite the rates of ambulance incidents per capita in NSW being similar to Victoria, lower than Queensland and in line with the Australian national average (see Figure 10).

Figure 13: Expenditure by NSW, Queensland and Victorian Ambulance Services per 1000 Persons



Source: Productivity Commission, Report on Government Services 2008

The NSW Independent Pricing and Regulatory Tribunal (IPART) reviewed ambulance charges in 2005. It confirmed the relative efficiency of ambulance operations in NSW and recommended a revised pricing structure for ambulance charges. The IPART recommendations including the introduction of a “treat not transport” charge and differential pricing for emergency and non-emergency cases have been progressively implemented since 1 July 2006. The final component of the recommended pricing changes was implemented on 1 July 2008. The following tables compare NSW expenditure with other jurisdictions, with the sources of funding broken down into the various streams.

Figure 14: Major Source of Revenue per Jurisdiction ¹¹

2006-07	Unit	NSW	Vic	Qld	SAAS	WA	TAS	ACT	NT	Aust
Government grants	%	72.5	57.3	78.5	32.4	45.7	88.1	78.1	65.5	65.2
Indirect Govt. revenue	%	-	0.5	-	-	-	-	-	-	0.1
Other revenue	%	2.3	22.6	4.5	24.5	18.1	1.0	1.2	25.0	11.4
Transport fees	%	25.3	19.6	17.0	43.1	36.2	10.9	20.7	9.5	23.3
Total	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Government grants	\$m	337.6	245.2	289.9	34.7	54.7	26.6	14.7	11.6	1015
Indirect Govt. revenue	\$m		2.2							2.2
Other revenue	\$m	10.6	96.5	16.8	26.3	21.7	0.3	0.2	4.4	176.9
Transport fees	\$m	117.7	83.7	62.7	46.2	43.4	3.3	3.9	1.7	362.7
Total	\$m	466	428	369	107	120	30	19	18	1,557

Source: Productivity Commission, Report on Government Services 2008

¹¹ “Other revenue” for Vic and SA is increased by local “ambulance contribution schemes”

5 Governance and Management

5.1 History

The Ambulance Service of NSW was established as a single corporate entity in 1990 under the *Ambulance Services Act* (1990).

Between 1990 and 2000:

- a number of small regional Ambulance administrations were consolidated;
- an accredited training program for ambulance officers was established;
- 11 operations centres were consolidated into four operations centres;
- a Computer Aided Dispatch system was implemented;
- senior superintendent positions were restructured; and
- systems for financial administration, human resources management, and other corporate functions were established on a state-wide basis.

The opportunities for improving the coordination, efficiency, planning and performance accountability of managers were limited at this time as due to a range of factors there were nine individuals appointed to the position of Chief Executive Officer in a ten year period.

Industrial unrest and a critical performance audit by the NSW Auditor General in 2001 provided further momentum for management change and reform. Management priorities were focused on establishing senior executive leadership, expertise and accountability. Core competencies for executive staff were defined and executive positions were classified as Health Executive Service (HES) positions. Senior staff, including career superintendents, were assessed against the executive competencies and a number of senior superintendents retired or resigned during this period.

By 2003, the current executive structure had been settled with the second and third tier operational managers employed within the HES. Specialist managers were recruited for Information Technology, Human Resources, Fleet and Finance. Senior staff were also recruited from ambulance services in other jurisdictions, including the United Kingdom.

As part of legislation to insulate the public sector employees from the previous Federal Government's WorkChoices legislation, the NSW Government changed the *Health Services Act* in March 2006 so that the Ambulance Service became a division of the NSW Health Service and the Ambulance Service Board became an advisory council. The Chief Executive of the Service reports to the Director-General of NSW Health.

5.2 Current Management Structure

Under the current structure there are four Operational Divisions (Sydney, Southern, Western and Northern) comprising road ambulance operations and a "000" call centre. A fifth Division operates aeromedical and medical retrieval services. All Operational Divisions report to the General Manager, Operations.

The General Manager, Corporate Services has responsibility for human resources, fleet, information technology, and assets and infrastructure. Appropriately skilled professionals lead the core functions.

The General Manager, Clinical Development focuses on the development of clinical standards and new models of care, monitoring and reporting on the quality of clinical service delivery and paramedic training. Medical advisers have been appointed including an adviser for mental health.

The Chief Finance Officer is responsible for advising the Chief Executive and Executive Management Board on financial strategies and the management of external and internal reports, accounts, supply and data services for the Ambulance Service.

All major business units have a business plan linked to the overall strategic direction of the Ambulance Service. Linkages with the Department of Health strategic directions have been improved.

A system of performance agreements and annual appraisal has been established at the executive and senior management level. More work and refinement is underway to imbed these systems throughout the organisation. This is discussed further at 5.6 below.

Governance systems for operational, clinical and financial activities have been established. An important advancement in the management culture has been the adoption of the NSW Health clinical governance framework. Open reporting of errors within and outside the chain of command, use of root cause analysis and other confidential clinical review systems has helped focus emphasis on ambulance responsibilities for delivering high quality clinical care, albeit in an emergency setting.

The Ambulance Service has fewer staff on executive contracts than in Queensland and Victoria ambulance services. This places significant reliance on senior and middle level managers and further support to develop the skill base of managers below executive level is a growing priority.

Figure 15: Executive and Operational Management Staff Number Comparison

	NSW	QLD	VIC	SA	WA	TAS	ACT	NT	TOTAL
Ambulance Operatives	3193.4	2481.0	2147.4	725.4	524.2	214.9	105.0	100.0	9491.2
Operational Managers	70.0	55.0	48.0	22.0	21.0	8.0	6.0	9.0	239.0
Executives	8.0	14.0	11.3	7.0	6.0	3.00	4.5	3.0	56.8
All Salaried Staff	3,700.9	3,197.0	2,588	980.19	736.9	262.93	132.8	133.5	11,732.8

Source: *The Council of Ambulance Authorities Annual Data Collection - Unpublished*

5.3 Operational Management

Operational management has been progressively realigned to improve the focus on strategic capabilities and management accountability. The realignment process included the introduction of new position descriptions for middle managers with associated management competencies similar to the arrangements for executives. Additional frontline supervisors were also introduced to support operational management.

The realignment of operational management has been completed in Sydney, Southern and Western Divisions. The Northern Division is expected to be finalised in early 2008.

5.4 Frontline Management

There are currently 243 Station Officer positions which provide supervision for a total of 3,200 front-line ambulance staff.

Under the current Award classifications there are inequities within the frontline management structure as a "Station Officer" may have responsibility for three staff at a small rural station or 50 or more staff with multiple roster modules and specialised skill sets at a large metropolitan or regional station. Remuneration of Station Managers needs to reflect the

varying levels of responsibility across the State - in terms of the location and size of the station and the number of staff supervised. Staff will also benefit from ongoing and regular access to a frontline manager during a shift: under current rostering arrangements it is possible for some staff not to see the station officer for four shifts, or for the station to be without a station manager for 72 hours.

The Ambulance Service also has key clinical and operational performance indicators which are closely monitored. A station manager on a busy station has little capacity to engage staff in clinical review or patient safety programs, particularly if he or she is working as part of an ambulance crew.

In the context of the Special Case/ Work Value claims currently before the Industrial Relations Commission the Ambulance Service is advocating a new approach to station management which acknowledge varying levels of complexity and responsibility across metropolitan and rural operations. Ambulance proposes expanding the pool of front-line managers by adding 35 Team Leader positions and 51 new Station Manager Positions. This will require 30 additional FTEs and the conversion of 56 existing positions to management positions.

5.5 Management Development

Opportunities for career Paramedics to gain management experience outside the Ambulance Service are limited with supervisors and middle managers primarily reliant on their experience within the Service. Most appointments to management positions, other than at Executive level, are from internal applicants and opportunities to undertake formal management development programs are critical to improving the skills and opportunities of frontline and middle managers. The need for a more active and structured approach to building management capacity was identified as one of the key priorities in the Ambulance Service's five-year plan "Excellence in Care: 2007-2012" and was noted by the 2008 Review.

Approximately 100 members of staff are enrolled in general Front-line Management Training which is being run for Ambulance by the Australian Institute of Management. Participants completing the training qualify at Diploma or Certificate IV level.

The training was rolled out in 2007 and enrolments within the training have been progressive. The first group to complete the program graduated on 2 June 2008. While the program has been relatively successful, feedback from participants suggests that more Ambulance specific management training is required.

With a better defined role for front-line managers and more opportunity to take up a management positions, Ambulance is developing a management training program specific to Ambulance that takes into account:

1. The implementation of the Services' policy and procedures relevant to the responsibilities of frontline supervisors / managers.
2. The management of critical incidents at a strategic level e.g. coordinating responses with other agencies, allocating resources under pressure etc.

The Ambulance Service Frontline Management Training program will be rolled out and will be compulsory for all staff in front-line management positions. A complete review of management roles will be undertaken as part of the program, as will the development of more formal assessment processes. The program will also be made available to staff with aspirations to a front-line management role, providing training in a number of core areas, including conflict resolution, human resource and financial management. A broader Management Development Program is also being developed to cover other levels of management such as District Officers. Management training will target 12% to 15% of the workforce.

A Workforce Plan that integrates management development, succession planning, performance management and other key initiatives has been developed. The Ambulance Service will refine this plan during 2008/09 and implement an enhanced program.

5.6 Management Reporting

The Ambulance Service has a Performance Agreement with NSW Health measuring performance against a set of key indicators. Consistent indicators have been developed and established that reflect short and long term performance. Indicators are monitored on a monthly basis and are available to managers across the Ambulance Service. Local performance data is being made available to station officer level with an upgrade in the reporting system in 2008.

There is a culture of constant monitoring of operational performance against key indicators from executive to frontline managers. Reporting focuses on tracking performance to ensure targets are met, and implementing strategies to address performance issues as soon as an issue is identified.

Performance indicators in the Performance Agreement are incorporated into individual performance agreements of managers.

To improve the future reporting of Ambulance Service performance, both to staff and to the public, the Service is committing to a review of public reporting of indicators by other Ambulance Services and its own current internal clinical and safety indicators. It will then determine a suite of clinical indicators that it will report on publicly from 2008/09 in the Annual Report and on its website from July 2009. In the interim, the Ambulance Service will include the appropriate safety and quality indicators in the 2007/08 Annual Report.

A more highly structured performance management system will be established, through the review of the corporate plan and the development of annual operational plans. An Ambulance Service annual operational plan and an organisation wide performance system will be implemented.

6 Staff: Conflict, Grievance, Bullying, Harassment

Most large service organisations are required to manage staff conflict because the biggest asset of most of these organisations is their people.

Conflict ranges from personality clashes between staff to bullying, harassment and violence between co-workers, between supervisors and staff and between staff and the public they serve.

Key Facts on Violence in the Workplace

Internationally

- Female workers and employees in precarious work are among those most at risk of violent behaviour in the workplace
- A UK study of 5,388 employees across sectors found that around 25% had been bullied in the previous 5 years
- An Irish national survey found that 23% of respondents had been bullied in the previous 12 months
- Studies show that bullying in Norway, as in other countries, is more prevalent in male dominated organisations
- At least 10% of all workers can be considered as being currently subjected to bullying¹²
- Socialisation into professions through training frequently fosters behaviours that translate into workplace bullying practices¹³

In Australia

- Almost half (46%) of all Australians have been abused, verbally or physically by a co-worker
 - 50% of all Australians have been abused by a member of the public while working
 - Australians are more likely to be abused by a co-worker (35%) than a manager (31%)¹⁴
-

6.1 Grievance Management

A grievance is formally recognised in the health system as a written or oral statement made by an employee regarding a concern arising in the workplace. Examples may include, but are not limited to, interpersonal conflict, the way work is allocated or managed, interpretation of people management policies, or a perceived unfairness in the workplace. The grievance usually involves some concern or personal distress, and will usually, though not always, involve other people.

Grievances are usually relatively minor workplace issues or concerns. They are different to complaints of potentially serious bullying and harassment and the way in which they are managed will also be different. Bullying and harassment is defined as unreasonable,

¹² Hoel, H The Cost of Violence/Stress at Work and the Benefits of a Violence/Stress- Free Working Environment. Institute of Science and Technology, University of Manchester, report commissioned by the International Labour Organisation, Geneva 2001, p25

¹³ Turney, L Mental Health and Workplace Bullying : The role of power, professions and 'on the job' training, Australian e-Journal of mental Health (AeJAMH), Vol 2, Issue 2, 2003

¹⁴ Roy Morgan Research Centre, Finding No. 3091 – 1998 - sourced at <http://www.roymorgan.com/news/polls/1998/3091/> - 3 July 2008

undesirable behaviour in the workplace, or in the course of employment, that will generally meet all of the following criteria:

1. It is repeated;
2. It is unwelcome and unsolicited;
3. The recipient considers the behaviour to be offensive, intimidating, humiliating or threatening; and
4. A reasonable person would consider the behaviour to be offensive, intimidating, humiliating or threatening.

This section deals with grievance management. Bullying and harassment is discussed further at section 6.3.

In the Ambulance Service, as in other organisations, it is the role of managers to take the lead in resolving grievances raised by their immediate staff. If the matter is not resolved the issue can be escalated through senior regional management. When all possible options for resolution have been exhausted, the regional manager (or the grievant) has the option of referring the matter to the relevant general manager, for further intervention and resolution.

Options for resolution are varied and may include:

- encouraging the complainant to try and resolve the issue him/herself e.g. in minor interpersonal matters;
- encouraging/facilitating local resolution prior to moving to more formal management of the grievance e.g. minor workplace matters;
- mediation e.g. where the above options are not appropriate, or have not been successful;
- making minor administrative or work process changes e.g. where there is perceived unfairness in work arrangements, or to address minor OHS issues etc;
- provision of information, education and training e.g. where a lack of knowledge of workplace policies and/or procedures, roles and responsibilities or cultural issues have lead to/contributed to the grievance; and
- a variety of combinations of the above.

Grievance management is very different to performance management or the disciplinary process. Where a matter is assessed as a grievance it is not managed by the disciplinary process. However, where investigation of what initially appears to be a workplace grievance uncovers matters of a more serious nature, then grievance management immediately ceases and the matter is referred to a more relevant management process e.g. disciplinary process, performance management, child protection, clinical complaints etc.

Matters that are not dealt with under the grievance management system include (but are not limited to):

- Incidents of violence, or of a potentially criminal nature.
- Serious bullying, harassment or discrimination.
- Serious OHS concerns.
- Complaints from clients or patients.
- Allegations of serious misconduct, fraud, corruption, maladministration or substantial waste.
- Child protection related matters.
- Protected disclosures as defined in the *Protected Disclosures Act 1994*.

- Clinical negligence, malpractice or incompetence.
- Performance Management.

Grievances that allege behaviour that may constitute misconduct are escalated directly to the Professional Standards and Conduct Unit for investigation and management. Complaints may be lodged by members of the public about the service or standard of care that they received. Complaints may be lodged by email, phone, fax or post.

6.1.1 Disciplinary Matters

Disciplinary matters are matters that involve allegations of misconduct, serious performance issues or inappropriate behaviour by Ambulance Service staff, usually involving breaches of NSW Health policy, which, if proven, would lead to the staff member being formally disciplined.

Disciplinary matters can also be dealt with through remedial action when it appears appropriate to do so. Remedial action can include:

- (a) counselling,
- (b) training and development,
- (c) monitoring the employee's conduct or performance,
- (d) implementing a performance improvement plan,
- (e) the issuing of a warning to the employee that certain conduct is unacceptable or that the employee's performance is not satisfactory,
- (f) transferring the employee to another position in the Ambulance Service that does not involve a reduction of the employee's classification or position,
- (g) any other action of a similar nature.

Disciplinary action, in relation to an employee of the Ambulance Service, means any one or more of the following:

- (a) dismissal from the Ambulance Service,
- (b) directing the employee to resign, or to be allowed to resign, from the Ambulance Service within a specified time,
- (c) if the employee is on probation—annulment of the employee's appointment,
- (d) except in the case of a senior executive officer—reduction of the employee's classification or position,
- (e) a caution or reprimand.

The role of the Ambulance Service Professional Standards and Conduct Unit is primarily the investigation and management of disciplinary matters. The Unit provides:

1. expert advice and service in relation to consumer complaints and staff conduct
2. supports staff involved in these processes
3. promotes ethical decision making and professional standards of conduct
4. manages the Service's relations with agencies such as the Independent Commission Against Corruption, the Ombudsman, the Health Care Complaints Commission and the Coroner.

6.2 New Approach to Managing Grievances

Consistent with the recommendations of the 2008 Review, the Ambulance Service is implementing improvements to the management of staff grievances that reflect the fact that the resolution of grievances is not necessarily suited to the procedures applied to the investigation of serious misconduct.

A clearer process is being developed to assist managers at all levels of the Service to decide if the matter should be:

- managed directly by local management;
- referred for clinical advice or review;
- entered into a more formal grievance resolution; or
- referred to the Professional Standards and Conduct Unit for investigation, given its serious nature.

The capacity of the Workforce Unit is also being developed to allow the Unit to take responsibility for coordination of grievances and provision of expert support and advice to managers involved in grievance resolution. Referrals to the Professional Standards and Conduct Unit will be limited to those matters where issues of serious misconduct are raised and its role in handling only those matters will be clarified.

6.3 Bullying and Harassment

As outlined earlier, international studies report verbal abuse and bullying as common experiences across the industrialised world, with incidences between 10-50%.¹⁵ It has also been reported that white males aged 30 to 50 years who have been employed with an organisation for some time may be more common perpetrators of physical violence¹⁶. Of note while the Ambulance Service has increased female paramedics to 31% from 1% in 1979, the staffing profile is predominately males (69%) who have been with the Service for many years.

*Bullying is not tough management. It's purpose is to hide inadequacy..*¹⁷

Violence to staff in any form has been taken very seriously by NSW Health. The NSW Department of Health has developed a number of key initiatives to prevent workplace bullying occurring, and to effectively and promptly manage workplace bullying, should it occur. The Ambulance Service is bound by and applies these policies and procedures in managing bullying and harassment related claims and grievances.

Initiatives by NSW Health include:

- Development of a joint anti-bullying statement, signed by major health unions and the A/Director-General and issued under policy directive (PD2005_223 Joint Management and Employee Association Policy Statement on Bullying, Harassment and Discrimination) identifying that bullying will not be tolerated, and that all incidents should be reported and investigated.
- Development of a zero tolerance to violence policy and detailed guidelines, which includes and acknowledges bullying as a form of workplace violence (PD2005_315 Zero Tolerance Response to Violence in the NSW Health Workplace). The policy and guidelines were also supported by posters and brochures.
- Development of NSW Health training package: A Safer Place to Work: Preventing and Managing Violent Behaviour in the Health Workplace (PD2005_316). The training

¹⁵ Hoel, H 2001 op cit

¹⁶ Dale, R. Tobin, W and Wilson, B Workplace Violence: another dimension of precarious employment

¹⁷ Field T 2002 cited in Turney, L op cit p2

package includes a module specifically relating to preventing and managing bullying behaviour.

- Development of a detailed policy and guidelines for grievance management (PD2005_584 Effective Workplace Grievance Resolution: Policy and Better Practice), that clearly articulates the role of effective workplace grievance management in preventing low level unacceptable behaviours from escalating into more serious workplace issues such as bullying.
- Reiteration in the NSW Health Code of Conduct (PD2005_626) that staff must treat all people in the workplace with dignity and respect and never engage in, or encourage or support, bullying behaviour.
- Release of NSW Health guideline GL2007_011 Guidelines for the Prevention and Management of Workplace Bullying in July 2007, which provides detailed advice to managers and staff on how to prevent workplace bullying using a risk management approach, advice to staff on how to report workplace bullying and what they can expect in response to their complaint, and advice to managers on how to effectively respond to and manage the complaint.

The Ambulance Service has an ongoing program to address bullying and harassment which includes:

- increased responsibility and accountability in position descriptions;
- skills training for managers and supervisors;
- policy guidelines and development of performance management frameworks; and
- improvements in the reporting and monitoring processes for grievances.

In practice, claims of bullying and harassment that can be managed locally are dealt with locally wherever possible. Where an allegation is made of behaviour that may amount to misconduct it is referred to Professional Standards and Misconduct Unit. Serious bullying and harassment may constitute misconduct and is appropriate for investigation and action by the Professional Standards and Conduct Unit.

Currently the Professional Standards and Conduct Unit is managing:

- four misconduct inquiries where allegations of bullying and harassment have been raised; and
- one further matter in which allegations of bullying and harassment have been raised which is at the fact finding stage.

WorkCover claims for psychological injuries in which workplace harassment or workplace bullying have been identified as an issue have remained relatively steady over the last four years. Four claims were made in 2004/05, four in 2005/06 and four in 2006/07. As at February 2008, two claims had been lodged in 2007/08.

While the current Ambulance Service policies for managing bullying and harassment are clear and comprehensive, the Ambulance Service is now working to:

- simplify the policies and procedures;
- incorporate a consistent initial assessment process in the complaints management framework;
- clarify responsibility and accountabilities around behaviour in the workplace;
- conduct ongoing training to ensure a healthy, respectful culture at work; and
- expand the support and training available to those in front-line positions and those that aspire to them.

In the next six months, it is intended that simplified policies and procedures will be widely distributed and promoted through the Service, and management position descriptions will be updated to clarify responsibility in this area.

The Ambulance Services faces unique cultural and workplace challenges in addressing issues related to bullying and harassment. Ambulance Service staff get to know each other very well during the hours spent working side by side on shift. Many staff have known each other for many years and this can make it difficult for those promoted from within the ranks to manage people who were previously their peers. Recent analysis conducted by the service indicates that there is an unwillingness to take personal responsibility for poor workplace behaviour and responsibility for managing poor behaviour tends to be deferred up the chain of authority.

Consistent with the 2008 Review, the Ambulance Service will be expanding training for front-line managers. This will include the development and implementation of:

- clearly articulated responsibility for all staff to accept responsibility to act when they become aware of disrespectful behaviour, whether they are involved or not;
- clearly defined practices to deal with grievances informally between and amongst staff;
- clearly defined practices that enable local management to handle grievances at the local level; and
- accountability/performance measures to ensure where appropriate that grievances are dealt with at the local level.

All new staff currently receive information concerning harassment as part of their induction process. This was reviewed and enhanced in 2002 to provide a greater focus to address bullying.

The Ambulance Service has committed to review internal training processes in 2008/09 to ensure that all staff, both new and old, attend appropriate information sessions on a regular basis. These will outline the content and intent of the Code of Conduct, related policies and procedures, and staff rights and responsibilities.

A Bullying and Harassment Taskforce was established in 2007. The Taskforce has developed and distributed information about preventing bullying & harassment, appropriate workplace behaviour and guidance in managing these claims at the local level.

The Taskforce recommended a Healthy Workplace Summit to:

- consult with staff and gain an understanding of their needs should they encounter workplace conflict;
- gain common understanding of what behaviours or situations constitute bullying and harassment; and
- work together on the policies, procedures, tools and training to combat bullying and harassment and improve workplace conflict interventions.

The Summit was held on 28 May 2008 and brought together staff from different occupational groups and levels from all regions across the State. The information from the Summit is being used to inform the Service's new approach to dealing with this issue.

6.4 NSW Health Code of Conduct

The NSW Health Code of Conduct reminds staff of their responsibilities in relation to reporting corruption, maladministration, serious and substantial waste, reportable conduct in relation to child abuse, public health issues and criminal matters. The Code of Conduct also requires staff to report staff who breach the Code of Conduct. The Ambulance Service encourages staff to raise concerns about inappropriate workplace behaviour or other concerns at an early stage. Trainee Paramedics, Patient Transport Officers and Communications Assistants are trained in Workplace Behaviour: Responding Effectively to Bullying and Harassment during their initial training period. Over the last financial year 284 new staff were trained and a further 276 staff trained in the "Occupational Violence" course, which includes a segment on bullying and harassment.

Staff who make complaints about corrupt conduct, maladministration and serious and substantial waste have the protection of the *Protected Disclosures Act 1994*, reinforced in the *Ambulance Services Regulation 2005* that includes in the definition of misconduct the taking of any detrimental action against a person as a reprisal for that person making a protected disclosure, or the taking of any action against another employee that is substantially in reprisal for the making of an internal disclosure.

Consistent with the 2008 Review, position descriptions will be amended to specify that all Ambulance Service staff are required to comply with the Code of Conduct and related policies, and management training will include putting the Code of Conduct into practice.

6.5 Communication and Staff Engagement

Currently the Ambulance Service uses a range of media to consult with and to engage staff. The intranet has become an increasingly important tool to communicate with staff and to provide opportunities for staff to:

- contribute to policy and program development;
- comment on operational issues including standard operating policies; and
- comment on clinical practice changes and pharmacology and procedures.

For example following the launch of the new uniform in December 2007 staff raised a number of issues about various uniform items. An email address to comment on the uniform was established and 350 staff submitted comments and suggestions. This feed back was used in making changes to the uniform to improve operational functionality and comfort.

Open staff consultation processes have proven effective in developing new clinical policies and practices. A combination of Administrative Bulletins and clinical discussion papers have been used to elicit staff feedback for major changes to clinical practice such as:

- introduction of the "Variations to Clinical" policy to facilitate a supportive and open culture through reporting of clinical errors and protocol variations;
- planning for the introduction of a Clinical Profile for staffing establishment to guide more equitable distribution of paramedics with specialist clinical qualification across the State;
- changes to the way in which paramedics are authorised to use Ambulance protocols and pharmacologies through the new "Certificate to Practice" requirements;
- introduction of the Extended Care Paramedic and expanded decision making pilot projects; and
- introduction of the "advanced skills program" through which the training of all qualified paramedics is upgraded with additional clinical practice skills and drug interventions (including intravenous access, pain and airway management). The program also allowed

for specific skill approvals to be made to paramedics practicing in remote and isolated locations.

This approach has proved effective in obtaining constructive informed feedback and identifying potential areas of risk or concern from the workforce.

The Service is currently consulting with staff on developing a policy to provide guidance in the complex clinical and ethical area of end of life decisions. For example where a doctor may have issued a "Do Not Resuscitate Order" but is not present at the scene with paramedics or when it is appropriate for paramedics to cease resuscitation. More than 60 paramedics have provided feedback on these proposals so far.

Consultation is also planned on potential changes to spinal injury management, pain management and airway management in response to emerging clinical evidence.

The "Feedback" section on the staff intranet allows general feedback to be made on a number of areas including: career, clinical, education, employee relations, finance, IT support, PSCU, public affairs and social networking.

Staff are also able to email the Chief Executive through the "Ask Greg" email link on the Intranet. The email box was set up in October 2007 and 80 questions have been submitted to date with 78 outcomes. Some questions raise complex issues however only two questions are currently outstanding and both these questions were submitted less than three weeks ago.

The Service acknowledges that there are opportunities to improve the coordination and delivery of communication to staff in relation to issues of concern to them and to address any areas of staff dissatisfaction. Consequently, and in response to the 2008 Review, in the next six months the Ambulance Service will prepare an annual staff communication strategy.

Mechanisms will be developed to communicate organisational change flowing from major projects such as the Electronic Patient Record and planned Sydney Infrastructure Review, outlined later in this submission.

The Service will also review and consolidate existing staff feedback and survey activities. The avenues and timetables for staff feedback will be clearly set out and articulated. The development of a process for responding to key issues raised by staff will also be developed as part of the staff communication strategy.

To improve the relationship between the Ambulance Service and the Health Services Union, and achieve positive outcomes for staff, the Service will prioritise the preparation of draft guidelines for the management of future organisational change. This will form the basis for consultation with the unions in relation to these issues.

In order to continue to promote the welfare of staff, the Ambulance Service will, by the end of 2008, evaluate current staff support services. Staff will be engaged and consulted in the review. Staff support services used by other emergency agencies will also be reviewed. The Service is committed to take action on the recommendations of the review by July 2009.

7 Occupational Health and Safety – Policies and Management

The Ambulance Service is committed to providing a safe and healthy work environment for all staff. Members of staff are not expected to put themselves, their colleagues or the community, at significant risk and are required to operate in a safe manner at all times.

The Ambulance Service actively manages occupational health and safety issues through a dedicated risk management team. The risk management policies and procedures in place relating to occupational health and safety are comprehensive.

The risk management teams include regionally based OHS/Risk Educators and Injury Management Coordinators who work with frontline managers and workplace OHS committees to ensure a safe work environment.

The Ambulance Service meets with WorkCover every three months to review occupational health and safety issues and initiatives: such as a trial of Bariatric vehicle and mega-life stretchers for overweight patients transport. WorkCover wrote to the Ambulance Service in March 2008 to commend the Service on its efforts and initiatives to work in partnership with WorkCover to build occupational health and safety capability within the Service.

In 2006 the Ambulance Service received a commendation in the Treasury Managed Fund Risk Management Awards for achievement in safety leadership and accountability.

All Ambulance Service managers and supervisors are required to ensure that the workplace OHS policies are followed. This includes regularly assessing hazards and risks in the workplaces and identifying, reporting and taking practical and immediate steps to reduce the risk of manual handling injuries.

Injury Management Coordinators in the risk management team:

- manage workers compensation claims, return to work plans, non work related injuries and all medical restriction of staff in the workplace;
- provide a regional service for each Division and attend monthly meetings in addressing injury management issues, accommodation or restrictions and plans for a successful return to work;
- have developed a centralised database across the Service for suitable duties to be accessed by all staff with restrictions. This has needed to be done due to the limited size and scope of duties across the service;
- identify current injury trends and work with the OHS/Risk Educators in implementing specific training to address; and
- report to the Claims Manager who also manages all liability matters.

The Ambulance Service has reviewed its governance systems against the *Internal Audit Capacity in the NSW Public Sector, Final Report*. All its core governance requirements are currently based on this framework. Systems are progressively being reviewed with various governance aspects being incorporated into a specific internal audit plan for 2008/09.

An Integrated Strategic Risk Management Plan has been developed against the *Australian and New Zealand Standard 4360:2004 – Risk Management* criteria. This will be reviewed by the Ambulance Audit Committee in August 2008. In the interim, the Ambulance Service is continuing to implement key risk strategies and modify and refine aspects of its internal audit plan.

Consistent with the 2008 Review, by the end of 2008. the Service will also have completed a review of the current Audit Committee and risk management responsibilities.

7.1 Reducing the Risk of Manual Handling Injuries

The nature of paramedic work puts staff at risk of manual handling injuries. In 2005 in response to an increase in the number of manual handling injuries the Ambulance Service employed OHS/Risk Educators within each operational division. This initiative has led to a significant reduction in manual handling injuries from 335 manual handling injuries in 2005/06 to 257 in 2007/08.

The Ambulance Service OHS/Risk Educators currently:

- provide all on-road operational paramedics with manual handling training;
- provide ongoing education and training on manual handling in the workplace;
- conduct risk assessments and hazard identification, and implement work practices and systems in response to issues that are identified;
- undertake manual handling assessments of workers' compensation claimants;
- co-ordinate meetings and activities of local OHS committees;
- work closely with frontline managers to reduce the risk of injuries; and
- develop and provide OHS training.

In 2008/09 the OHS/Risk Educators will also commence providing training in workers compensation, injury management, IIMS and Death and Disability Scheme policy and procedures.

As at 30 June 2008, the Ambulance Service had trained 2,000 staff in workplace risk assessment.

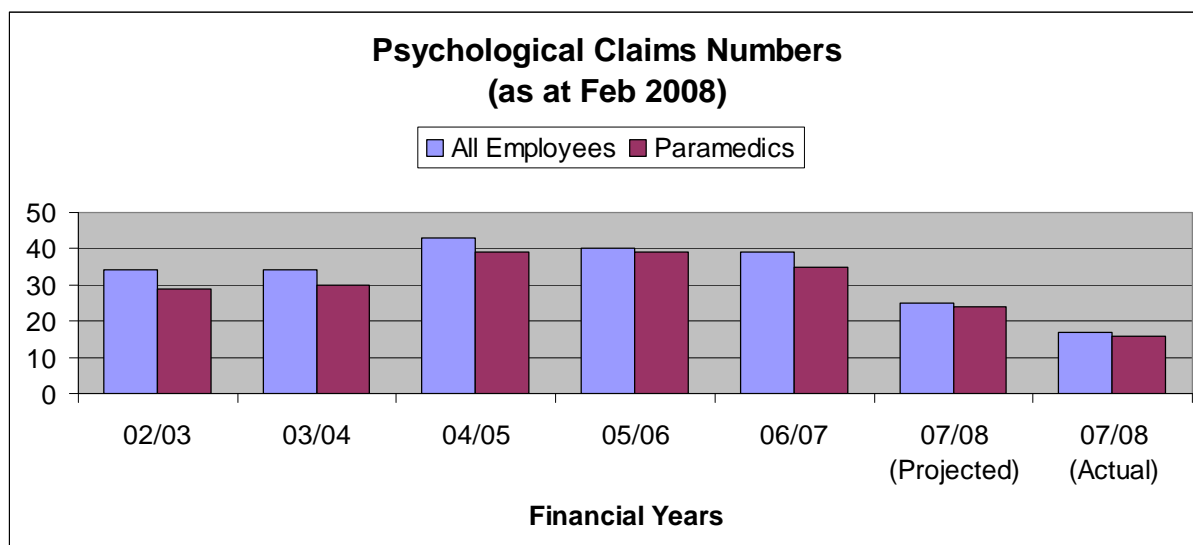
7.2 Reducing the Risk of Psychological Injuries

The Risk Management Unit of the Ambulance Service is actively monitoring and assessing trends in psychological injuries. Initiatives to address psychological injuries include:

- developing an Occupational Violence Training Package with the OHS/Risk Educators;
- involvement in the Healthy Workplace Forum to develop preventative strategies for bullying and harassment in the workplace;
- the development of a Psychological Injuries Working Party to commence in June, which will include key internal and external agency stakeholders, including WorkCover to address psychological injuries in the workplace; and
- participation in and comments on psychological injury initiatives undertaken by external agencies, such as WorkCover and Conference committees.

The number of psychological injuries declined in 2006/07 and year to date figures suggest that it will continue to decline in 2007/08.

Figure 16: Psychological claims numbers



	02/03	03/04	04/05	05/06	06/07	07/08 (Projected)	07/08 (Actual)
All Employees	34	34	43	40	39	25	17
Paramedics	29	30	39	39	35	24	16

Source: IIMS data, 2006/07

The Ambulance Service provides an employee support system which includes an Employee Assistance Program, peer support and chaplaincy services. These programs aim to provide confidential and preventive intervention for the early detection, identification and resolution of work and personal problems affecting an employee. Employees are able to refer themselves to any of the programs or can be referred by a manager, work colleague, peer support officer or Ambulance Chaplain.

The Employee Assistance Program provides free, professional counselling for personal or work related problems for employees and their immediate family. The program also provides managers and staff with assistance in the resolution of workplace issues, including advice on traumatic incidents and arrangements for on-scene support following a traumatic incident.

Peer Support Officers are trained to defuse strong emotional reactions experienced by their work colleagues after a traumatic incident which have the potential to interfere with an employee's ability to function either at the scene or later. Peer Support Officers are frequently the first point of contact for Ambulance crews affected by a traumatic workplace incident and are often the primary source of referrals to the Employee Assistance Program or Ambulance Chaplains. There are currently 112 peer support officers who volunteer their time to assist and provide support for their colleagues.

Ambulance services throughout the world have traditionally engaged chaplains to provide non-denominational individual counselling, pastoral care and spiritual support to their employees. Ambulance chaplains provide support to employees on personal issues that may have wide reaching impact, and are also available to patients and their families who may be affected by traumatic incidents. They also undertake memorial and civil services for staff, their families and ambulance patients. There are currently 20 Ambulance chaplains who volunteer their time for the Ambulance Service.

7.3 Reducing the Risks Associated with Fatigue

The Ambulance Service currently uses roster patterns that include 8 hour, 10 hour, 12 hour and 14 hour shifts. The current Ambulance Officer Operational industrial award requires that any roster of hours should ensure equal share of available penalties and provide access to equal time off-duty.

A key factor for the Service in managing fatigue is the ability to monitor increases in workload as they occur and the allocation of this workload across on-duty and on-call resources. Local managers within the various operational sectors are tasked with monitoring the impact of the workload on Paramedics and where necessary adjust deployments to more adequately share this workload. The monitoring function undertaken by local managers is completed in consultation with senior supervisors of the operation centres so as to ensure optimum operational coverage taking into account the impact of fatigue on operational crews. Any adjustments to deployments are carried out in accordance with the Service's Fatigue Management Policy.

In addition to responding to recognised increases in demand by local managers, paramedics also have the opportunity to advise their local managers when they feel fatigued. The response to such advice is also covered in the Fatigue Management Policy.

Fatigue management is a joint responsibility between paramedics, operations centres and managers. Standard Operating Policy 2008-05 "Fatigue Management" requires that if an officer feels fatigued he or she must take pro-active steps to manage and reduce the effects of fatigue.

Rest options for officers are:

- **Phase 1 – Rest and Respond**

- An officer who has been called out for an extended period of time and who has lost significant sleep can request to rest and sleep at home in lieu of commencing their normal shift. The Operations centre then endeavours to cover/reassign work load to other crews however the officer remains available to be responded to emergency or urgent incidents.

- **Phase 2 – Rest and Not Respond**

- An on-call officer who is fatigued can request to stand down and rest undisturbed. The officer can make the request at the completion of a case by contacting the Duty District Officer of the Operations Centre Supervisor.

Roster reform in the Sydney Division and some rural areas is now providing a better match between rosters and demand patterns. In consultation with the Health Service Union, rosters in Sydney were adjusted to include afternoon shifts allowing more staff to be rostered to the busy afternoon and evening periods instead of the quieter early morning times. In rural areas a number of on-call rosters have been replaced with on-duty arrangements resulting in improved service coverage. These improvements have also reduced officer fatigue and service costs from over reliance on on-call staff.

WorkCover guidelines suggest that when developing rosters the following should be considered:

- A work cycle of no more than 6 x 8 hour shifts or 4 x 12 hour shifts and avoids working cycles of more than seven continuous days.
- Limit the number of nights worked in succession for safety reason. Rotating rosters with shift changes every two or three days is preferable to seven day rotating cycles or fixed shifts.

- Keeping night work to a minimum. Three 8 hour or two 12 hour night shifts are the maximum number of consecutive shifts recommended. Rostered days off should not be in the middle of a night shift sequence.
- Allow for two free weekends in four.
- Schedule rest breaks during night shift to help workers maintain alertness.

In the mid 1980s the Service agreed to a rostering cycle that allowed shift durations of 10 hour day shifts and 14 hour night shifts worked in a 2 day x 2 night shift pattern followed by four consecutive days off duty. This roster was implemented in metropolitan Sydney, Central Coast Illawarra and the inner Hunter. It has subsequently been adopted at larger provincial locations throughout NSW. The remainder of the rural locations work a straight 8 hour roster with on call standby over night.

When the 14 hour night shifts were introduced the majority of the metropolitan areas experienced considerably lower workloads and officers could rest when workload permitted. This reduced the amount of time Officers were directly involved in operational duties however workload patterns have now increased to a point where there is limited opportunity for rest in metropolitan rosters.

A comparison of the current Ambulance rosters with the WorkCover guidelines highlights consistency with the exception of the 14 hour night shifts. Whilst the on-duty shift duration of rural rosters is within the recommended patterns the on-call standby components do impact on officers' rest periods. The 14 hour roster system and the manner in which on-call rostering is utilised in rural locations are not fully aligned to best practice fatigue management.

The Service has submitted a proposal for roster reform in the Special/Work Value Case before the Industrial Relations Commission. This is covered further at 8.3.3. A fatigue management policy has been introduced into operations.

7.4 Reducing the Risks of Infection and Illness

Standard precautions apply to the management of all patients by paramedics regardless of the patient's diagnosis or presumed infection status. Paramedics are trained to use safe work practices and protective barriers including hand cleaning, glove usage and protective apparel to protect health care workers from exposure to blood and body fluids.

Standard Operating Procedures are in place for the management of contact with blood and body fluids (except sweat).

Hand hygiene is a core element in infection control training and the hand hygiene module is repeated throughout the different stages of Paramedic training and at any infection control training opportunity.

The use of personal issue hand hygiene cartridges for paramedics is being evaluated – personal issue hand hygiene cartridges have been trialled by paramedics at the Paddington Ambulance Station.

7.5 Reducing the Risk from Asbestos

In 2005 the Ambulance Service had 188 facilities that were constructed prior to 1988 and most of which were considered likely to contain asbestos. The Service commissioned an audit of hazardous materials for all these facilities

This audit was conducted in consultation with the Health Services Union and HSU representatives worked with the Service on the Asbestos Working Party that oversaw the progress of the audit.

A copy of the audit report for each station was posted on the noticeboard of each Ambulance Station on completion of the audit. The consultants conducting the audit were also briefed to undertake remediation work where immediate contamination concerns were identified. Minor works were carried out at seven stations.

The audit will be updated in 2009.

7.6 Improving Vehicle Safety

In 2000/01, the NSW Government introduced a 10-year motor vehicle replacement program and since 2000, the average age of ambulances has reduced from 6 years to 18 months.

The Ambulance Service has an operational fleet that includes:

- Ambulance (Mercedes and Volkswagon) with stretcher capacity
- Patient Transport Vehicles
- Over Snow Vehicles with stretcher capacity, also a 4WD with mattracks for use in snow and snowmobiles
- 4WD Ambulances with stretcher capacity
- Rescue Vehicles
- Rapid Response Vehicles – Motorbikes and AWD sedans
- Operational support vehicles – used by supervisors to supplement resources on scene
- Mega-Lift Ambulances.

Since 2000 Ambulance has moved to a primarily leased fleet and vehicles generally do not exceed three years in age. The 2007/08 Budget contained provision for a fleet replacement program to the value of \$8.5 million that provided for the replacement of 376 ambulance vehicles. More than 400 ambulance vehicles are expected to be replaced in 2008/09.

Risks arise in the management of bariatric patients and Ambulance currently has three mega lift ambulances based in Sydney which are used for non-emergency transports or bariatric patients throughout New South Wales. Two additional vehicles are coming on-line in 2008 which have been specially designed to transport bariatric patients weighing in excess of 180 kgs or who have a girth that is too large for a normal ambulance stretcher. The new vehicles have hydraulic access ramps which will carry a specially designed stretcher fitted with a scissor-like hydraulic lifting system: this means that no exertion is placed on paramedics when they load or unload patients.

Ambulance also has a Mega Lift Wheel Chair Bus (a bus which has undergone major modifications) which means patients can remain seated in a wheelchair during the journey. Allowing a patient to remain seated in a wheelchair reduced the manual handling risks for paramedics.

All Paramedics are given manual handling training and this training has led to a significant reduction in manual handling injuries over recent years. Special training is provided to paramedics using the Mega Lift vehicles. Additional training is being developed to meet the requirements of the new Mega Lift vehicles.

7.7 Reducing the Risk of Vehicle Accidents

Since 2004 Paramedics have received Low Risk Driver Training as part of their induction to Ambulance. The training is also offered to paramedics as part of the ongoing education program for the certificate to practice and is used to train qualified Paramedics where driving issues have been identified.

The driving skills of applicants are checked through licence and police checks, and a pre-employment driving assessment. New trainees are required to hold a light rigid vehicle driver's licence and applicants who demonstrate unsafe or poor driving skills are rejected.

Low Risk Driving Training focuses on the risk factors that lead to motor vehicle crashes and for officers to actively reduce these risk factors and drive safely particularly during emergency driving. During on-road training, paramedics practice low risk driving with an ambulance training officer.

The Low Risk Driver Training program includes a ten day self coaching period and qualified Paramedics supervise trainees during the self-coaching period.

The Low Risk Driver Training program has contributed to a reduction in crash rates for Ambulance vehicles since 2004: other factors include newer vehicles in the Ambulance fleet and the introduction of the medical priority dispatch system.

8 Demand Management and Efficiency Improvement Strategies

The general trend of increased demand for emergency hospital services and ambulance services is outlined previously. Under the traditional ambulance service model, all “000” calls receive an ambulance response and all patients identified are transported to hospital unless assistance is refused.

Demand for ambulance services has always included a proportion of calls that for various reasons are not medical emergencies and do not require an ambulance. For example the circumstances confronting the caller may be such that they genuinely believe an ambulance is required but within a brief time or following assessment by paramedics it is clear that there is no medical emergency and an ambulance is not needed.

As demand increases a number of demand management strategies have been introduced or are being developed to ensure appropriate priority is afforded serious incidents and to ensure ambulance resources are used as efficiently as possible.

8.1 Recent Strategies to Manage Demand

8.1.1 Prioritisation

Medical prioritisation of all “000” emergency calls was introduced in 2005. The change brought NSW in line with ambulance services in Australia and overseas.

The Medical Priority Dispatch System uses a structured assessment to identify time critical conditions and provide callers with appropriate first aid advice and instructions prior to the arrival of an ambulance. The computerised dispatch system enables an ambulance to be dispatched while the caller is still on the line and additional information is obtained and advice provided.

This system allows priority to be given to potentially life threatening cases and for the response to cases that are not time critical to be undertaken under normal driving conditions, improving the safety for paramedics and the general driving public.

Since the introduction of medical prioritisation, Ambulance Service of NSW response times to life threatening cases have improved and are now comparable with other ambulance services in Australia.

A review of the Medical Priority Dispatch System has been undertaken in 2008 by clinical experts which has increased the focus and relative priority to be afforded to time critical conditions and serious emergencies. Consistent with the 2008 Review, to ensure these improvements continue and resources are matched to patient presentations, the Ambulance Service will review the Medical Priority Dispatch System on a regular cycle based on latest available clinical evidence and feedback from ambulance staff. Two more rounds of reviews will be completed by mid 2009.

8.1.2 Deployment of Ambulances

Historical roster patterns in NSW and most other ambulance services provided an even spread of paramedics across hours of the day and days of the week.

The Ambulance Service has instigated roster reform in the Sydney Division and some rural areas to provide a better match between rosters and demand patterns. In consultation with the Health Service Union, rosters in Sydney were adjusted to include afternoon shifts allowing more staff to be rostered to the busy afternoon and evening periods instead of the quieter early morning times. In rural areas a number of on-call rosters have been replaced with on-

duty arrangements resulting in improved service coverage. These improvements have also reduced officer fatigue and service costs from over reliance on on-call staff.

8.1.3 Tiering of Ambulance Resources

Tiering of ambulance services enables resources to be allocated to specific roles and provides significant efficiencies and improvements to the quality of services in larger urban environments. Ambulance services in major developed cities around the world operate a specialised emergency response tier and either operate or work in conjunction with a specialised patient transport service for non emergency patients requiring stretcher transport but not the acute care skills and equipment of paramedics.

In Sydney the emergency response tier comprises emergency ambulances able to transport patients and single officer rapid response vehicles to deliver early patient assessment and clinical interventions. Rapid responders were first introduced in 2001/02 and have gradually been expanded. Currently, between 10 and 12 rapid responders operate in Sydney each day and similar arrangements have been introduced in Wollongong. Rapid responders provide a significant additional benefit to emergency response performance, estimated at 1-2 minutes overall improvement.

In Sydney, Central Coast, Newcastle and Wollongong a limited non-emergency patient transport tier has been established. The Patient Transport Service was significantly expanded in 2001/02 and has subsequently grown to 140 staff.

Future strategies focused on tiering of ambulance service resources identified by the 2008 Review are outlined at 8.3.1.

8.1.4 Transfer to Emergency Departments

Ambulance response time, particularly in metropolitan areas, is directly affected by vehicle availability. In recent years, one of the key factors to vehicle availability has been the time taken to offload patients at emergency departments. Deteriorating off stretcher times in 2002 and 2003 prompted a review of the previous system of diverting ambulances away from emergency departments when a hospital was busy. During busy periods, this approach often resulted in a domino effect across the network of emergency departments in Sydney as successive hospitals called for ambulance diversions. The resultant increase in travel times and hospital delays had a significant impact on response capability.

In 2005 the Ambulance Service worked closely with Sydney hospitals to develop the patient allocation matrix and associated technology, which now distributes emergency patients across the network of emergency departments according to clinical need and previously agreed emergency department capacity. The matrix, in conjunction with other health system redesign projects, substantially reduced off-stretcher times for ambulances at emergency departments in 2005 and 2006. However, in 2007 growth in demand once again started to challenge off-stretcher times and reduce ambulance responsiveness.

8.1.5 Community First Responders for Rural Locations

In order to ensure access to timely emergency pre-hospital care for rural communities that are located greater than 20 mins response time from the nearest ambulance station, the Ambulance Service has joined with the State Emergency Service, Rural Fire Services and NSW Fire Brigades to establish community first responder schemes.

Community first responders are trained to provide early interventions while awaiting the arrival of ambulance paramedics. Pilot sites have been developed at eight locations¹⁸ to enable the Ambulance Service to fully assess the level of training and support infrastructure required to maintain these services effectively. Once this assessment is completed, community first responders will be included in future service delivery planning and considered alongside other service development priorities.

8.2 New Service Delivery Models

Traditionally the role of ambulance services has been to deliver patients requiring emergency treatment to an emergency department at a hospital. However, many calls to “000” are for treatment of minor illness or injury, for advice, for reassurance or for social reasons. Approximately 20% of ‘emergency’ contacts result in non-transport. An emergency department may not be the most appropriate destination for some patients, particularly elderly patients or patients with chronic illnesses who require unscheduled care, however it is currently often the only option.

The NSW Health system faces a number of challenges including an increasing demand for emergency department services; increasing demand and costs associated with the rise in chronic illness; pressures posed by: an ageing population; increased community expectation of the health system; and increased access to highly-specialised treatments using new technologies.

A significant proportion of increasing demand continues to come from the frail, the elderly, and those with chronic disease. The demand is highest through the emergency department portal of entry to hospitals, using the ambulance system as the transport mode.

Alternative entry points into hospitals and community based care are currently in development by NSW Health as are strategies to increase the capacity to deliver community based care.

The Ambulance Service is also now required to develop new systems of care to address rising demand and to ensure patients are directed to the most appropriate place for ongoing care.

Three new practice models have been developed. The first two provide paramedics with more options for clinical assessment and referral of their patients. The third model provides appropriate patients with advice and alternative care options over the telephone through the Health Access Coordination Centre.

8.2.1 Extended Care Paramedics

The Extended Care Paramedic (ECP) program is being developed as a proof-of-concept pilot project in conjunction with the NSW Health Clinical Services Redesign Program.

ECPs receive additional training to assess, treat and discharge a patient for a range of common non-acute clinical presentations. Patients are frequently not transported to an emergency department and instead are referred to an appropriate service within the Health system for follow-up within designated timeframes. The concept depends on a high level of integration with area health services.

Twelve ECP positions have been established in the Sydney West Area (servicing the Nepean Hospital catchment) and four more will soon be trained at Port Macquarie and Forster-Tuncurry.

¹⁸ Tambar Springs, Trangie, Manilda, Mount Wilson, Sofala/Turon, Trundle, Deepwater, Nundle

Early indications suggest that 40-50% of ambulance patients seen by an ECP could be diverted from emergency departments and would lead to a reduction in the order of 20-30% in patients transported to EDs. Early data shows that the re-representation rates may be no more or less than the re-representation rates for patients discharged from hospital emergency departments.

Figure 17: Projection of potential reduction in ambulance patients conveyed to EDs

Number of Cases(per day)	Non-transport rate (%)	Increase in Non-conveyed patients (per day)	Reduction in ED presentations (Annually)
10	40	2	730
10	50	3	1,095
20	40	4	1,460
20	50	6	2,190
30	40	6	2,190
30	50	9	3,285

Source: Ambulance Service of NSW

Analysis of the utility of the ECP practice concept and optimum mix of ECPs and paramedics will be part of a comprehensive evaluation of the pilot program over the next six months. Ultimately, there will be a limit to the number of ECPs that could be added to the response profile of the Ambulance Service. This is due to lengthy training time-lines (approximately 1,000 hours) and access to a pool of suitable applicants (not all paramedics will want to become ECPs). Sufficient numbers of paramedics will also need to be maintained for emergency ambulance transports and other specialised programs.

This evaluation will measure important clinical, patient, operational and health economic outcomes of this model of care and will follow up patients who have consented to be contacted. This clinically focused evaluation of outcomes has not been reported by any other ambulance jurisdiction with similar models of care and it will probably be the most comprehensive undertaken anywhere.

8.2.2 Clinical Assessment and Referral (CARE) Program

The CARE program is a short training program for paramedics engaged in regular emergency ambulance duties. The aim is to increase the safety of decision-making in non-transport situations encountered by emergency ambulance crews.

CARE is based on the development of clinical pathways for selected clinical presentations that may be appropriate for non-emergency department based care.

In the pilot program, clinical pathways have been developed for seven relatively common presentations where paramedics may consider advising patients on care alternatives other than transport and assessment at an emergency department.

The CARE program will also be subject to close evaluation and assessment and the range of clinical pathways developed may be expanded.

In 2007/08, 200 paramedics will receive CARE training in Western Sydney and the Central Coast. Based on current projections and capacity, approximately 10% of the paramedic workforce will have received CARE training by mid 2009. Subject to evaluation outcomes,

elements of CARE training will also be integrated into in-service training and general paramedic education.

8.2.3 Health Access Coordination Centre

The Health Access Coordination Centre (HACC) is a telephone health advice centre within the Sydney Operations Centre which employs experienced nurses and paramedics to give telephone advice to “000” callers assessed as non-acute cases. The primary role of the HACC is to provide a secondary triage of non-acute emergency calls and, if appropriate, to call off the responding ambulance.

In 2007 HACC provided additional advice to 30,600 callers. In approximately 1,811 of these, the patient decided they did not need an ambulance or an immediate trip to hospital.

Plans are underway to increase the number and range of calls presented and for the HACC to support the ECP and CARE programs by providing immediate assistance to paramedics to support clinical decision making and in identifying alternative clinical pathways for patients.

While Area Health Services are working to establish “single points of access” and local service directories, the HACC is well positioned to triage referrals and activate an emergency response should this be required and to identify and facilitate the most appropriate referral options on a state-wide basis 24 hours per day.

8.3 Future Directions

8.3.1 Non-Emergency Transport Reform

Ambulance planning studies demonstrate that further tiering of operations will decrease utilisation rates and improve response times by reducing or eliminating the amount of time emergency ambulances are unavailable to respond to emergency cases due to non-emergency patient commitments. Importantly, effective tiering in Sydney will also reduce or eliminate occasions where booked patients are kept waiting for transport because of an influx of emergency calls.

As outlined above, considerable work has been undertaken in developing arrangements for non-emergency transport services. The NSW Health Transport for Health Policy introduced in 2006 sets out a framework for coordination of health related transport and single points of access for transport services within each Area Health Service. To date, many of these initiatives focus on ambulant patients or routine patient transports planned in business hours.

Further review is required to identify how non-emergency transport services are operating across the public health system, including the level of service provided by Area Health Services, to determine opportunities for further reform necessary to provide the most cost and service effective way of delivering these services for the future. This includes determining what role emergency capable ambulances should continue to play in non-emergency transport given the imperatives to manage increases in demand and improve emergency response times, as well as the scope for expanded use of more cost-effective forms of non-emergency transport.

As indicated on page 1 of this submission, a review of non-emergency patient transport will be undertaken to enable tiering of resources to be fully supported. In line with recommendations of the 2008 Review, NSW Health will prioritise the review in the coming year to:

- describe the non-emergency patient transport service system by classifying the different transport types associated with existing service providers and patient presentations across NSW (including air transport);
- describe the attributes of an efficient non-emergency patient transport service system by identifying good practice models;

- estimate the overall size of the non-emergency patient transport market in NSW including the development of a number of scenarios forecasting possible market growth over 5-10 years;
- review the existing eligibility criteria and processes to authorise, arrange, and fund non-emergency patient transport by registered health professionals in NSW;
- review the governance structure, capacity and efficiency of the existing Patient Transport Service within the Ambulance Service;
- assess costs, benefits and risks of expanding the Patient Transport Service to meet expected market demand;
- review the current and future arrangements for an expanded Patient Transport Service within the Ambulance Service, including possible contractual arrangements, dispatch procedures, service planning, accommodation and station infrastructure, staff recruitment and training needs, and linkages to the Transport for Health policy of NSW Health; and
- assess the potential for any contestability in the provision of non-emergency patient transport service, including barriers to market entry and any regulatory issues that would arise from the entry of any new providers into the market.

The review will be undertaken by an independent consultant and will be structured to obtain the best available estimate of current and future demand; determine the appropriate business model for delivering the required services and, as part of the review or subsequent to it, will see a plan for implementation of proposed changes developed.

A steering committee will be established to oversee the review. It will comprise NSW Health including the Ambulance Service, Department of Premier and Cabinet, and NSW Treasury. Detailed consultation will be undertaken with Area Health Services and other key stakeholders, including the Health Services Union.

8.3.2 Paramedic Training

Arising from the significant developments in the complexity, diversity and professional responsibilities of paramedic practice is a growing trend towards university education for foundation qualification for all paramedics.

In most countries, foundation training is largely undertaken in the tertiary sector with significant pre-employment or internship arrangements to ensure students are “work ready” upon graduation. Both Victoria and Queensland have entered arrangements with universities and in NSW approximately 20 graduates with the Degree in Paramedic Practice, mostly from Charles Sturt University, join the Ambulance Service graduate entry program each year.

However, there is currently some variability across university based qualifications in Australia and a number do not meet employer requirements for current and future paramedic practice. The Council of Ambulance Authorities has, with the assistance of the main university providers, developed a system of course accreditation that is currently being trialled and will be used in the future by all Australian ambulance services to improve consistency in the quality and content of paramedic courses. The Ambulance Service will continue to contribute to the Council’s accreditation of tertiary courses program.

In NSW the Ambulance Service is also working directly with Charles Sturt University to improve the alignment of their course with Ambulance needs with a view to them taking on a greater amount of undergraduate training in the future. By mid 2009, the Service and University will have finalised a proposal that currently is looking at having 150 graduates per year from 2010.

While intake arrangements are adequate in the short term, it is expected that current arrangements will not meet future requirements for trainee officers needed to replace the higher retirement rates predicted from the current ambulance staff age profile.

Accordingly Ambulance is moving to expand the graduate intake program to facilitate entry of recruits from associated professions, other ambulance services in Australia and overseas and with one or more universities.

The cost effectiveness of the Ambulance Service continuing to provide an entry training program will need to remain under ongoing examination as the graduate program sector matures and grows.

Currently significant ambulance education resources are committed to updating clinical skills and managing re-certification requirements, patient safety and clinical review systems for the qualified workforce. Whether it is feasible and cost-effective to source a greater proportion of these education needs from external providers will be examined by the Service.

8.3.3 Work Practice and Industrial Reform

The existing awards are considered to be outdated, inconsistent with clinical and operational changes that have occurred to date and limiting necessary future change. The current main award is based on a wage system that is supplemented by a complex system of penalty payments and allowances. In many situations this provides a direct financial disincentive for many officers to take up current and future workplace reforms which have the potential to deliver a better working environment and patient care. Priorities for reform include:

- Collapse the current pay structure which has 10 incremental levels to five levels so that officers are able to reach the maximum base rate within five years.
- Reduce reliance on payments such as meal penalties for late or disturbed meal times.
- Include more flexible work arrangements to manage surges in demand and the impact of short term absenteeism including roster reform and management of relief staff.
- Use more flexible temporary employment arrangements to support more flexible and efficient rostering arrangements.
- Improve arrangements to support paramedics in remote and isolated rural practice and to facilitate return to more popular locations.
- Introduce arrangements to facilitate a more even distribution of paramedics with specialist qualifications across the State.

The Special Case and Work Value claims, currently before the Industrial Relations Commission, provide an opportunity to challenge some of the present award constraints and to facilitate achieving some of these priorities.

Aside from the awards themselves there are numerous local agreements across the State providing for non-award arrangements in respect of matters such as minimum staffing rosters and allowance entitlements. Not only does this represent a management challenge for the employer, but it also impedes a streamlined and efficient electronic payroll system.

Achieving a more consistent approach in State-wide application of the awards would improve the efficiency of administering payroll and human resource management. The continued application and efficacy of the local agreements will be examined as part of upcoming negotiations under the NSW Government's public sector wages policy.

Ongoing dialogue with the workforce and their industrial representatives, together with workplace reform is required to fully achieve the priorities identified above.

In order to build the relationship between the Ambulance Service and the Health Services Union, the Service intends to seek a joint review of the current consultative arrangements

with the Union and develop mechanisms for more effective consultation processes in line with the 2008 Review recommendations.

Roster Reform

As indicated above, the Ambulance Service has identified the need for improved roster practices to better manage demand and has included proposals for change in its submission to the Special/Work Value Case. Consultation over new rostering proposals is occurring prior to the conclusion of this Case.

The 2008 Review also noted the need to achieve agreement with the Health Services Union on the transparent implementation of demand-based rostering which ensures that resources are matched to peaks and troughs in demand for services.

Transfers

Currently transfer applications are managed locally at the Divisional level and processes for managing transfer applications, including applications for compassionate transfers, are perceived as potentially inconsistent and lacking transparency.

In accordance with the recommendations of the Review of the Ambulance Service the Ambulance will:

- consult with the staff and unions to develop a clear and consistent transfer policies for staff seeking compassionate transfers; and
- centralise the management of transfer requests to provide greater flexibility, objectivity and transparency in the process.

The Service has also developed a proposal that will allow staff who have served two years or more in a remote location designated as being hard to recruit to priority for lateral transfer to vacancies at the same level in more popular locations.

8.3.4 Infrastructure and Technological Improvements

Section 1.7 summarised the Ambulance Asset Strategic Plan now being finalised. This includes the following significant new improvement strategies.

(i) Sydney Infrastructure Project

The Ambulance Service has developed a new deployment concept for Sydney that will provide the basis for more efficient and flexible deployment of all ambulance units for the future.

Significant staffing increases in Sydney over recent years have placed strains on existing station infrastructure. While a number of stations have been replaced or renovated and capacity increased, more substantial reform is required to provide effective ambulance coverage in light of changing demography, population centres and travel patterns.

Ambulance Service planning studies show that without reform, congestions, over utilisation and sub-optimum locations of some Sydney stations will contribute significantly to deteriorating ambulance response performance over the next 5 to 10 years. The Sydney Infrastructure Project is based on developing a network of host and satellite stations over three to four years. The network would require accelerated capital investment during this period to upgrade and redevelop most Sydney stations and would be expected to generate substantial operational efficiency and staff benefits.

It is anticipated that this initiative will raise staff morale, improve staff management and the effectiveness and efficiency of operational deployments. The availability of ambulances in high demand areas would be improved as will response times and additional benefits would

accrue to staff through better located purpose built facilities with better amenities and training facilities.

The proof of concept has been endorsed by NSW Health and a detailed business case analysis is now in preparation. Staff will be extensively consulted as part of the business case development.

(ii) Electronic Patient Health Care Records

The Electronic Patient Record will provide a linkage between ambulance medical records and other parts of the health system. This will significantly improve clinician access to case information for emergency cases and patient safety and quality reviews as well as allow care plans to be developed and utilised for community based care options. The Electronic Patient Record project will facilitate a number of demand management strategies and improve effectiveness and information for activities such as billing, trend analysis and researching improved medical procedures.

Funding for the project has been included in the proposed Ambulance capital expenditure plan for 2008/09.

8.3.5 Corporate Services Reform

NSW Health has embarked on a program of corporate services reform with the rationalisation of a range of corporate and business services through the establishment of a shared services business entity HealthSupport.

The 2008 Review reported that the corporate services at the Ambulance Service could benefit from updating, for example manual processes used for transactional activities such as payroll. The Review recommended that corporate service functions within the Ambulance Service be consolidated and that the efficiency of corporate service functions could be improved by using a range of shared services operated by NSW Health.

In response, the existing corporate services structures in the Ambulance Service will be reviewed in the next six months and longer term milestones in relation to the Health Shared Services Program determined.

8.3.6 New Community Engagement Strategies

In recent patient surveys by the Ambulance Service 98-99% of the community have expressed a high regard for the Service. The Service actively seeks community and consumer recognition and involvement through initiatives such as "Life, Live it, Save it" cardiac education for over 55s, promoted through community clubs.

In August 2007 the Ambulance Service of NSW participated in a national triple zero education campaign (the first national campaign since 1999) which aimed to build awareness of triple zero and educate the community about appropriate use. Using television, radio, newspapers and the internet the campaign message was that triple zero should only be used to connect callers to the nearest emergency service and that triple zero callers must 'stay focused, stay relevant, stay on the line'.

Elements of the campaign were adapted for culturally and linguistically diverse communities throughout Australia.

A television campaign also targeted children. The NSW campaign "*Be an Ambulance Hero, dial Zero, Zero Zero*" which featured a song written and performed by the Hooley Dooleys (a children's entertainment group) was adapted into a television commercial.

Current communication mediums used by other Ambulance Services and emergency service agencies will be reviewed with development and implementation of community campaigns to reduce unnecessary requests for ambulances and promote the effective use of Ambulance resources. It is hoped that this will assist with management of demand on ambulance resources and staff.

Consistent with the 2008 Review, the Ambulance Service will work to develop further public communication strategies. Campaigns will promote the effective use of triple zero for life threatening events and could also ensure that the public are aware of the fees payable for ambulance attendances and raise public awareness of the dangers of hoax calls in terms of diverting valuable ambulance resources.

9 Legislative Arrangements

9.1 Current Situation

The legislative provisions for ambulance services in NSW are contained in Chapter 5A of the *Health Services Act 1997*. These provisions were largely carried over from the former *Ambulance Service Act 1990* when that Act was repealed in 2006 and are based on an historical perspective of ambulance services.

As outlined earlier in this submission, future ambulance services will be characterised by a greater delineation between certain roles and functions. The non-emergency transport function is becoming distinct from the emergency response operations. Many hospital and health services are now also providing non-emergency transport services.

The current legislative framework gives the Ambulance Service of NSW a statutory monopoly on transporting sick or injured patients for “fee or reward”. The legislation does not distinguish between emergency and non-emergency services.

9.2 Experience in Other States

The most recent ambulance legislative reviews occurred in Queensland 2002-03 and Victoria in 1998-99. The *Ambulance Services Act 1986* (Victoria) and the *Ambulance Service Act 1991* (Queensland) were similar in structure to the *Ambulance Services Act 1990* (now under the Part 3, Chapter 5A of the *Health Services Act 1997*) and the *Ambulance Services Regulation 2000* (NSW).

In Queensland and Victoria the Government responses were to support the maintenance of emergency ambulance services as a function of government and to protect the monopoly on emergency ambulance services. This support is on the basis that to allow private providers to enter the marketplace could expose the community to the inherent danger of provider failure. The reviews considered that it would also be virtually impossible to develop contractual arrangements to ensure access to appropriate levels and standards of service for the community in relation to emergency ambulance services.

The provision of emergency ambulance services is a high cost operation with minimal return particularly in rural and remote areas. Governments did not want to diminish the public recognition of availability and reliability of ambulance services gained over time and believed that the objectives of public safety and confidence could only be achieved if emergency ambulance services remain as public services.

The reviews resulted in the repeal of legislation in Queensland and the introduction of the *Community Ambulance Cover Act 2003*. Victoria did not change the legislation but the Ambulance Service has established a number of contractual arrangements with private providers for non-emergency ambulance services – particularly inter-hospital transports.

Performance Review

Ambulance Service of NSW

June 2008



New South Wales Government
Department of Premier and Cabinet

Performance Review Unit

Inquiries concerning this report can be directed to:

Mr Frank Greathead
Performance Review Unit
Department of Premier and Cabinet
GPO Box 5341
SYDNEY NSW 2001
Telephone: (02) 9228 4802
Facsimile: (02) 9228 3075

The Performance Review Unit undertakes a range of agency and program reviews including major structural reviews involving multiple Government agencies, or a specific agency or functional area. The unit is accountable to the Director-General, Department of Premier and Cabinet and has a reporting relationship to the Secretary, NSW Treasury and the Cabinet.

This report was edited by Mr Michael Clarke and printed by Digital Data Imaging Service Pty Ltd.

You may copy, distribute, download and otherwise freely deal with this work for any purpose, provided that you attribute the Department of Premier and Cabinet as the owner. However, you must obtain permission if you wish to (1) charge others for access to the work (other than at cost) or (2) include the work in advertising or a product for sale.

This document has been prepared by the Department of Premier and Cabinet of NSW for general information purposes. While every care has been taken in relation to its accuracy, no warranty is given or implied. Recipients should obtain their own independent advice before making any decisions that rely on this information.

© State of New South Wales through the Department of Premier and Cabinet, 2008.

ISBN: 978-0-7313-3381-3

Published June 2008

Review of the Ambulance Service of NSW

Contents

Glossary of Terms and Acronyms	i
Figures and Tables.....	v
1. Executive Summary.....	1
1.1 Key Findings	4
2. Recommendations.....	9
2.1 Streamlining operations to manage demand growth	9
2.2 Working with the community	10
2.3 Improving culture and staff morale	11
2.4 Strengthening governance and business systems	13
2.5 Strengthening and focusing the workforce	13
3. The Review Process.....	15
3.1 Terms of Reference.....	15
3.2 The Review Team	16
3.3 Review Methodology.....	17
4. Overview of the Ambulance Service of NSW.....	19
4.1 Functions and place in the NSW Health system structure.....	19
4.2 Funding	21
5. Current Operating Environment.....	26
5.1 Progress in implementing the findings of earlier reviews.....	26
5.2 Activity levels.....	27
5.3 Performance.....	32
5.4 Demand pressures.....	34

6. Resources and Budgeting	39
6.1 Current resources and utilisation.....	39
6.2 Costs of services – financial efficiency	39
6.3 Capital	42
7. Demand Management Approaches	44
7.1 Introduction	44
7.2 Tiering the Ambulance Service	45
7.3 Review of dispatching procedures and systems	48
7.4 Alternative care models.....	51
7.5 Educating the public about the Ambulance Service	57
7.6 Pricing	58
8. Corporate Governance	60
8.1 Structure and accountability	60
8.2 Control environment and decision-making	61
8.3 Business systems and processes	63
8.4 Performance management.....	66
8.5 Advisory Council.....	68
8.6 Relationship of the Ambulance Service with NSW Health.....	69
8.7 Relationship of the Ambulance Service with other agencies	70
9. Workforce Management	72
9.1 Workforce profile and staffing.....	72
9.2 Staff deployment and relief levels.....	74
9.3 Appointment and transfer	76
9.4 Industrial arrangements.....	78
9.5 Organisational health – OH&S, counselling, staff support.....	79
9.6 Future directions – wage case	82

10. Education and Training.....	84
10.1 Initial training/graduate entry	84
10.2 Clinical services focus of the service, now and into the future	85
10.3 The culture of clinical practice	86
10.4 Inappropriate use of ambulance resources by the public	88
10.5 Organisational alignment with NSW Health.....	90
10.6 Registration and certification of ambulance paramedics	91
10.7 Career paths and options	93
10.8 Research program.....	94
11. Specific Issues.....	97
11.1 Complaints handling and grievance procedures	97
11.2 Rescue function.....	100
11.3 Service planning.....	102
11.4 Change management practices	104
12. Submissions	105
12.1 List of submissions received	105
12.2 Ambulance Service of NSW	105
12.3 Health Services Union.....	106
12.4 United Services Union.....	107
12.5 National Patient Transport Pty Ltd.....	107
Attachment 1: List of Stakeholder Consultations	109
Attachment 2: Select Bibliography.....	110
Attachment 3: Previous Reviews of the Ambulance Service	112

GLOSSARY OF TERMS AND ACRONYMS

A&E	Accident and Emergency
ACAP	Australian College of Ambulance Professionals
ACPHR	Australian Centre for Pre-Hospital Research
Acuteness	(Acuity): Having a rapid onset and following a short but severe course: acute disease; afflicted by a disease exhibiting a rapid onset followed by a short, severe course.
AEC	Ambulance Education Centre
AHS	Area Health Service
ALS	Advanced Life Support. A classification of Ambulance Service paramedic.
Ambulance Service	Ambulance Service of NSW
ATS	<p>Australasian Triage Scale. A five point scale used by hospital-based emergency services to rate clinical urgency. The maximum patient waiting time for each of the scales is as follows:</p> <ul style="list-style-type: none"> ▪ ATS 1 - Immediate ▪ ATS 2 - 10 minutes ▪ ATS 3 - 30 minutes ▪ ATS 4 - 60 minutes ▪ ATS 5 - 120 minutes <p>The scale is not comparable with the priority rating used by the Ambulance Service.</p>
CAA	Council of Ambulance Authorities. The CAA is the peak body representing the principal statutory and other providers of ambulance services in Australia, New Zealand and Papua New Guinea.
CAD	Computer Aided Dispatch
CARE	Clinical Assessment and Referral Program. Enhanced training for Ambulance Service paramedics to assist them to identify appropriate patient conditions for alternative methods of treatment and avoid transporting patients to hospital.
CISP	Capital Investment Strategic Planning
COAG	Council of Australian Governments

CSU	Charles Sturt University
CTO	Clinical Training Officer
DPC	Department of Premier and Cabinet (NSW)
DVA	Department of Veterans' Affairs (Commonwealth)
ECP	Extended Care Paramedics. A pilot program operated by the Ambulance Service to treat and discharge patients with low acute or chronic conditions.
ED	(Hospital) Emergency Department
EDIS	Emergency Department Information System
EDL	Essential Deployment Levels. The minimum number of staff rostered (or available) to cover a geographical area.
EFT	Equivalent Full-Time (alternative to FTE)
FRV	Fast Response Vehicle - a solo responder in a car or motorcycle primarily used to respond to serious emergency calls.
FTE	Full-Time Equivalent (alternative to EFT)
HACC	Health Assistance Coordination Centre, a Sydney-based call centre service operated by the Ambulance Service to provide clinical advice for patients and paramedics.
HR	Human Resources
HSU	Health Services Union
ICT	Information and Communication Technology
Incident	An incident is a call to a specific location for ambulance assistance or treatment.
IPART	Independent Pricing and Regulatory Tribunal (NSW)
IRC	Industrial Relations Commission (NSW)
LAS	London Ambulance Service
LM&CO	Late meal and call off – penalties paid to Ambulance Service paramedics for delayed or interrupted meal breaks.
MAS	Metropolitan Ambulance Service (Melbourne)
MIC	Major Industrial Case. A 'work value' hearing for ambulance workers by the IRC commencing in May 2008.

MOU	Memorandum of Understanding	
MPDS	Medical Priority Dispatch System. A call triaging system (ProQA) used as a component of the Computer Aided Dispatch by the Ambulance Service.	
NEPT	Non-Emergency Patient Transport	
NSWFB	NSW Fire Brigades	
PC	Productivity Commission	
Priority	A system of (MPDS) codes that inform the type of ambulance response.	
	P1A - P1C	Urgent emergency (Hot response – lights and sirens)
	P2A – P2C	Emergency (Cold response)
	P3	Medical Case (Transport time determined by booking clinician)
	P4 - P7	Routine Case (Arrive at appointment within 30 minutes)
	P9	Aero-medical (Arrive in line with aircraft times / also used for major incident transports)
ProQA	A proprietary emergency medical dispatch software package used by the Ambulance Service and most modern ambulance services.	
PSCU	Professional Standards and Conduct Unit. A unit within the Ambulance Service that manages allegations of staff misconduct and serious complaints.	
PTS	Patient Transport Service. A tier of the Ambulance Service that provides non-emergency patient transport.	
QAS	Queensland Ambulance Service	
Response	A response involves an individual ambulance resource being sent to an incident. The number of responses exceeds the number of incidents because more than one ambulance may attend an incident.	
RFS	Rural Fire Service	
RRV	Rapid Response Vehicle – an alternative term for FRV.	

SCAT	Special Casualty Access Team. A team of highly trained Ambulance Service paramedics who provide expert support during rescues and play a large role in urban search and rescue: canyons, mines and patients on cliff ledges.
SEOC	State Emergency Operations Centre
SES	State Emergency Services
Tiering	Tiering is the separation of ambulance work into distinct operational streams that service emergency and non-emergency patients. Tiers in the Ambulance Service include Accident and Emergency; Rapid Responder Vehicles; and the Patient Transport Service.
Transports	A transport involves taking a patient to an ED or some other location. Where someone is transported to an ED, it is considered an emergency transport. Any other type of transport is an NEPT.
USU	United Services Union

FIGURES AND TABLES

Figure 1: NSW Health Organisation Chart

Figure 2: Ambulance Service of NSW Organisation Chart

Figure 3: Activity, expenses and revenue 2001/02 - 2006/07

Figure 4: Ambulance Service Activity Growth 2001/02 - 2006/07

Figure 5: Ambulance Incidents NSW, QLD, VIC

Figure 6: Total ED Attendances via ambulance in NSW 2003/04 - 2006/07

Figure 7: ED attendances by ambulance per triage category 2003/04 - 2006/07

Figure 8: Change in ED attendances by ambulance 2004/05 - 2006/07

Figure 9: ED attendances for ATS 4 and 5 transported by ambulance

Figure 10: Proposed Demand Management Approaches

Table 1 : Financial data for the NSW Ambulance Service and NSW Health

Table 2: Ambulance Activity 2001/02 to 2006/07

Table 3: Total Transport Activity by Ambulance Service of NSW

Table 4: Comparative response times - Emergency Code 1 cases (50th percentile)

Table 5: Multiple deployments of vehicles to incidents

Table 6: Ambulance Service Costs per Response – 2001/02 to 2006/07

Table 7: Ambulance Service Costs per Patient – 2001/02 to 2006/07

Table 8: Ambulance Service Costs per Transport – 2001/02 to 2006/07

Table 9: Debt Comparisons

Table 10: Classifications and Salary Ranges

Table 11: Responses, Staffing, Overtime and Base Salaries

Table 12: Cases of Misconduct Referred to the PSCU

Table 13: Options in relation to the Ambulance rescue function

1. EXECUTIVE SUMMARY

The Ambulance Service of New South Wales (Ambulance Service) maintains a high standard of service against a backdrop of increasing demand. It compares favourably with other jurisdictions on key measures of performance and efficiency. Clients of the service rate their satisfaction very highly. This Review focuses on improvements that will need to be made in order to maintain and, where possible, improve on current levels of performance.

The Review found that many of the challenges faced by the Ambulance Service in NSW are consistent with the experience of other Australian jurisdictions. Notably, an increase in demand above the rate of demographic change has been seen in both Queensland and in the Melbourne metropolitan area. This situation is mirrored in NSW. More work is needed to enable better understanding of the drivers of this demand, and to facilitate the development of strategies to mitigate levels of growth above the rate of demographic changes.

For instance, better utilisation of the clinical skills of paramedics would see a greater proportion of patients being treated on site, rather than always being transported to a hospital emergency department (ED). In turn, reducing unnecessary transports to EDs would result in:

- reductions in access block;
- greater convenience for patients;
- improved capacity to respond to emergency incidents; and
- efficiencies in Ambulance Service operational costs.

Typically, the approach to management of demand has been to rely solely on the addition of ambulance crews. While the quantum of resources must always be carefully assessed against actual and likely demand scenarios, the Review has found a number of opportunities to respond to demand by using existing resources differently, and by changing some work practices. For example, Ambulance Service resources could be far better matched to demand with some new arrangements for the provision of non-emergency patient transport (NEPT).

The Review has found that current arrangements for NEPT in NSW are inadequate. This issue transcends the Ambulance Service and has implications for the entire New South Wales health system. Various Area Health Services (AHS) have established their own patient transport services which are at times competing with the Patient Transport Service (PTS) operated by the Ambulance Service.

The PTS is not adequately resourced to meet the demand for NEPT, especially in Sydney. This results in emergency ambulances being used for routine patient transport work, affecting the cost structure of Ambulance Service operations without any measurable additional benefits for clients of the service. An international consultant contracted by the Review has indicated that extra capacity to improve response times for emergency ambulances can be achieved by enlarging the PTS and expanding the use of single crewed, rapid responder vehicles. Several of the significant recommendations of the Review respond to this issue and, in doing so, acknowledge the complexity involved in moving from the current operational model to a fully 'tiered' service (i.e. a service in which NEPT is not routinely done by emergency ambulances).

The current placement of the Ambulance Service within the health portfolio (rather than with emergency services) is supported. There are opportunities for the Ambulance Service and NSW Health to work more closely to:

- strengthen joint strategic and service planning;
- coordinate demand management strategies across the health system;
- improve patient flow at EDs; and
- deliver a new system for NEPT across NSW.

The community is supportive of the Ambulance Service but needs to be better informed about the service. An ongoing education campaign is needed so that the community:

- is able to utilise Ambulance Service resources more effectively;
- understands the role of paramedics in providing on-site treatment;
- understands under what circumstances it is appropriate to call an ambulance; and
- understands the fees for ambulance attendances.

The Review Team observed that morale across the Ambulance Service is low. Significant challenges need to be addressed by the management of the Ambulance Service to improve this situation. A review of all management and supervisory positions and current capabilities is recommended. Other management challenges include:

- improving systems and processes to resolve complaints and grievances;
- enhancing all elements of the Ambulance Service's policies and processes that relate to the prevention and management of bullying and harassment;
- improving policies and procedures relating to staff transfers; and
- improving change management processes and staff consultation mechanisms so that the relationship between staff, unions, and management is more productive.

Ambulance Service business processes, and the systems that support them generally, require updating. When compared to other NSW public sector agencies, the Ambulance Service employs too many manual processes for transactional activities such as payroll. There is scope to consolidate corporate service functions such as finance, information and communications technology (ICT), and data services within the Ambulance Service. There are also opportunities to improve the efficiency of corporate service functions by using a range of shared services operated by NSW Health.

The Ambulance Service should acquire the necessary skills and develop an internal capacity to undertake sophisticated service modelling and planning. At present, much of this work is done by external consultants with little skills transfer into the organisation. As one of the largest and busiest ambulance services in the world, the management challenges are significant. In-house skills are needed to better inform resource allocation decisions and to improve the quality of service planning, especially over the medium to long-term.

The issue of risk management within the Ambulance Service should be further reviewed. The organisation's systems and processes should be benchmarked against

best practice standards. Reforms are needed to ensure that there is an integrated risk management plan and a centralised governance function with the capacity to monitor all aspects of business risk.

The level of bad debt in the Ambulance Service is increasing, and urgent action is needed to arrest the situation to protect an important revenue stream. The Ambulance Service should assess all available options to recover debt in accordance with a hardship policy to be developed in line with Government guidelines.

Performance management within the Ambulance Service needs reform. The Ambulance Service should develop a more highly integrated performance management system that links the targets and priorities of the State Plan with those of NSW Health and of the Service. All staff should have individual objectives and their performance should be reviewed regularly by a supervisor. These objectives should show direct linkages to the business and operational plans of the organisation.

The workforce of the Ambulance Service needs to be more efficiently allocated and rostered to match demand more closely. A number of local agreements between management and unions restrict efficient resource allocation. The base pay of Ambulance Service paramedics is better than or comparable with that in other jurisdictions, but overtime and allowances make up a disproportionate amount of take home pay. Further reform in this area is required and is being pursued by the Ambulance Service.

There are limited incentives for staff to apply for management positions. There is some evidence of a culture which pits managers against frontline paramedics. Improvements to the performance management framework, supported by better development of managers and improved grievance processes, should go a long way towards addressing these cultural issues.

Workforce planning should be strengthened to ensure that the Ambulance Service's long-term needs are met. The Service has recognised that more work is needed to develop its managers and is finalising a workforce development plan which should aid career-planning opportunities. The educational requirements on new paramedic recruits (and existing staff) should be communicated in a new policy.

The Ambulance Service is the only service in Australia that maintains a rescue function, shared with other agencies and volunteer organisations. Rescue is not a core function for the Ambulance Service and it is recommended that it be relinquished.

Although the Review has identified several areas for improvement, the Ambulance Service has much of which to be proud. The organisation has managed to maintain good levels of service to the community against ever-increasing demand. The work of a paramedic often involves caring for the most disadvantaged members of the community and paramedics often witness horrific trauma. Staff have genuine passion and commitment to the maintenance of high standards of care for the community. The recommendations of the Review aim to build on those strengths while, at the same time, focusing the Ambulance Service's attention on those things that require attention in order to maintain or improve the organisation's performance.

The Review Team acknowledges the assistance of staff and management of the Ambulance Service in conducting the Review.

1.1 Key Findings

Current operating environment

- In recent surveys, 98-99% of the community have expressed a high regard for the Ambulance Service.
- The recommendations of previous reviews of the Ambulance Service (conducted between 2001 and 2007) have largely been implemented. Minor exceptions are documented in this report.
- There has been an increase in demand for ED attendances. Demographic changes account for about 3.4% per annum of this growth since 2002/03. However, in the past three years, transport to EDs by ambulance has increased by about 8% per annum.
- The drivers of this demand increase are not well understood.
- To date, the Ambulance Service has responded well to this growth, i.e. response times have remained generally stable and compare well with other comparable jurisdictions.
- In the face of continuing growth in demand, maintaining current response times or improving upon them will require some operational changes.
- About 40% of transports to EDs are assessed as ATS 4 or ATS 5 (patients with non-acute conditions).
- The increase in the number of transports was higher than that of incidents/responses in 2005/06 (i.e. of all ambulance attendances, a higher proportion are now transported rather than being treated in situ).
- Over the past three years, transport of lower acuity (ATS 4 and ATS 5) patients to EDs has occurred at a higher rate in NSW than in Queensland or Victoria.
- The Ambulance Service does not have publicly stated targets for emergency responses, unlike ambulance services in London, Melbourne and South Australia and many other ambulance services.
- In comparison to other ambulance services, the Ambulance Service has very limited public reporting of performance against clinical performance indicators.

Non-Emergency Patient Transport (NEPT)

- The growth in demand for NEPT by the Ambulance Service has been relatively static over the past four years.
- There is widespread support from most stakeholders for expansion of the PTS.
- The Ambulance Service has undertaken limited business analysis of the current operations of and potential for expanding the PTS.
- The PTS is not effectively coordinated with patient flows to and from hospitals.
- There is an opportunity to improve coordination of non-emergency transport across the PTS and other services provided by AHSs.

Funding and resources

- Funding for the Ambulance Service is provided through NSW Health.
- Growth in Ambulance Service funding has increased significantly, in line with NSW Health funding increases.
- There have been significant enhancements to both Ambulance Service staffing and to its fleet since 2004/05.
- Recurrent funding provided since 2002/03 has increased at a rate higher than activity.
- Compared to other Australia jurisdictions, the Ambulance Service is relatively efficient but further efficiency gains could be made.
- Fee revenue has increased by 57% since implementation of the recommendations of the IPART Review (undertaken in 2004/05).
- Bad debts have increased by 100% over the same period.

Demand Management

- Ambulance Service dispatch protocols tend to over-allocate resources relative to patient clinical needs.
- The Health Assistance Coordination Centre (HACC), a telephone advisory service, is not currently included as a discrete response option when assessing patient needs.
- There is a clear need for a more sophisticated analysis of the key drivers of demand in order to ensure appropriate response.
- Fewer than 20% of emergency transports are charged direct to the patient, while 50% of patients are exempt from fees (concession cardholders, etc.) and most others are covered by private health insurance.
- Ambulance Service fees are not strongly communicated to the community.
- The Ambulance Service has not updated its Hardship Policy in line with IPART recommendations.
- There is strong anecdotal evidence that there is a high level of inappropriate use of ambulance by the community, and that this is a growing problem.

Corporate Governance

- Reforms in 2006 that brought the Ambulance Service into NSW Health have a way to go in assisting the service to improve its business systems.
- There is an opportunity to deliver key corporate support functions in a more integrated manner through restructuring two currently separate areas, (the Corporate Services Division, and the Finance and Data Division), into a single Corporate Services Division.
- Following the 2006 reforms, it is timely for the Ambulance Service to review its risk management framework to ensure a high level of both clinical and corporate governance.

- Ambulance services are structured as part of either emergency services or health portfolios in different jurisdictions. Arguments for either can be mounted. The Review has found no case for the transfer of the Ambulance Service to the emergency services portfolio.
- There are generally solid working relationships with other emergency services.
- There is no compelling case for the Ambulance Service to retain an emergency rescue function. Other emergency services are well placed to undertake this responsibility.
- The Ambulance Advisory Council is in a transitional phase following the 2006 reforms. Its role, functions and reporting arrangements require clarification.
- Improvements can be made to strategic and operational planning, involving NSW Health, AHSs and the Ambulance Service.
- The current performance agreement between NSW Health and the Ambulance Service places too much emphasis on inputs/activities rather than on improved outcomes.

Workforce Management

- Staff have demonstrated a strong commitment to patient care, but Ambulance Service surveys and staff consultations conducted as part of this Review confirm that morale is poor.
- NSW Ambulance Officer base pay is better than or comparable with other jurisdictions.
- Overtime and penalties make up a disproportionate amount of take-home pay.
- Statewide and local agreements impede optimal staffing allocation by restricting rostering and dispatch arrangements.
- Staff, management and unions all identified the combative industrial relations climate within the Ambulance Service as ultimately unhelpful although, unsurprisingly, there were strongly different views as to the reasons for the current climate.
- There appears to have been a very solid program of reform of operations and clinical processes over a number of years, but without either the quantity or quality of internal stakeholder engagement essential for any long-term change management process.
- Improvement in change management processes and practice will go a long way towards improving morale and rebuilding trust.
- Staff were critical of both management and unions regarding the relationship between the two.
- Workforce planning is developing in the Ambulance Service but will need a stronger focus if it is to respond to the ageing of the workforce and to the different expectations of newer recruits regarding both the culture and flexibility of the work environment.
- There is no organisation-wide staff performance management and staff development system linking individual performance to corporate objectives.

- There is an increasing recognition in the Ambulance Service of the need for better preparation of first-line managers, particularly at the time of their transition from an operational role to a management role.
- The rate of sick leave in the Ambulance Service is higher on average than in both the NSW Public Sector and in the NSW Health sector (including nurses), but is comparable to that of Queensland ambulance officers.
- The Ambulance Service's workers' compensation performance has been improving.
- The Ambulance Service's workers compensation claims per 100 employees are comparable to or better than for emergency services agencies, with a lower incurred cost per claim. However, they are significantly higher than for the NSW public health sector.
- Peer support counselling and the Employee Assistance Program are both viewed positively by staff, but there is a perception that there is a lack of concern for frontline staff at periods when they are dealing with difficult incidents, or where they have problems in their private lives that require some sensitivity from management.
- Inflexible rostering practices and inconsistent relief allocations contribute to inflexible leave arrangements.
- There is widespread dissatisfaction with the way staff transfers are managed with a perceived lack of transparency and inconsistency in the way rules are applied.

Education and Training

- Other jurisdictions have adopted or are moving towards graduate entry models. NSW training is primarily in-house.
- There are financial disincentives to movement into management positions due to loss of penalties/overtime.
- The flat structure of the Operations Division limits vertical career paths.
- Management development is insufficient to meet organisational needs.
- Funding has been allocated to an Ambulance Research Centre to support evidence-based practice and long-term service planning.

Complaints Handling and Grievances

- A significant source of poor relations between staff, management and unions relates to the Ambulance Service approach to handling complaints about staff conduct, and to the management of grievances.
- Resolution of disciplinary proceedings often takes too long (with some matters remaining open for over a year).
- Disciplinary and grievance processes are not clear and, as a result, are poorly understood by management and staff.

- The Professional Standards and Conduct Unit (PSCU) is currently involved in the management of a wide range of complaints. The Review believes that it should be involved in the investigation only of allegations of serious misconduct.
- There is a lack of management skills and resources to handle grievances at a local level.
- In order to focus the PSCU work on serious complaints, a system of ‘triaging’ complaints must be developed, with clear accountabilities and processes for investigating, resolving, reporting, and (where appropriate) escalating.

Rescue

- The Ambulance Service is the only ambulance service in an Australian jurisdiction with a rescue function.
- Rescue is not a core function of the Ambulance Service.
- Utilisation of Ambulance Service rescue officers is low compared to that of other Ambulance officers.
- The potential cost savings to the Ambulance Service from the transfer of its rescue function would be limited, but, given the other demands faced by the organisation, it is timely to consider moving the rescue function to NSW Fire Brigades (NSWFB).

Service Planning

- The Ambulance Service is not adequately integrated into NSW Health’s financial resource planning.
- There is an over-reliance on external consultants to provide day-to-day business and operational analysis.
- There is a lack of medium and long-term planning in the Ambulance Service.

Business Systems and Processes

- The Ambulance Service currently uses a number of key administrative processes which require reengineering in order to improve efficiency and integrity.
- There are many manual systems (e.g. rosters, payroll, billing, procurement).
- There is a significant opportunity, through process reengineering, to reduce corporate overheads.
- In undertaking business process reform, the Ambulance Service should consider the advantages and disadvantages of shared service arrangements with NSW Health. At minimum, common platforms for financial and human resources (HR) systems should be in place.

2. RECOMMENDATIONS

2.1 Streamlining operations to manage demand growth

Recommendation 1:

That ‘tiering’ be adopted in the Ambulance Service as a means of focusing resources on greatest need (A&E demand).

Recommendation 2:

That, to support progress towards a fully ‘tiered’ service, a review of NEPT be undertaken (in collaboration with NSW Health and AHSs) with terms of reference including the following elements:

- Describe the NEPT service system by classifying the different transport types associated with existing service providers and patient presentations across NSW (including air transport);
- Describe the attributes of an efficient NEPT service system by identifying good practice models;
- Estimate the overall size of the NEPT market in NSW including the development of a number of scenarios forecasting possible market growth over 5-10 years;
- Review the existing eligibility criteria and processes to authorise, arrange, and fund NEPT by registered health professionals in NSW;
- Review the governance structure, capacity and efficiency of the existing PTS within the Ambulance Service;
- Assess costs, benefits and risks of expanding the PTS to meet expected market demand;
- Review the current and future arrangements for an expanded PTS within the Ambulance Service, including possible contractual arrangements, dispatch procedures, service planning, accommodation and station infrastructure, staff recruitment and training needs, and linkages to the *Transport for Health* policy of NSW Health; and
- Assess the potential for any contestability in the provision of NEPT services, including barriers to market entry and any regulatory issues that would arise from the entry of any new providers into the market.

Recommendation 3:

That the NEPT review be overseen by a steering committee comprised of NSW Health, Ambulance Service, Department of Premier & Cabinet, and NSW Treasury. The review is to ensure detailed consultation with Area Health Services and other key stakeholders, including the Health Services Union.

Recommendation 4:

That the Ambulance Service and NSW Health initiate a study with other jurisdictions, through the Council of Ambulance Authorities, to analyse factors beyond demographic changes that are driving increased demand for ambulance services. The study should be undertaken in close collaboration with state health departments and other key stakeholders to analyse the issues and develop appropriate demand management strategies.

Recommendation 5:

That the Ambulance Service undertake an annual review of the determinants for its dispatching procedures (MPDS) with the aim of better matching resources to patient presentations, reducing multiple deployments, and freeing up capacity to respond to genuine life threatening emergencies.

Recommendation 6:

That the Ambulance Service develop a business case for the new Sydney metropolitan infrastructure model, and pursue other efficiencies to free operational capacity to better meet demand.

2.2 Working with the community**Recommendation 7:**

That the Ambulance Service continue to improve the public reporting of its performance by:

- expanding the set of performance measures for regular reporting to include patient safety and clinical quality measures; and
- including targets in performance measures to inform the public better about how well Ambulance Service is tracking in its service delivery.

Recommendation 8:

That the Ambulance Service develop and implement an ongoing community education program promoting appropriate use of ambulances. This campaign should be designed using detailed research on Ambulance Service clients and potential clients and should seek to:

- promote effective use of Ambulance Service resources;
- reduce unnecessary requests for ambulances;
- increase acceptance in the community that paramedics are well-equipped to determine whether treatment on site rather than transport to an accident and emergency department is the most appropriate clinical response to an incident;
- ensure that citizens are well informed of the fees payable for ambulance attendances; and
- promote effective use of 'triple-0' for life-threatening events.

Recommendation 9:

That the Ambulance Service regularly report the number of hoax calls and other inappropriate calls. The Service should develop a policy and procedures dealing with the management of such calls, including the triggers for taking regulatory action. Where appropriate, the Ambulance Service should engage appropriate agencies or members of the community to work with those who have been identified as regular abusers of the Service.

Recommendation 10:

That the Ambulance Advisory Council be retained with its broad advisory function.

2.3 Improving culture and staff morale**Recommendation 11:**

That the Ambulance Service review all policies and procedures on complaints handling, grievance handling, and bullying and harassment for consistency with updated NSW Health policies. Revised processes should, at a minimum, contain the following elements:

- A clearly articulated process wherein complaints about staff (whether from other staff or members of the public or allied health professionals) are properly assessed and handled, according to clearly defined procedures, by the right people. The role of the PSCU in handling only those matters where serious misconduct has been alleged should be spelled out clearly;
- An up to date Code of Conduct, defining and prohibiting bullying and harassment by Ambulance Service staff;
- A clear policy on the Ambulance Service position on the prevention and management of bullying and harassment;
- Amended position descriptions requiring all Ambulance Service staff to comply with the Code of Conduct and related policies;
- Mandatory training for all supervisory/management positions on the policy and related procedures; and
- Information sessions for all staff in the service about the Code, related policies and procedures and their rights and responsibilities.

Recommendation 12:

That, as a means of improving the relationship between the Ambulance Service and the Health Services Union, the Ambulance Service undertake the following as a matter of priority:

- Review current arrangements for the operation of the Joint Consultative Committee;

- Prepare, as a basis for consultation with unions, draft guidelines for the management of future organisational change (including the process for change management for both clinical procedures and corporate processes); and
- Develop an agreed process for undertaking any future staff 'climate' surveys, dealing with the frequency and focus of surveys, reporting of survey findings to staff, and the process for responding to key issues raised by staff in surveys.

Recommendation 13:

That, in order to continue to promote the welfare of staff, the Ambulance Service, by the end of 2008, evaluate its program of staff support services (including the list of available programs) and take action on the findings of the evaluation by mid-2009.

Recommendation 14:

That the Ambulance Service develop, in consultation with staff and unions, a staff transfer policy that is clearly understood, is applied fairly and transparently, and provides the opportunity for feedback to staff on their applications.

Recommendation 15:

That, in order to ensure that Ambulance Service managers are well supported in undertaking their roles, the Service undertake:

- a review of all position descriptions for executive/management/supervisory positions to ensure that key accountabilities and management competencies are properly articulated against business requirements;
- an assessment of current management capabilities against revised position descriptions; and
- a training and development program to assist managers to deal with any issues raised in the assessment.

Recommendation 16:

That, taking account of the previous recommendation, Ambulance Service design and implement a management development initiative targeting those people in operational roles who wish to move into management. This initiative should focus on:

- assessing the suitability of officers to move from operational roles into management positions; and
- for suitable candidates, providing training in a number of core areas: financial management; human resource management; conflict resolution; putting the Code of Conduct into practice.

2.4 Strengthening governance and business systems

Recommendation 17:

That the Ambulance Service consolidate all existing corporate services functions (including Finance and Data Services) into a single Corporate Services Division. The existing positions of General Manager, Corporate Services and Director, Finance should be abolished and a new position of General Manager Finance and Corporate Services should be created.

Recommendation 18:

That the Ambulance Service:

- assess its governance systems against the better practice framework in the *Internal Audit Capacity in the NSW Public Sector, Final Report*;
- create a joint Audit and Risk Management Committee better to integrate the assessment of controls on identified risks; and
- benchmark the Ambulance Service current risk management systems and processes against *Australian and New Zealand Standard 4360:2004 – Risk Management*, and develop a strategy to address any deficiencies.

Recommendation 19:

That the Ambulance Service review its key financial and human resource transactional processes, with a view to optimising automation, reducing corporate overheads, and ensuring compliance with government policies. Where appropriate, ICT systems should mirror those used elsewhere in the NSW Health department. Where benefits can be clearly identified, the Ambulance Service should consider shared service arrangements with NSW Health.

Recommendation 20:

That, subject to finalising and promulgating its Hardship Policy, the Ambulance Service develop a comprehensive policy and procedures to improve performance with respect to the collection of bad debts.

2.5 Strengthening and focusing the workforce

Recommendation 21:

That the Ambulance Service establish a more highly structured performance management system comprising the following elements:

- a five year corporate plan;
- annual operational plans;
- annual performance agreement with NSW Health; and
- a staff performance and development system which links individual performance to corporate objectives.

Recommendation 22:

That NSW Health ensure that it has mechanisms in place to secure Ambulance Service inputs to its strategic and corporate planning.

Recommendation 23:

Ambulance Service reduce its reliance on external consultants by strengthening its internal capacity to undertake business analysis to optimise operations, strengthen service planning, and estimate the operational impacts of new clinical practices and major projects.

Recommendation 24:

That the Ambulance Service seek agreement with the Health Services Union on the transparent implementation of demand-based rostering that ensures that resources are matched to peaks and troughs in demand for ambulance services.

Recommendation 25:

That the Ambulance Service develop a policy by the end of January 2009 concerning the minimum educational requirements for new paramedic recruits and ongoing training needs for the existing workforce.

Recommendation 26:

That, by the end of June 2009, the Ambulance Service finalise an initial workforce plan, with development and succession planning linked to performance management for all staff.

Recommendation 27:

That the Ambulance Service rescue function be transferred to NSWFB. The Ambulance Service, in consultation with NSWFB and the HSU, should develop a transition plan (by 1 December 2008) to facilitate the transfer.

3. THE REVIEW PROCESS

3.1 Terms of Reference

In September 2007, the Minister for Health announced a Review of the Ambulance Service of NSW (the Ambulance Service) to be undertaken by the Performance Review Unit of the Department of Premier and Cabinet (DPC).

Under the NSW *Health Services Act 2007*, the Director-General of Health is responsible for the provision of ambulance services to the NSW community.

The Ambulance Service, under the leadership of a Chief Executive, is established under the *Health Services Act 1997* to discharge the Director-General's responsibilities to provide ambulance services.

The Ambulance Service has experienced significant growth in demand over the past two years, and particularly over the last twelve months. There has been a significant increase in the number of incidents in various AHSs and in relation to The Children's Hospital at Westmead.

The Minister requested that the Review examine:

- demand trends across all AHSs in NSW;
- the current capabilities of the Ambulance Service;
- options for improved service delivery within the health, aged and community care systems; and
- future funding arrangements for the Service.

On 26 September 2007, the Standing Committee on the Budget formally commissioned the Review and approved the following terms of reference:

- 1) Undertake a review of operational and management systems of the Ambulance Service of NSW.
- 2) The Review is to include an examination of:
 - i. All funding commitments that have been made since 2004/05, and what has been delivered by way of services and infrastructure, including vehicles and equipment;
 - ii. All external reviews and audits undertaken since 2001;
 - iii. The clinical services focus of the service, now and into the future, and options for demand management, including removing any current impediments to a flexible, responsive, efficient, well-trained and well-managed workforce;
 - iv. The effectiveness of current work and management practices in supporting a safe, healthy working environment, including staffing levels, overtime worked, counselling support for ambulance officers, and consultation mechanisms between management and ambulance officers;
 - v. The processes and structures to support implementation of changes in operational policy and practice;
 - vi. The effectiveness of current resources utilisation;

- vii. Any efficiencies to be gained in changing payroll systems and other administrative services and structures; and
 - viii. Career path options for ambulance officers within the Service.
- 3) Make recommendations as to any changes to the conduct, structures, processes, management, operations and funding arrangements for the Ambulance Service.
- i. To improve its capacity to maintain an appropriate level of performance in meeting and managing future increased demand;
 - ii. To ensure equitable and timely access by the NSW Community to an appropriate level of clinical services.

3.2 The Review Team

The Review was undertaken by a small team working in the Performance Review Unit of the NSW Department of Premier and Cabinet (DPC). The team was led by Mr Graeme Head, Deputy Director-General (Performance Review) in DPC, and comprised:

- Mr Frank Greathead, DPC;
- Mr John Healey, DPC;
- Mr Kent Broadhead, DPC;
- Mr Dimitrios Deligiannis, NSW Treasury.

A steering committee for the Review was established, comprising:

- Mr Graeme Head (Chair);
- Ms Karen Crawshaw, Deputy Director-General NSW Health;
- Mr Enrico Sondalini, Director, Human Services Branch, NSW Treasury;
- Mr Owen Torpy, Deputy Chief of Staff, Office of the Minister for Health.

Mr Mick Willis, General Manager, Operations in the Ambulance Service provided high-level liaison between the Review Team and the Ambulance Service.

The Review Team was supported by expert advisors:

Mr Robert McGregor AM, a former Deputy Director-General of NSW Health and former Chief Executive of the Ambulance Service. Mr McGregor was contracted as an expert advisor to facilitate a series of group consultations with Ambulance Service staff across the state.

Operational Research in Health (ORH) Limited, a UK-based management consultancy that specialises in optimising operations and resource planning for emergency services. ORH was contracted by the Review Team to identify and analyse potential operational improvements. ORH's Managing Director, Mr Mike Vicary, has worked with Ambulance Services across the UK, Singapore, Hong Kong, and New Zealand. ORH's final report¹ was an extension of previous work undertaken for the Ambulance Service.

¹ ORH Limited. Ambulance Service of New South Wales: *Emergency Ambulance Cover: Supporting the Ambulance Review - Potential Initiatives for Improved Performance*. Final Report. February 2008.

3.3 Review Methodology

The Review Team used a variety of methods to collect and analyse data before determining its key findings and recommendations. These data collection methods included desktop research, specific requests for data from NSW Health and the Ambulance Service, and interviews with internal and external stakeholders (including key Ambulance Service personnel, the HSU, and relevant professional associations).

Desktop research

Published material from a variety of sources was examined to identify better practice initiatives and future directions in the ambulance industry, and to apply operational performance benchmarks to the Ambulance Service. This material, sourced from Australian and international jurisdictions, included internal and external reviews of the Ambulance Service, annual reports, and peer reviewed journal articles from emergency service academics and practitioners.

Reports from industry bodies (such as the CAA) and the Productivity Commission's (PC) *Report on Government Services 2007* compare ambulance operations across all Australian jurisdictions. A number of benchmarks (including sources of funding, revenue, expenditure, and response times) were examined and, where applicable, were re-presented in this report².

The Review's terms of reference require an examination of all external reviews and audits undertaken since 2001. These include:

Performance Audit: <i>Readiness to Respond: Ambulance Service of New South Wales</i> . Follow-up of 2001 Performance Audit (Audit Office)	2007
Performance Audit : <i>Coordination of Rescue Services: State Rescue Board of NSW</i> (Audit Office)	2005
<i>Review of Financial Aspects of the Ambulance Service in NSW</i> . Report to the Minister for Health on Revenue and Charging Structures IPART	2005
Performance Audit: <i>Transporting and Treating Emergency Patients</i> . NSW Department of Health / Ambulance Service of NSW (Audit Office)	2004
Report of the ORH Review of Rotary Wing Services in NSW	2004
Performance Audit: <i>Code Red: Hospital Emergency Departments: NSW Department of Health / Ambulance Service of NSW</i> (Audit Office)	2003
Report of the ORH Review of Operations – Operations Centres	2002
Report of the ORH Review of Operations – Regional	2002
Report of the ORH Review of Operations – Sydney	2002
Performance Audit Report: <i>Ambulance Service of New South Wales: Readiness to Respond</i> (Audit Office)	2001

² See list of references at Attachment 2.

Consultation with internal and external stakeholders

The Review consulted with a range of stakeholders, using workshops, interviews, and surveys. Several consultations were arranged with a ‘vertical slice’ of Ambulance Service staff, including frontline ambulance paramedics, administrative and support staff, middle and senior managers, and members of the Ambulance Service Executive.

A DPC email address was established to provide Ambulance Service staff with an opportunity to contribute to the Review by identifying issues that concerned them and by suggesting improvements. Several staff provided the Review Team with comprehensive and well-considered submissions. These staff submissions provided important input into overall data collection.

A random selection of frontline staff from across NSW attended workshops with members of the Review Team. Workshops were held in Sydney (2), Newcastle, Dubbo, and Goulburn. The workshops, held without managers attending, allowed staff freely to express their views about the Ambulance Service. A final staff workshop was held in May 2008 to consider the broad findings of the Review.

Additional workshops were held with operational managers and with members of the PSCU. At the request of the HSU, a separate workshop was convened with union delegates and staff to discuss the effectiveness of current management practices used to resolve allegations of misconduct and grievances against Ambulance Service staff.

Written submissions to the Review were received from:

- the Ambulance Service;
- the HSU;
- the United Services Union (USU); and
- National Patient Transport Pty Ltd.³

The Review Team interviewed representatives from a wide range of professionals from other ambulance services across Australia, as well as from key internal and external stakeholders.⁴

³ This private sector organisation provided a submission to the review at its own volition.

⁴ See Attachment 1.

4. OVERVIEW OF THE AMBULANCE SERVICE OF NSW

4.1 Functions and place in the NSW Health system structure

The Ambulance Service is an integral part of the NSW health system, providing emergency pre-hospital care and transport, medical retrieval and health transport services. It is one of the world's busiest ambulance services. Over 1,000,000 emergency and non-emergency requests were responded to in 2006/07. This includes about 85,000 responses for the PTS.

The Ambulance Service employs over 3,700 staff in 291 locations across NSW. Formerly a separate statutory corporation, it is now a part of NSW Health.

The Service's stated purpose (or mission) is:

“As an integral part of the State's health system, the Ambulance Service of New South Wales will provide responsive, quality, emergency clinical care and support for patient transport, rescue and retrieval services.”⁵

Of the Ambulance Service's staff, 89.7% are in front-line service delivery roles, working as paramedics, ambulance officers, clinical trainers, doctors and nurses or as call-takers and dispatchers in operations centres.

The Ambulance Service operates over 1,200 vehicles. The fleet includes ambulances, patient transport vehicles, motorcycles, rapid responders, support vehicles and rescue trucks. The Air Ambulance fleet of nine helicopters and five aeroplanes is used for medical retrieval missions, rescue operations and inter-hospital transfers. These aircraft are contracted through a variety of arrangements.

The Ambulance Service has four operations centres (Sydney, Newcastle, Wollongong and Dubbo) that answer triple-0 calls and co-ordinate response for the State. The Ambulance Service runs an education centre, regional training units, administrative support offices and vehicle workshops. State Headquarters is at Rozelle in Sydney.

In 2006/07, the Service responded to 880,215 incidents, of which 453,179 were emergency incidents requiring an immediate response under lights and sirens. Demand for ambulance services has increased by 5.2% since 2005/06, and the number of emergency incidents has increased by 8.69%.

There are seasonal peaks in demand during the year - demand for ambulance services usually increase in winter. In 2005/06, the Ambulance Service provided an average of 2,885 responses per day, answering a call for assistance, on average, every 30 seconds.

The Figures 1 and 2 show, respectively, the organisational arrangements for the Ambulance Service within NSW Health, and the Service's internal structure.

The Ambulance Service is a “health services function” of the Director-General of NSW Health. It was a statutory corporation under the *Ambulance Services Act 1990* until 17 March 2006. However, the *Ambulance Services Act 1990* was repealed as part of the NSW Government's response to ‘WorkChoices’ and the major provisions were transferred to the *Health Services Act 1997*.

⁵ Source: *Ambulance Service Annual Report 2006/07*.

Figure 1: NSW Health Organisation Chart ⁶

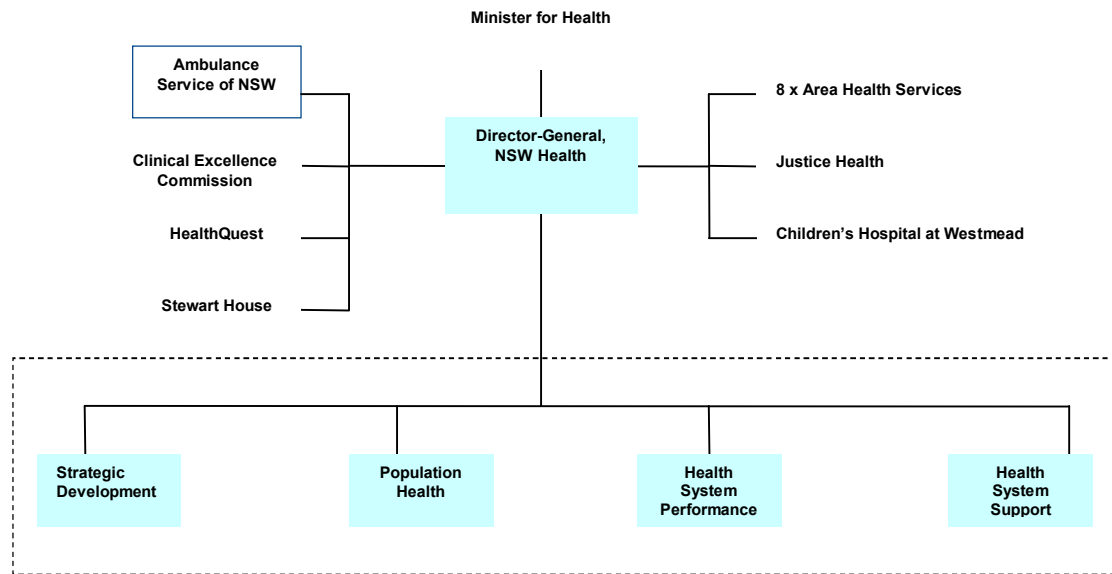
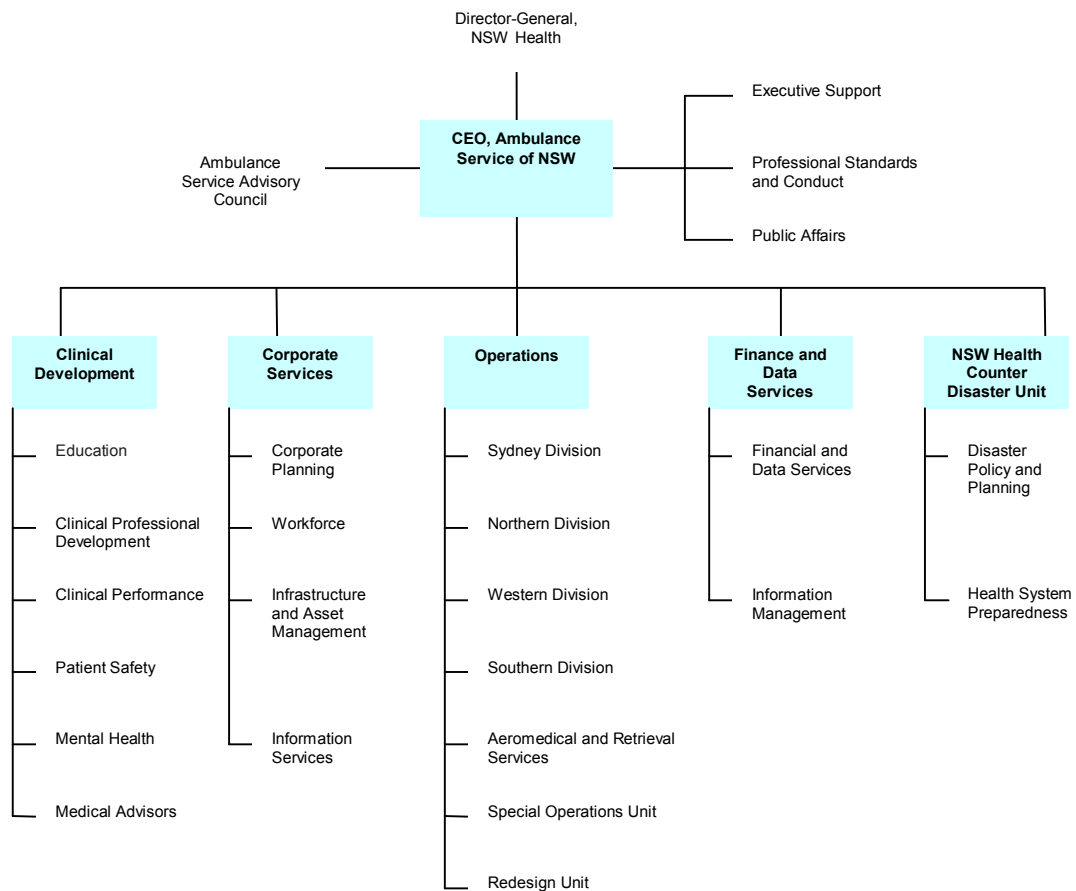


Figure 2: Ambulance Service of NSW Organisation Chart



⁶ Ambulance Service, Area Health Services, etc. work directly with NSW Health Office divisions on relevant functions/matters.

Under the *Health Services Act 1997*, the Director-General of Health has responsibility for the delivery of ambulance services. Operational and organisational management functions have been delegated to the Chief Executive of the Ambulance Service, who reports to the Director-General.

The Ambulance Service has a performance agreement with NSW Health, with the agreement aligned to the NSW Health Plan and the State Plan. The Service reports on its performance against targets on activity, staffing, health and safety, clinical quality and patient safety, and budget performance. Performance against all indicators is monitored by the Senior Executive and by the Ambulance Service Advisory Council.

The Ambulance Service delivers a statewide service using a structure that centralises clinical and corporate governance and regionalises operations. Centralised functions are based at the Ambulance Service head office in Rozelle in inner Sydney. Direct services to the community are delivered from the Operations, divided into four Divisions for road-based service: Sydney (Sydney Division), Newcastle (Northern Division), Orange (Western Division), and Goulburn (Southern Division).

The Aero-medical Services Division is based in Sydney and coordinates fixed wing, helicopter and medical retrieval services across the state, including a medical advice service and an Intensive Care Unit bed-finding service for rural doctors.

The Ambulance Service uses statewide data on emergency incidents to model demand patterns, to assist other parts of NSW Health to improve patient flow at EDs, and to reduce access block – the time between a patient’s arrival at hospital by ambulance and admission to the ED.

The dedicated PTS was introduced in 2003 in response to rapidly growing demand for non-urgent transfers of patients between hospitals. The PTS vehicles provide planned inter-hospital transports and improve the Ambulance Service response to emergency and urgent cases by reducing demand on emergency ambulance resources.

More recently, separate transport services have been established as stand-alone transport services outside the control of the Ambulance Service. These services are funded and managed by individual hospitals, or by AHSs. The demand for the PTS service provided by the Ambulance Service has not grown as a result.

4.2 Funding

NSW Health is the recipient of funding for the Ambulance Service, all AHSs, and other health bodies. The Department determines an annual level of funding for the Ambulance Service and once that allocation has been made, the funding is essentially locked in. Changes to the overall level of funding to the Department have generally been reflected in the Ambulance Service’s funding.

In 2006/07, expenses for the Ambulance Service were \$452 million - an increase of 9% on the previous year. The recurrent Consolidated Fund contribution for 2006/07 was \$308 million and the capital allocation nearly \$22 million. In addition, well over \$100 million was received in revenue (principally fees). Table 1 analyses relevant financial data from 2000/01 to 2006/07.

Table 1: Financial data for the NSW Ambulance Service and NSW Health ⁷

(\$000)	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
Ambulance Service							
Total Expenses	288,364	304,890	330,895	366,793	386,483	414,693	451,943
Sales of G & Services	62,429	63,670	71,650	72,506	74,746	90,504	117,632
Other Revenue	2,621	2,766	3,108	6,793	10,104	15,285	10,312
Recurrent Confund	190,322	198,059	215,777	236,905	258,580	291,324	308,153
Capital Allocation	9,490	9,206	9,064	14,646	15,114	18,872	21,769
Yearly Change		-3%	-2%	62%	3%	25%	15%
Yearly Change Expenses	10%	6%	9%	11%	5%	7%	9%
Yearly Change Sales G&S	5%	2%	13%	1%	3%	21%	30%
Yearly Change Confund	14%	4%	9%	10%	9%	13%	6%
NSW Health							
Total Expenses	7,506,070	8,014,804	8,866,556	9,686,527	10,389,854	11,274,443	12,031,125
Recurrent Confund	5,939,094	6,234,675	6,798,996	7,447,711	8,027,362	9,226,042	9,800,594
Yearly Change Expenses		7%	11%	9%	7%	9%	7%
Yearly Change Confund		5%	9%	10%	8%	15%	6%
General Government Sector – Annual Change in Expenses				6.5%	5.5%	5.7%	5.9%

⁷ Source: Annual Reports Ambulance Service and NSW Health.

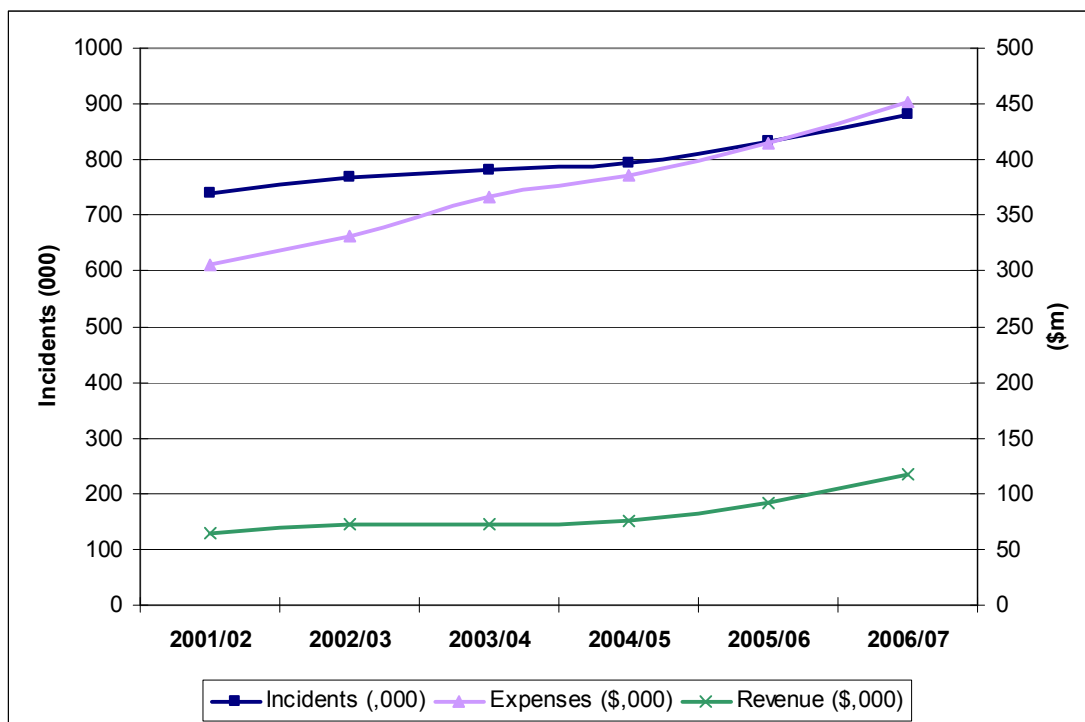
Over the 5 years 2002/03 to 2006/07, average expenses increased by over 8% and the average increase in Consolidated Fund funding was over 9% in nominal terms. Over this time, CPI increases averaged approximately 2.5%. In real terms, the average annual increase over the period was about 5.5% for expenses, and 6.5% for Consolidated Fund funding.

This contrasts with average annual activity over the same period. In that period, the average annual increase in ambulance incidents, responses and transports was 3.5%, 4.2% and 3.6% respectively. Therefore, funding in real terms has increased by about 1.8 times compared to activity.⁸

The graph at Figure 3 shows changes in expenses and revenues against ambulance demand (measured in incidents). The graph shows that expenses (and funding) have experienced a faster increase than has activity.

Whether the funding increases experienced to date can be sustained into the future is questionable. If the Ambulance Service was to pursue efficiencies, some pressure on funding may be alleviated.

Figure 3: Activity, expenses and revenue 2001/02 - 2006/07⁹



Changes in Ambulance Services fees will also assist with alleviating pressure on funding. The increase in fee revenue from 2004/05 to 2006/07 is evident in Figure 3. Fee revenue – which currently constitutes over 90% of total Ambulance Service revenue other than Consolidated Fund contributions – increased by approximately \$43 million or 57% over the period. On current projections, there will be a significant

⁸ It should be noted that activity in the past two years has been above the longer-term averages cited above.

⁹ Source: *Report on Government Services* and *Ambulance Service of NSW Annual Reports*.

increase from 2006/07 to 2007/08. However, the Ambulance Service has a substantial problem with the management of bad debts associated with this revenue stream.

Funding Commitments since 2004/05

Since 2004/05, growth in recurrent funding for the Ambulance Service has generally mirrored the level of growth for NSW Health. The Service has received significant increases in its budget over the period. Expenditure increases have, on average, been greater than for the general government sector. Specific recurrent and capital commitments include the following.

Since 2004/05, additional recurrent funding has been provided specifically for:

- Metro Strategy - \$8 million in 2005/06, \$10m in 2006/07, \$13m in 2007/08 and \$20m thereafter;
- Rotary Wing Service - \$2 million in 2005/06, \$6m in 2006/07, and \$10m per year thereafter; and
- Mobile Data Radio Service - \$2.25 million in 2006/07 and each year thereafter.

Since 2004/05, funding has been specifically provided for:

- In 2005/06, the capital spend was \$14.455 million which included:
 - ⇒ Ambulance Infrastructure (includes medical equipment) - \$6.637m;
 - ⇒ Campbelltown Station - \$1.337m;
 - ⇒ Fleet Replacement - \$3.202m;
 - ⇒ Paddington Station - \$1.150m;
 - ⇒ Port Macquarie Station - \$0.348m;
 - ⇒ Rural Ambulance Fleet - \$1.5m;
 - ⇒ Ryde Station - \$0.281m.
- In 2006/07, the capital spend was \$19.004 million and included:
 - ⇒ Ambulance Fleet replacement - \$8 million;
 - ⇒ Rural radio network - \$1.3m;
 - ⇒ Auburn Station - \$0.2m;
 - ⇒ CAD - \$2.8m;
 - ⇒ Dubbo Station - \$1.34m;
 - ⇒ Internet Booking System - \$1.9m;
 - ⇒ Liverpool Station - \$0.48m;
 - ⇒ Medical equipment and maintenance - \$2m;
 - ⇒ Port Macquarie Station - \$0.883m;
 - ⇒ Ryde Station - \$0.101m.

- In 2007/08, the capital spend is expected to be \$15.798 million and will include:
 - ⇒ CAD - \$0.25m;
 - ⇒ Station Upgrades - \$0.17m;
 - ⇒ Auburn Station - \$1.630m;
 - ⇒ Dubbo Station - \$0.2m;
 - ⇒ Fleet Replacement - \$8m;
 - ⇒ Liverpool Station \$1.350m;
 - ⇒ Equipment and Maintenance - \$2m;
 - ⇒ Port Macquarie Station - \$0.206m;
 - ⇒ Ryde Station - \$1.992m.

- 2008/09 commitments include:
 - ⇒ Funding of \$7.2m for 75 additional ambulance paramedics in Sydney;
 - ⇒ \$6.9 million for new capital works for the Ambulance Service, including \$830,000 for the construction of new ambulance stations at Byron Bay and Batemans Bay;
 - ⇒ \$15.3 million to progress the redevelopment of a number of ambulance stations, including:
 - \$1.8 million for the Auburn Ambulance Station;
 - \$1.8 million for the Liverpool Ambulance Station;
 - \$1.6 million for the Ryde Ambulance Station;
 - \$1.1 million for the Deniliquin Ambulance Station;
 - \$900,000 for the Nelson Bay Ambulance Station;
 - ⇒ \$6 million for ambulance fleet replacement;
 - ⇒ \$6 million for the introduction of the Electronic Patient Record program and the upgrade of the Government Radio Network and the Private Radio Mobile Network, allowing paramedics to better communicate with hospitals for faster diagnosis and treatment;
 - ⇒ \$2 million to purchase new medical equipment and maintain existing equipment.

An overall budget and allocation of funding to the Ambulance Service for 2008/09 will be made by NSW Health shortly.

5. CURRENT OPERATING ENVIRONMENT

5.1 Progress in implementing the findings of earlier reviews

Based on an analysis undertaken of earlier reviews, the conclusion has been reached that the majority of recommendations and proposals advanced in them have been implemented.

The 2007 Auditor General's Report on the Ambulance Service specifically found that all of the recommendations in the original 2001 Report had been substantially implemented. The Government had made changes to the Service's governance structure (restructuring the Ambulance Board and reporting structure in 2002 and subsequently in 2006, making the Ambulance Service a unit of NSW Health).

Implementation of the remaining recommendations, and other initiatives not part of the 2001 Report, had resulted in slightly improved response times, continuing high customer satisfaction levels, and generally improved performance.

Notwithstanding the above, full implementation of a small number of recommendations has not been finalised. Two examples are:

- the lack of real progress in automation of the Ambulance Service rostering system; and
- barriers to flexibility in resource deployment have not been fully removed (although the current industrial case incorporates a review of some relevant award conditions).

Recommendations from the 2003 and 2004 Auditor General's Reports (dealing with the ambulance/hospital interface) have largely been implemented. The exception is a recommendation to link Computer Aided Dispatch (CAD) and the Emergency Department Information System (EDIS).

CAD and EDIS have not been linked, although the Ambulance Service does supply daily information to AHSs on off-stretcher times and long delays. While greater integration of the two systems would result in benefits, the Review Team understands that there are complex technical issues to be resolved in implementing this initiative. Work being undertaken by NSW Health on electronic health records is expected to assist in this area.

The outstanding issue – although not a specific recommendation – from the Auditor General's 2005 Review of the State Rescue Board is the role of the Ambulance Service in rescue.

The Government endorsed the recommendations for changed or new charges made in the 2006 IPART Report. These have been applied from the 2006/07 financial year. The changes include:

- charging "treat not transport" patients (for whom there was previously no charge);
- charging a standby fee for involvement in dangerous incidents or events (e.g. chemical spills or industrial accidents);
- charging the Department of Veterans' Affairs (DVA) for services to its clients; and
- charging increased and more cost-reflective fees for inter-hospital transfers and for primary cases.

However, a range of policy and other related recommendations from the IPART Review remain to be implemented. These include:

- the Ambulance Service to clarify its hardship policy;
- the Department of Health to undertake a public education campaign to raise public awareness of charges; and
- an exploration of the addition of an ambulance component to the Medicare levy.

The first two issues are taken up further in the current Review. The question of incorporating an ambulance component into the Medicare levy is largely a question for the Commonwealth Government to consider in negotiation with relevant State Governments. This could be taken up at a later stage in the COAG discussions on the reform of Commonwealth/State arrangements in health and community services.

Proposals arising from the various 2002 and 2004 ORH organisational reviews have largely been implemented although, in some cases, a revised approach was adopted. For instance, the Ambulance Service advises that the *Switch* program, commenced in February 2006, has overtaken some particular recommendations in the ORH report for the Sydney Ambulance Centre. *Switch* is a project designed to improve the efficiency of work practices and processes in the Sydney Ambulance Centre.

5.2 Activity levels

Ambulance activity can be categorised using the following terms:

1. Incidents. An incident is a call to a specific location for ambulance assistance or treatment.
2. Responses. A response involves an individual ambulance resource being sent to an incident. The number of responses exceeds the number of incidents because more than one ambulance may attend an incident.
3. Transports. A transport involves taking a patient to an ED or some other location. Where someone is transported to an ED, it is considered an emergency transport. Any other type of transport is classified as an NEPT.

It is worth noting at the outset that there is more reliable data on the level of demand than on the drivers of that demand. This section of the report attempts to identify the current situation. Where the evidence base for possible drivers is poor, it is proposed that further work be undertaken to analyse the reasons for changes in demand.

In the three years from 2004/05 to 2006/07, there was increasing demand for ambulance services compared to the previous three years, 2001/02 to 2003/04. Over the five year period from 2002/03 to 2006/07, ambulance incidents increased by an average of 3.5%. In the three years from 2004/05 to 2006/07, this rate of increase accelerated to 4.1%.

Over the same periods, transports increased by an average 3.6% in the past five years rising to 4.8% in the past three years. It is important to note that over the past three years, emergency transports have increased by an average of 8.2%. This is where most demand pressure is being experienced. Based on demographic change, the expected increase would be about 3.4% per annum.

The growth in ambulance demand, shown in Figure 4 below, demonstrates that demand has increased significantly in the past three years.

Figure 4: Ambulance Service Activity Growth 2001/02 - 2006/07 ¹⁰

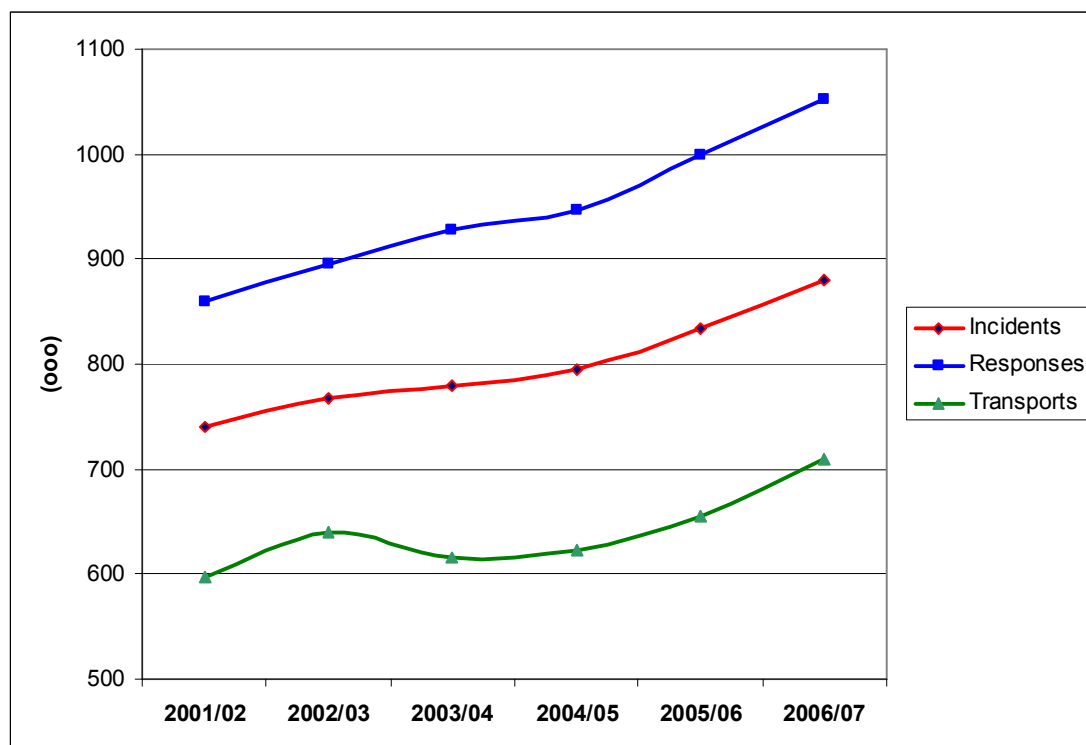


Table 2 shows the change in ambulance activity between 2001/02 and 2006/07. In 2006/07, the Ambulance Service responded to approximately 1,053,000 incidents. Incidents for the year totalled 880,000. The number of transports for the year was approximately 709,000.

The increase in activity from 2005/06 to 2006/07 was about 5.5%, while transports increased by over 8%. In the past two years, activity across the board has been greater than the historical trends. The data highlights that, since 2004/05, there has been a significant increase in the rate of change for ambulance activity.

Table 2: Ambulance Activity 2001/02 to 2006/07 ¹¹

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
Incidents ('000)	740	768	780	795	834	880
Responses ('000)	859	895	928	947	999	1,053
Transports ('000)	597	639	616	622	655	709
Year to Year Change – Incidents		3.8%	1.6%	1.9%	4.9%	5.5%
Year to Year Change – Responses		4.2%	3.7%	2.0%	5.5%	5.4%
Year to Year Change – Transports		7.0%	-3.6%	1.0%	5.3%	8.2%

¹⁰ Source: *Report on Government Services*.

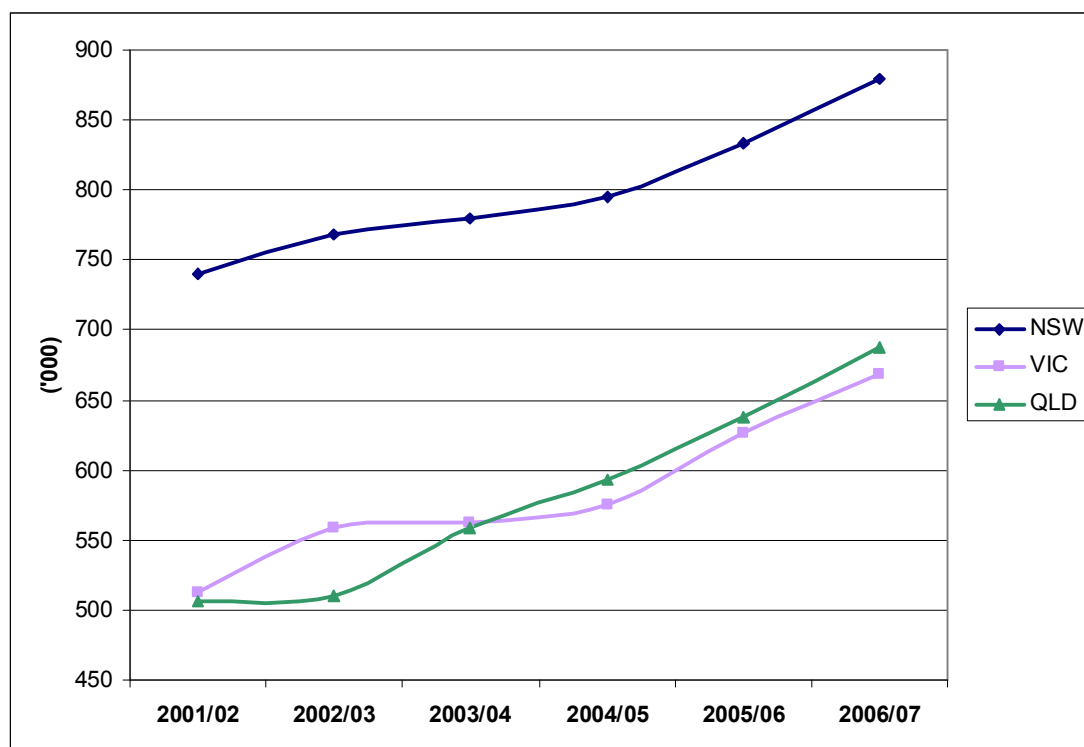
¹¹ Source: *Ibid*.

NSW Health has identified a similar spike in ED admissions commencing after 2004/05. Ambulance admissions represent only about 25% of overall ED admissions. The specific factors that have caused this phenomenon are not clear.

Analysis undertaken by NSW Health indicates that between 2001/02 and 2005/06, demographic changes (in terms of both overall population growth and an ageing population) explain about half of the increase in ED attendances, equating to about a 3.4 % increase per year. This relates especially to emergency transports by the Ambulance Service, as most of these arrive at an ED.¹²

A similar spike in activity has been experienced in other jurisdictions. Figure 5 sets out the recent trends in New South Wales, Victoria and Queensland. In Victoria, the spike in activity commenced at the same time as in NSW (2004/05), whereas Queensland experienced an increase in demand two years earlier (2002/03).

Figure 5: Ambulance Incidents NSW, QLD, VIC ¹³



The analysis above demonstrates that demand for ambulance services has, over recent years, been increasing significantly with demand for patient transport representing the most significant component of the Ambulance Service's resource utilisation.

Changes in Demand – Patient Transport

The Ambulance Service is engaged in two key patient transport activities. One relates to responses to emergency incidents and the other to general inter-facility transport services authorised by a medical professional.

¹² *Analysis of Emergency Data*. Discussion Paper. June 2007. NSW Health and Paxton Partners.

¹³ Source: *Report on Government Services*.

About 60% of ambulance transports are to an ED. The balance consists of inter-hospital transports, renal patient transfers, transports to and from medical appointments, and “other” transports, such as to and from nursing homes.

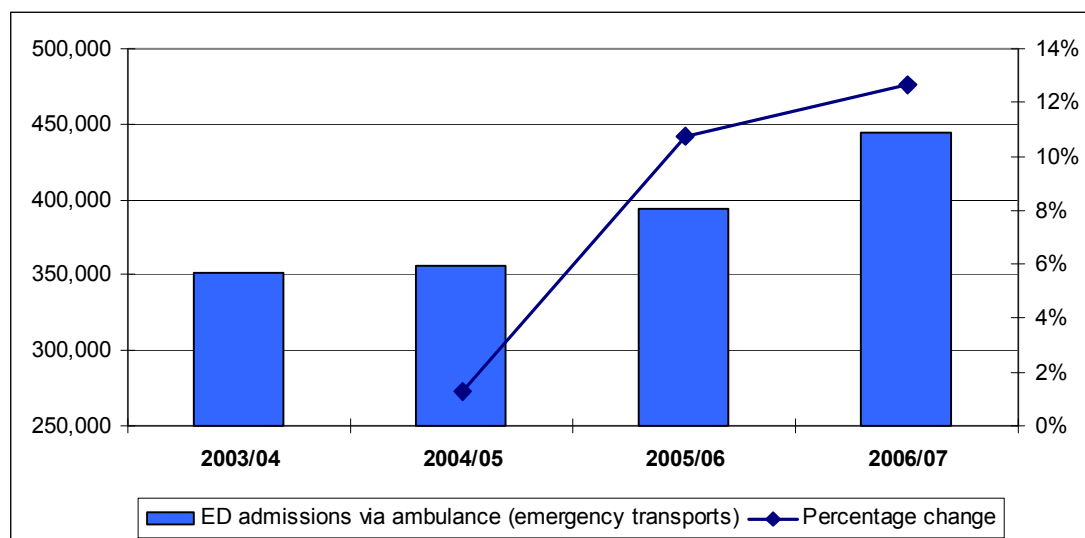
Table 3 shows the total transport activity for the Ambulance Service since 2003/04. Non-emergency transport has been static for the past four years. The Ambulance Service is only one of several NEPT providers, (which include AHSs and other independent operators).

Table 3: Total Transport Activity by Ambulance Service of NSW

(,000)	2003/04	2004/05	2005/06	2006/07
Total Transports	616	622	655	709
ED attendances by ambulance	351	356	393	444
Non emergency transports	265	266	262	265

Emergency transports have increased at a faster rate than has other ambulance activity. There has been a significant increase in emergency activity from 2004/05.

Figure 6: Total ED Attendances by ambulance in NSW 2003/04 - 2006/07 ¹⁴



Acuity is measured using the Australasian Triage Scale (ATS), where ATS 1 represents the highest acuity and ATS 5 the lowest. Figure 7 shows the annual change in acuity since 2003/04 in NSW. The increase in emergency transports has not been uniform across triage categories. However, as with other ambulance services, the higher acuity patients (ATS 1 and 2) represent less than 20% of all emergency transports.

¹⁴ Source: Ambulance Service of NSW (using AIHW Australian Hospital Statistics) and NSW Health.

Figure 7: ED attendances by ambulance per triage category 2003/04 - 2006/07 ¹⁵

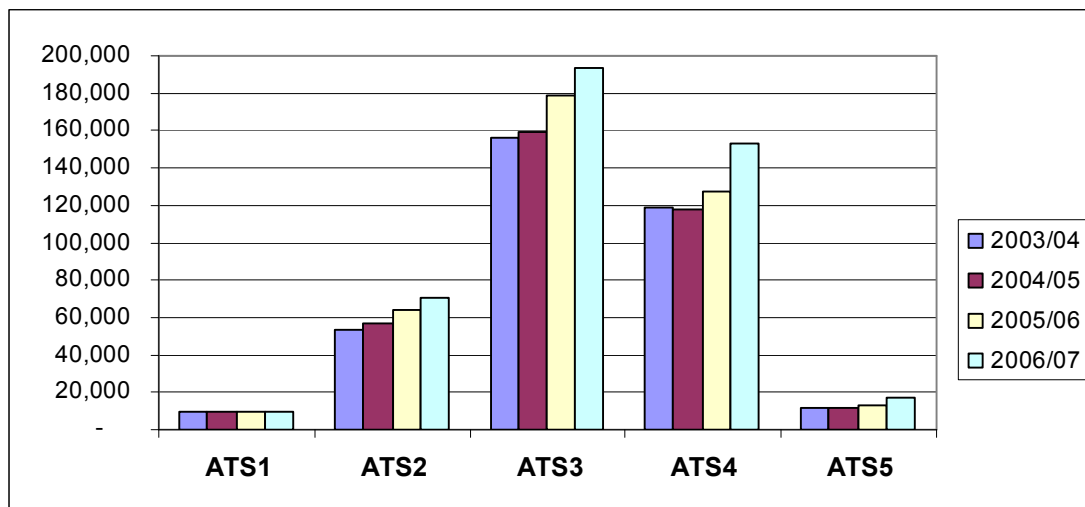
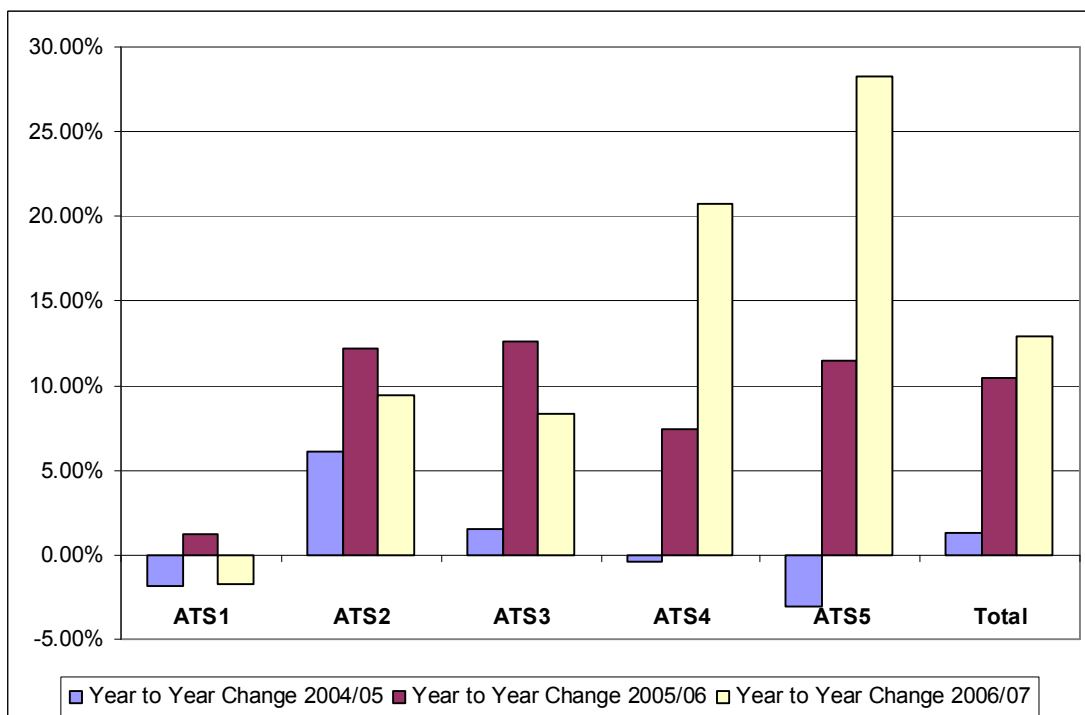


Figure 8 demonstrates changes in the acuity of emergency transports since 2003/04, with the significant spike in activity in 2005/06 evident. In 2006/07, the increase in emergency transports for low acuity patients was significantly higher than for high acuity patients.

Figure 8: Change in ED attendances by ambulance 2004/05 - 2006/07¹⁶

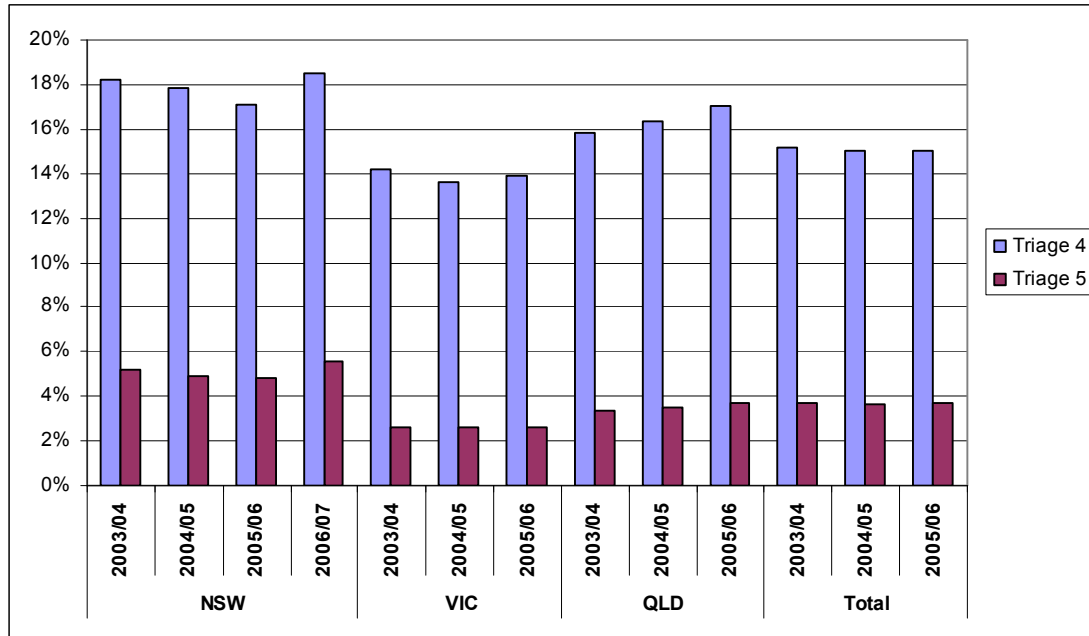


¹⁵ Source: Ambulance Service of NSW (using AIHW Australian Hospital Statistics) and NSW Health.

¹⁶ Source: Ambulance Service of NSW (using AIHW Australian Hospital Statistics) and NSW Health.

Figure 9 shows ED attendances by ambulance for ATS categories 4 and 5 across a number of jurisdictions. These categories are the lowest acuity conditions in terms of presentations at an ED. In NSW, the proportion of emergency transports for low acuity matters is higher than for other comparable jurisdictions.

Figure 9: ED attendances for ATS 4 and 5 transported by ambulance¹⁷



The key findings from the preceding analysis are:

- Emergency transports have increased significantly in the past three years;
- A significant component of the increase in emergency transports is for patients with low acuity conditions, where a significant proportion may not genuinely require ambulance attendance or consequent transport;
- ED attendance by ambulance for categories ATS 4 and 5 is higher in NSW than other jurisdictions; and
- Non-emergency demand is relatively static for ambulances.

5.3 Performance

The main performance measure used for Ambulance Services is response times. This is predominantly a measure of effectiveness, and does not include any evaluation of the efficiency of the service or its equitable accessibility across the community.

Table 4 compares response times across jurisdictions in Australia.

¹⁷ Source: *Ambulance Service of NSW (using AIHW Australian Hospital Statistics) and NSW Health.*

Table 4: Comparative response times - Emergency Code 1 cases (50th percentile¹⁸⁾ ¹⁹

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT
2002/03	9.7	9.0	9.0	9.0	8.5	10.2	7.4	9.0
2003/04	9.9	9.0	8.0	9.0	9.2	10.3	7.5	9.0
2004/05	9.8	9.0	8.0	9.1	9.4	10.1	7.5	9.5
2005/06	9.5	9.0	8.0	9.7	9.6	10.2	7.5	8.5
2006/07	9.6	10.0	8.2	9.0	9.4	10.5	8.2	9.0

While there has been a significant spike in ambulance demand over recent years, response times for emergency work (see Table 4) have not deteriorated markedly. However, analysis by ORH Ltd²⁰ demonstrates that, if resources remain stable and the number of incidents continues to increase at around 5% per annum (as has occurred over the past two years), response performance will deteriorate rapidly from 2008/09 onwards, highlighting the importance of managing demand better in the future.

International standards for ‘Code 1’ life threatening cases are currently around 8 minutes. The Council of Ambulance Authorities (CAA) benchmark for an emergency response is 10 minutes. Ambulance Service performance meets the CAA benchmark.

In addition to response indicators, clinical measures are used to assess the effectiveness of an Ambulance Service. One such measure is the cardiac arrest survival rate. Such clinical indicators can be seen as outcome measures. While a number of jurisdictions publicly report on these, the Ambulance Service does not.

The Ambulance Service performance agreement with NSW Health reports against several performance measures. The targets specified in 2007/08 recognise that the performance of the Service is expected to worsen. For instance, the specified target for the 50th percentile response time is 9.8 minutes for 2007/08, compared to 9.6 minutes in 2006/07. The performance agreement is similarly limited in its specification of outcomes and concentrates on activities. There are currently 17 clinical indicators against which the Ambulance Service reports. Data quality for these indicators is variable. The Ambulance Service needs to identify appropriate clinical indicators for public reporting. The appropriate use of targets across clinical and organisation performance can assist in driving both change and a culture of continuous improvement in the Ambulance Service.

¹⁸ The 50th percentile response is defined as the time within which 50 per cent of the first responding ambulance resource arrives at the scene of an emergency in code 1 situations. The unit of measure is in minutes.

¹⁹ Source: Productivity Commission, *Report on Government Services 2008*.

²⁰ ORH Limited. *Ambulance Service of New South Wales: Emergency Ambulance Cover: Supporting the Ambulance Review - Potential Initiatives for Improved Performance*. Final Report. February 2008.

This Review has found that:

- response times are likely to worsen if demand continues to increase without appropriate demand management actions;
- NSW does not have publicly stated targets for emergency responses, such as those used by other similar jurisdictions (e.g. London, Melbourne, South Australia); and
- reporting against Ambulance Service clinical performance indicators needs some improvement.

Recommendation:

That the Ambulance Service continue to improve the public reporting of its performance by:

- expanding the set of performance measures for regular reporting to include patient safety and clinical quality measures; and
- including targets in performance measures to inform the public better about how well Ambulance Service is tracking in its service delivery.

5.4 Demand pressures

The 2007 Queensland Ambulance Service (QAS) Audit Report identified changing demographics (population growth and ageing) as one factor driving demand. Notwithstanding this, the Queensland Review found that a significant proportion of the demand growth cannot be accounted for by demographic factors. This is generally consistent with the NSW Health findings for ED demand.²¹

Since 2002, a CAA commissioned national study has examined factors in ambulance demand and has identified various factors across all jurisdictions (including demographic and social change). The data utilised is for the period to 2003/04. Given the spike in demand in some jurisdictions since 2003/04 (see Figure 5), it is timely that the CAA review the issue.

Assuming that demographic change is the natural or underlying rate of change, ambulance demand change at the demographic rate is unremarkable. The fact that emergency transports have actually increased by more than three times the demographic rate of change in the past two years is remarkable.

Analysis elsewhere in this Report indicates that around 40% of the change relates to the servicing of low acuity patients. The residual or unexplained increase in demand is of a magnitude of between 3% to 4% and is not properly understood. This issue is further discussed below, leading to a conclusion that more quantitative and qualitative work is required to understand the composition of the residual.

In the NSW Health analysis, the Ambulance Service view was that increased transports were due to both patient demand and increases in ambulance capacity. The Service considered that the reduction in access block and off stretcher time since 2004

²¹ *Analysis of Emergency Data Discussion Paper* June 2007 – NSW Health & Paxton Partners

had improved capacity and subsequently increased demand. NSW Health is not convinced that these assertions are robust.²²

The analysis conducted on behalf of NSW Health cites the following factors as contributing to the increasing demand for ED services, of which emergency transports are a sub-component:

- changing patient morbidity and the increasing prevalence of chronic illness in the community increases the number of patients who require ongoing health care;
- increasingly informed patients are demanding greater services;
- patients are by-passing GPs in preference for EDs, which are seen by many as a one-stop-shop for health care; and
- improvements in population health campaigns make patients more aware of a greater variety of health conditions and, as a result, lead them to seek ED care earlier.

In its submission to this Review, the Ambulance Service offers the following reasons as factors driving increased demand for its services:

- social factors – more people living alone and fewer family support mechanisms;
- decreasing accessibility of general practice and alternative services – limitations of both hours of practice and of bulk billing;
- changes in medical practice and patient management – especially the management of acute episodes of care for the chronically ill living at home;
- increased community expectations; and
- changed hospital trends (increased day surgery, reduced length of stay, hospital at home programs, etc.).

It is not at all clear that the system-wide factors identified by NSW Health necessarily result in increased emergency calls, so triggering an ambulance response. An argument can be made that the increased prevalence of chronic disease is driving an increase in non-emergency transports.

However, the Ambulance Service submission notes that the number of such transports actually decreased in 2006/07. It also appears that AHSs have increased their non-emergency transports services. This may be lessening the demand for non-emergency patient transports by the Ambulance Service.

GP availability

Many stakeholders consulted in the course of this Review acknowledge increased bypassing of GPs by some in the community who prefer EDs as their source of primary health care. This could account for some of the increase in ambulance demand as well, but data is currently poor and the general claim is difficult to verify. In the forums with Ambulance Service staff, there was a strong anecdotal view that this is a factor driving ambulance demand. While it is generally argued that the availability of GPs affects the demand for Ambulance Services, the Queensland Report notes that demand for Ambulance Services has increased at the same time as

²² Ibid, p.40

the number of available GPs has also increased. It needs to be recognised that, over the period in question, the rate of bulk billing also increased in Queensland.

It is arguable that ATS categories 4 and 5 could (or should) be treated by GPs as these types of conditions tend to be lower acuity. Analysis of ED attendances by ambulance for these triage categories shows that the proportion of these categories against the total ED admissions has been steady at around 18% and 5% respectively for ATS 4 and ATS 5 from 2003/04 to 2006/07. It could therefore be argued that the availability of GPs has not changed significantly for patients in these categories.

Transport Policy/Protocols

One factor that may be driving demand is the Ambulance Service's transport protocols. Over the past three years, the proportion of admissions to EDs by ambulance for ATS 4 and ATS 5 has been declining. This may be indicative of unnecessary transports in the past. The Ambulance Service submission acknowledges this. Notwithstanding this, NSW's transport rate for these categories is still significantly higher than in other jurisdictions.

As was shown in Figure 9, Ambulance Service transports to ED for triage category 5 is double that of Victoria, and at least 3.5% higher for category 4. Relative to other comparable services, the Ambulance Service appears to transport a greater proportion of the total incidents attended.

From 2004/05 to 2005/06, the total number of transports to EDs increased by approximately 10.5% (shown in Figure 8). This represented 37,302 additional transports. If NSW had transported ATS 4 and ATS 5 patients at the same rate as Victoria in 2005/06 (13.59% versus 2.6%), there would have been a net reduction of 32,236 transports to the ED. This is approximately 86% of the total increase in ED transports for NSW in 2005/06.

The reasons for NSW having a higher rate of attendances to EDs for ATS 4 and 5 by ambulance compared to Victoria need to be understood, especially in an environment of demand increasing at a greater rate than would be expected. This phenomenon is seen even more dramatically in 2006/07, where the number of ATS 4 and 5 transports to EDs in NSW increased by 20% and 28% respectively.

In 2006/07, over half the 12.9% increase in emergency transports (noting non-emergency demand decreased in that year) was due to an increase in ATS 4 and 5 transports. The Review Team does not argue that ATS 4 and 5 patients should not be transported to EDs where this is appropriate, but the differences between the transport rates in different jurisdictions need to be understood. This is especially the case at a time where activity is increasing at a rate significantly higher than the historical trend.

In its submission to the Review, the Ambulance Service notes that the changed non-transport protocols (72 and 74) resulted in an increase in patient transports between 2005 and 2007. These protocols compelled paramedics to transport patients if transport was requested, regardless of the clinical judgement of the paramedic. Between 2005 and 2007, the Service estimates that approximately 40% of the increase in hospital transports is attributable to the change in protocols. The Ambulance Service has advised that increases due to the modified protocols have abated.

However, based on the year to date data provided to the Review by NSW Health, this does not seem to be the case.

Multiple Deployments

Another factor that may be driving demand higher than would be expected is multiple deployments.

Between 2001/02 and 2006/07, the proportion of responses to incidents has, at an aggregate level, been increasing. This indicates that, over the period, the Ambulance Service has increased the number of vehicles it sends to incidents. In the Review Team's consultations with stakeholders, a common theme emerged. The operations of the CAD system, combined with the effect of certain protocols, results in a proportion of transports occurring where either an ambulance was not required in the first instance, or – where it was required – the clinical judgement of the paramedic to treat rather than transport is not supported by policy.

Table 5: Multiple deployments of vehicles to incidents

Ratio	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
Responses/Incidents (R/I)	1.161	1.165	1.190	1.191	1.198	1.197
Emergency R/I	1.199	1.208	1.231	1.244	1.242	1.238
Non Emergency R/I	1.084	1.083	1.109	1.086	1.090	1.089

Chronic Disease

In addition to the demographic changes that have occurred, the prevalence of chronic disease is also increasing. This is probably influencing demand for ambulance services because the burden of disease is increasing across the population through increased rates of obesity, diabetes, heart disease, renal problems, mental health problems, etc. However, the effect of this development is difficult to quantify.

Major Events

Another demand pressure on the Ambulance Service, especially in Sydney, is the provision of medical support for large-scale events. During consultations, senior executives and staff raised the issue of support for events as the source of an increasing impost on operations.

Ambulance Service staff attend the Government Coordination Centre and the Police Operations Centre during some large scale events, as well as attending planning and debrief meetings. The number of events has increased in recent years. The Government has established Events New South Wales recently to stimulate interest in Sydney and in New South Wales as leading global events destinations.

It is likely that the frequency and scale of events will increase over the coming years. In normal circumstances, some financial contribution for medical support is provided by the event organiser to the Ambulance Service. However, the published rates for standby services listed by IPART often do not reflect the true costs. In many cases, Ambulance Service staff provide cover on overtime or higher hourly rates because

normal rostered crews need to remain available to respond to emergencies not related to the event.

The Ambulance Service receives some financial support from the State Government for very large-scale events declared to be “state significant”. Such events are rare and include APEC and World Youth Day. The Service is expected to absorb costs for a range of other regular events, including New Year’s Eve, Australia Day, Mardi Gras and Anzac Day, as well as for one-off events.

The Review Team has been informed that there are very limited options for other service providers to provide medical support to major events because they are already at or nearing operational capacity. It is likely that the provision of support for major events will increase in the future.

Conclusion

The preceding analysis has demonstrated that, whilst changing demographics – particularly population growth and an ageing population – account for a major component of the increased demand for ambulance services, a significant proportion of demand growth is not readily understood. The Review has attempted to analyse some of the other drivers at play in NSW such as GP availability, the transport of low acuity patients, and the incidence of chronic disease. Further work is required to understand all of the factors driving demand and to develop strategies to deal with them.

The findings on demand show that:

- the rate of increase in ambulance demand is above that of demographic change;
- the rate of increase has accelerated in 2005/06;
- the increase in emergency transports is higher than incidents/responses in 2005/06; and
- ATS 4 and 5 transports to EDs is higher in NSW than in other jurisdictions.

Recommendation:

That the Ambulance Service and NSW Health initiate a study with other jurisdictions, through the Council of Ambulance Authorities, to analyse factors beyond demographic changes that are driving increased demand for ambulance services. The study should be undertaken in close collaboration with state health departments and other key stakeholders to analyse the issues and develop appropriate demand management strategies.

6. RESOURCES AND BUDGETING

6.1 Current resources and utilisation

In 2007/08, expenses are budgeted to be about \$479 million. This is an increase on the 2006/07 budgeted expenses of over \$32 million. This represents a budget-to-budget increase of over 7%. Actual expenditure over the year will be higher than 7% as revenues to date are significantly higher than was budgeted. The increase in Consolidated Funds from 2006/07 to 2007/08 is about 4.8%. The gap indicates that the Ambulance Service is becoming less reliant on direct Government funding for its operations.

This change is confirmed in the 2008 *Report on Government Services*. The Report shows that, in terms of direct State Government support for the Ambulance Service, the percentage of total funding has dropped from 76.4% in 2002/03 to 72.5% in 2006/07. NSW Government funding for the Ambulance Service is significantly higher than the Australian average.

In 2007/08, Ambulance Service employee-related expenses represent just over 69.2% of total budgeted expenses. In 2002/03, salary related expenditure represented 72.7% of the total budgeted expenses. While overall increases in recurrent expenditure over the period have been 36%, growth in FTE positions has been 17%. Growth in operational positions over the same time has been 16%.

In 2007/08, employee-related expenses are expected to increase by 4.3% compared to the previous year. In 2007/08, other operating expenses are expected to increase by 9.8% over the 2006/07 budget.

In 2007/08, the sales of goods and services budget increased by over 15% on the previous year. The Ambulance Service has advised that revenue in 2007/08 will be used as a source of funding for some of its maintenance spending.

6.2 Costs of services – financial efficiency

IPART's 2005 *Review of the Financial Aspects of the Ambulance Service of NSW* considered aspects of efficiency and effectiveness using PC data. In relation to efficiency, IPART found that, compared to other state jurisdictions, the NSW service was cost efficient. That is, based on costs per patient and per response, NSW was cheaper than comparable states (Vic and Qld) and cheaper than the national average.

The IPART analysis was for the period to 2003/04. Based on the 2007 *Report on Government Services*, NSW is now on par with Queensland, but still significantly cheaper than Victoria and the national average. It should be noted that direct comparisons using this data should be treated with caution given the inter-jurisdictional variations that exist.

Tables 6, 7 and 8 below indicate that the Ambulance Service is cost efficient compared to other Australian jurisdictions. Costs are below the Australian average and significantly below Victoria, the only directly comparable service. It is more difficult to assess how close the NSW Ambulance Service is to maximising its output, given the resource inputs.

Table 6: Ambulance Service Costs per Response – 2001/02 to 2006/07 ²³

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Aust
2001/02	\$395	\$457	\$465	\$415	\$442	\$405	\$500	\$384	\$432
2002/03		\$484	\$460	\$487	\$497	\$430	\$577	\$407	
2003/04		\$501	\$466	\$500	\$504	\$457	\$566	\$431	
2004/05	\$437	\$517	\$452	\$497	\$537	\$545	\$762	\$360	\$475
2005/06	\$435	\$528	\$434	\$484	\$488	\$487	\$683	\$409	\$468
2006/07	\$453	\$537	\$441	\$520	\$515	\$508	\$625	\$412	\$482

Table 7: Ambulance Service Costs per Patient – 2001/02 to 2006/07 ²⁴

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Aust
2001/02	\$502	\$598	\$542	\$423	\$442	\$469	\$500	\$446	\$522
2002/03	\$515	\$637	\$536	\$480	\$497	\$525	\$625	\$468	\$546
2003/04	\$543	\$656	\$580	\$495	\$555	\$694	\$559	\$495	\$578
2004/05	\$542	\$678	\$568	\$492	\$596	\$749	\$901	\$418	\$587
2005/06	\$543	\$682	\$540	\$477	\$543	\$653	\$821	\$475	\$575
2006/07	\$537	\$695	\$580	\$511	\$588	\$653	\$741	\$483	\$591

Table 8: Ambulance Service Costs per Transport – 2001/02 to 2006/07 ²⁵

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Aust
2001/02	\$568	\$656	\$574	\$425	\$556	\$542	\$737	\$522	\$578
2002/03	\$594	\$703	\$577	\$526	\$632	\$606	\$885	\$527	\$617
2003/04	\$664	\$723	\$615	\$542	\$659	\$694	\$878	\$557	\$658
2004/05	\$665	\$746	\$603	\$539	\$705	\$878	\$1,155	\$453	\$668
2005/06	\$664	\$746	\$583	\$524	\$650	\$823	\$1,078	\$517	\$657
2006/07	\$673	\$767	\$633	\$574	\$682	\$865	\$1,053	\$519	\$686

²³ Source: Productivity Commission, *Report on Government Services 2008*.

²⁴ Source: Ibid.

²⁵ Source: Ibid.

Based on the ORH Report prepared for the Review, there is some evidence that reforms to the service delivery model, as well as changes to some work practices, would allow the Ambulance Service to realise further efficiencies. In light of the recent increasing demand for services, and the accompanying pressure on response times, it is important that any opportunities for additional efficiency improvements are pursued. This is further highlighted by the significant growth in ambulance/health related expenses compared to the rest of the general government sector.

This Report elsewhere considers the utilisation of labour resources (including rosters, overtime etc.) and its implications for resource utilisation/efficiency. At this stage, it should be noted that there is significant potential to generate efficiencies by pursuing reforms in this area.

In the ORH report a number of options were identified that, if pursued, would result in improved efficiency for the Ambulance Service. These include:

- tiering – separating the A&E work and the non-emergency work into separate tiers (this will be expanded upon Section 7.2);
- reducing the number of multiple responses;
- making rosters more demand responsive; and
- increasing the proportion of ‘treat-not-transport’ responses.

Pursuing these initiatives could generate efficiencies in the range of 114 -160 equivalent full time (EFT) positions. This equates to an efficiency improvement of 3% to 4%.

Changing the current infrastructure model in the Sydney metropolitan area could provide further opportunities for improving efficiency. Current station infrastructure does not give an efficient or effective base for providing emergency cover. This infrastructure will be put under increasing pressure if demand increases over time as expected. The currently proposed model is based on service networks with major host sites supported by satellite posts. Host stations, accommodating over 100 staff, will be supported by satellites where two ambulances will be stationed. This clustering of stations is expected to reduce response times significantly, and to generate efficiencies through the rationalisation of a number of sites.

The Review understands that, because the project involves significant capital expenditure, the Ambulance Service is preparing a business case seeking approval. The expected efficiencies from the proposed model are expected to be significant (> \$7 million per annum).

Recommendation:

That the Ambulance Service develop a business case for the new Sydney metropolitan infrastructure model, and pursue other efficiencies to free operational capacity to better meet demand.

6.3 Capital

In the past five years (2002/03 to 2006/07), the Ambulance Service's capital allocation has increased by an annual average of over 20%. Funding has increased from around \$9 million in 2002/03 to almost \$22 million in 2006/07. It is important to note that the capital allocation and the actual capital spend may differ for a number of reasons, including accounting classification and expensing.

It should also be noted that, in its submission to the Review, the Ambulance Service includes fleet replacement in its discussion of capital. Fleet replacement is actually effected through a leasing scheme, the costs of which are expensed rather than capitalised. In 2006/07, the fleet leasing expense was over \$19 million. Provision of vehicles is the Ambulance Service's highest priority in terms of capital needs, and this is being fully met through the leasing arrangement. In the past five years, vehicle-leasing expenses have increased significantly.

In its submission to the Review, the Ambulance Service indicated that the existing provisions for its future requirements may not be sufficient to meet its expected needs. The Ambulance Service capital program is part of the overall NSW Health capital program. Ambulance Service requirements are assessed in this context. It appears NSW Health has assessed the Ambulance Service's needs against other health sector needs and concluded that, based on the limited resources available, only part of what the Ambulance Service wants can be provided. This is not unreasonable, if the basis of the rationing process is reasonable. The Review is not in a position to assess this.

This raises the issues of what characterises good capital planning for the Ambulance Service and how this interfaces with overall NSW Health processes. Based on the material sighted by the Review, it appears that, in the past, the Ambulance Service's asset planning may not have been as thorough as it could have been. There seems to have been no integrated asset strategy underpinned by investment, maintenance and disposal plans. This was reflected in a number of business cases that were prepared to seek support for capital investment.

The Review is encouraged by the inclusion of the Ambulance Service in NSW Health's current Capital Investment Strategic Planning (CISP) process. This displays an increased awareness across the health sector of the need for proper capital planning to meet increasing demand pressures.

In consultations with employees, the view was expressed that building maintenance spending was not sufficient. In the past five years, spending on all types of maintenance increased by approximately 26% to over \$18 million in 2006/07. In 2006/07, maintenance as a proportion of net assets is approximately 8.5% (compared to about 4% across NSW Health). The proportion of maintenance spending is quite high compared to most agencies. This may be affected by differences in classification as to what constitutes maintenance. In its submission to the Review, the Ambulance Service states that the forward estimates requirements for maintenance are factored into the CISP.

Based on information available to the Review, it appears that spending on building maintenance is a lower priority than other types of maintenance as classified by the Ambulance Service. The Ambulance Service has advised that, since the IPART charging regime, some additional revenue is used as a source of funding for maintenance spending. Generally, actual revenue accrued by the Ambulance Service is greater than budgeted. This could be considered a potential source of funding for

maintenance. More generally, the rationale for the maintenance program needs to be explained and understood throughout the Service, and should be promulgated through the capital planning processes.

This highlights the importance of the interface between NSW Health and the Ambulance Service with regard to overall capital planning. This can be improved significantly through more coordinated planning.

Capital Findings:

- Capital spending has increased at a higher rate than activity;
- The Ambulance Service business analysis to support capital bids is not sufficiently robust; and
- The Ambulance Service is not effectively integrated into NSW Health financial/resource planning.

7. DEMAND MANAGEMENT APPROACHES

7.1 Introduction

In recent years, the demand for ambulance services has increased at a rate higher than the rate of population increase and the rate of change due to ageing. Other drivers of demand are not fully analysed or understood within the health system.

The purpose of this chapter is to examine the range of initiatives available to the Ambulance Service to manage demand.

Figure 10: Proposed Demand Management Approaches

	Transport	Dispatch Systems	Alternative Care Models	Community Education
Initiatives	<ul style="list-style-type: none"> Tiering Non-Emergency Patient Transport review 	<ul style="list-style-type: none"> Refining response criteria (MPDS) 	<ul style="list-style-type: none"> <i>HACC</i>: Health Access Coordination Centre <i>ECP</i>: Extended Care Paramedic <i>CARE</i>: Clinical Assessment and Referral program 	<ul style="list-style-type: none"> Broad education campaign Hardship policy
Expected benefits	<ul style="list-style-type: none"> Increased capacity of A&E resources Better matching of resources Review to quantify costs and benefits 	<ul style="list-style-type: none"> Improved prioritisation of cases More targeted responses 	<ul style="list-style-type: none"> Increased capacity of A&E ambulances Fewer ambulance transports to EDs Improved patient care Improved career options for ambulance officers 	<ul style="list-style-type: none"> Improved awareness of role, function and cost Appropriate use of resources and skills
Issues	<ul style="list-style-type: none"> Role of PTS in NEPT Potential use of private providers for NEPT Maintaining A&E capacity 	<ul style="list-style-type: none"> Optimising dispatch processes Use of evidence based clinical assessments 	<ul style="list-style-type: none"> Need to maintain focus on A&E services Ensure evaluations and cost effectiveness HACC operates only in Sydney at present 	<ul style="list-style-type: none"> Evaluation of long term impact of campaign Hardship policy to be promulgated

These initiatives include:

- Changing transport arrangements (tiering) so that ambulance resources are most appropriately matched to emergency and non-emergency patient needs;
- Modifying dispatch procedures so that emergency resources are prioritised to meet the most urgent clinical care cases;
- Increased use of alternative care models to reduce the demand for ambulance transport;

- Maximising revenue so that, where appropriate, billed services are fully recovered; and
- Greater community education so that the public is informed about the role and appropriate use of the Ambulance Service.

7.2 Tiering the Ambulance Service

‘Tiering’, in the context of the Ambulance Service, is the separation of transport work into distinct operational streams, emergency and non-emergency. Servicing the two streams requires quite different resources. Staff require significantly different levels of skill and training, and vehicles and vehicle fit-outs are markedly different. Tiering of ambulance services is well suited to highly urbanised areas, where there is sufficient work in each stream to realise efficiencies through separation of the operations required to service each.

Tiering in itself does not preclude emergency ambulances from performing non-emergency work. The purpose of tiering is to free up the capacity of emergency ambulances, the prime focus of which is to respond quickly to medical emergencies.

Full tiering of the Ambulance Service would entail:

- the assignment of A&E Ambulances primarily to emergencies; and
- the existing PTS, operated by Ambulance Service, undertaking most non-emergency work.

The A&E tier also includes the provision of Fast Response Vehicles (FRVs). These are staffed by highly trained paramedics who provide immediate attendance at medical/trauma emergencies.

As a part of the Review, a report was commissioned from an international consultant specialising in optimising operations in emergency services, ORH Ltd²⁶. The consultant proposed that tiering be introduced for the Ambulance Service. The consultant did not provide an assessment of the current performance of the PTS. The analysis undertaken was focused primarily on improving response times for emergency ambulances. ORH advised that:

- tiering be introduced in Sydney, thereby removing up to 75% of non-emergency demand from the A&E tier and transferring it to an enhanced PTS;
- tiering offers the best prospect of improving response times for A&E ambulances and lowering utilisation rates so that there is improved capacity to respond to emergencies;
- tiering of ambulance services occurs in the United Kingdom and is increasingly the preferred operational model in many large cities;
- further review is required to assess options for improved efficiency within the PTS, although further investment in the PTS is likely to be required;

²⁶ ORH Limited. *Ambulance Service of New South Wales: Emergency Ambulance Cover: Supporting the Ambulance Review - Potential Initiatives for Improved Performance*. Final Report. February 2008.

- to improve response times, additional FRV resources will be required: ten to 20 in Sydney, between five and nine for the Central Coast/Hunter area; and between four and seven in the Illawarra; and
- in addition to Sydney, tiering be introduced to the Central Coast and inner Hunter, but not for the Illawarra, as there is not enough emergency and non-emergency work in the Illawarra to justify tiering.

Patient Transport Service (PTS)

The PTS is operated by the Ambulance Service and provides a limited NEPT tier in Sydney, Central Coast, Newcastle and Wollongong. The PTS has approximately 140 staff. They receive limited training and are employed under a different award to other ambulance staff. The PTS is not deployed to emergency incidents.

PTS vehicles are equipped to transport two patients on stretchers and are usually double crewed, as many patients require lifting and assistance to be transported.

In 2006/07, the PTS completed about 246,000 transports and carries about half of all non-emergency patients transported by the Ambulance Service. The remainder are transported by A&E ambulances.

The PTS is presently managed within the respective geographical Divisions of the Ambulance Service, with the Sydney Division managing most of the PTS. The Review found that there is relatively little analysis of PTS operations, especially in relation to comparative options for service delivery.

The Review is cautious about recommending an expansion of the PTS because more work needs to be undertaken on the effectiveness and efficiency of the current service. There is widespread support from Ambulance Service staff for an expansion of the PTS so that the skills of A&E staff can better be utilised for emergency work.

It is expected that the move to tiering within the Ambulance Service would involve, amongst other things, the establishment of a separate governance structure for the management and delivery of the PTS.

Transport for Health Policy

The NSW Health *Transport for Health* policy (2006) aims to improve coordination between services, increase efficiencies, and reduce duplication so that patients are directed to the most suitable form of non-emergency health transport assistance.

The *Transport for Health* policy includes the following transport programs:

- community transport;
- inter-facility transport;
- Isolated Patients Travel and Accommodation Assistance Scheme; and
- Statewide Infant Screening – Hearing (SWISH Travel).

Funding of \$16.4 million was provided under the Policy in 2007/08. The *Transport for Health* program is available to patients prevents from using conventional private or public transport due to distance, isolation, location, costs and/or frailty and who therefore require assistance to access non-emergency health services.

Patients who require an ambulance service because of the acute nature of their health condition and/or high level of frailty are not eligible for *Transport for Health* services.

Under the *Transport for Health* policy, all AHSs are required to develop specific Transport for Health Implementation Plans. These Implementation Plans guide the implementation and monitoring of the policy at an operational level.

Health Transport Units have been established in each AHS. The Units act as a single point of contact for patients and health service providers in accessing information about available and suitable transport options.

Health Transport Networks have also been established in all AHSs to provide a formal channel of communication between AHS and non-AHS health transport stakeholders.

The market for Non-Emergency Patient Transport in NSW

The size of the total market for NEPT has not been estimated. In this context, NEPT refers to patient transport authorised by a medical professional, usually a doctor.

The *Health Services Act 1997* prohibits the provision of ambulance transport for “fee or reward” unless authorised by the Director-General, NSW Health. The opening of the market to private providers for non-emergency work, and an appropriate regulatory system, could be considered at some point in the future, once the fully tiered model is fully implemented and operating well.

NEPT is also provided by the larger teaching hospitals in metropolitan areas. The number of vehicles available, the type and nature of services provided, and the degree of integration (if any) with the PTS requires specific study. It is not clear whether the NSW *Transport for Health* implementation plans will specifically address this area.

The NSW Health policy is a generalised statement requiring fuller analysis and coordination of non-emergency services at the local level. It encompasses transport services provided by government agencies, community groups and other transport providers. AHS implementation plans are being developed. As indicated, there are few links with Ambulance Service provision.

Operational considerations for the Ambulance Service

The efficiency of current PTS operations requires closer examination prior to any consideration of the allocation of additional resources to that tier of the Ambulance Service. Additional efficiencies are likely to be possible with an enlarged non-emergency structure.

Current proposals from the Ambulance Service to upgrade its infrastructure in Sydney are being considered by the Government. These proposals constitute a significant capital program. Prior to this program being approved, it is imperative that the future directions of the PTS be known so that any expansion of the PTS can be accommodated within the enhanced stations.

In adopting a tiered structure for the Ambulance Service, there are possible implications for the dispatch system, including a focus on A&E responses, and on better planning and systems for the other non-emergency responses.

Recommendation:

That 'tiering' be adopted in the Ambulance Service as a means of focusing resources on greatest need (A&E demand).

Recommendation:

That, to support progress towards a fully 'tiered' service, a review of NEPT be undertaken (in collaboration with NSW Health and AHSs) with terms of reference including the following elements:

- Describe the NEPT service system by classifying the different transport types associated with existing service providers and patient presentations across NSW (including air transport);
- Describe the attributes of an efficient NEPT service system by identifying good practice models;
- Estimate the overall size of the NEPT market in NSW including the development of a number of scenarios forecasting possible market growth over 5-10 years;
- Review the existing eligibility criteria and processes to authorise, arrange, and fund NEPT by registered health professionals in NSW;
- Review the governance structure, capacity and efficiency of the existing PTS within the Ambulance Service;
- Assess costs, benefits and risks of expanding the PTS to meet expected market demand;
- Review the current and future arrangements for an expanded PTS within the Ambulance Service, including possible contractual arrangements, dispatch procedures, service planning, accommodation and station infrastructure, staff recruitment and training needs, and linkages to the *Transport for Health* policy of NSW Health; and
- Assess the potential for any contestability in the provision of NEPT services, including barriers to market entry and any regulatory issues that would arise from the entry of any new providers into the market.

Recommendation:

That the NEPT review be overseen by a steering committee comprised of NSW Health, Ambulance Service, Department of Premier & Cabinet, and NSW Treasury. The review is to ensure detailed consultation with Area Health Services and other key stakeholders, including the Health Services Union.

7.3 Review of dispatching procedures and systems

The Review acknowledges that the Ambulance Service performs well in maintaining very high levels of patient safety. Ambulance Service operational protocols are such that the vast majority of patients attended to by an ambulance are offered transport to

a hospital ED. The result is that, in many circumstances, a patient is treated by a number of health professionals for the same, often minor, condition.

To meet increasing demand while continuing to ensure the highest levels of patient safety, the Ambulance Service must regularly review its operating protocols so that the most appropriate response can be made by paramedics attending an incident. A consistent theme that emerged in the consultation with paramedics was that a large number of transports to EDs occur because paramedics do not feel adequately supported to exercise their clinical judgement to treat rather than transport.

A significant recommendation of this Review is to begin a comprehensive program of educating the community about the proper use of ambulances. One element of this program would aim to promote a wider acceptance of treatment at the scene, where that is the appropriate clinical response.

In common with most ambulance services around the developed world, the Ambulance Service utilises proprietary software from the United States (ProQA) and the related decision support, the Medical Priority Dispatch System (MPDS). The integrated dispatching software system is used by most jurisdictions in Australia.

The key objectives of the MPDS, which has been refined over two decades, is to ensure that resources are appropriately deployed to match the clinical condition of a patient, and that these decisions are consistently applied. The system generates a variety of response codes which are determined by the Ambulance Service. Annexure 1A of the ORH report²⁷ is a matrix of the possible response modes used by the Ambulance Service, where a 'hot' response means that 'lights and sirens' are used.

The Ambulance Service diligently reports on the accuracy of emergency call-taking processes at all four operations centres. The Review was informed that in other jurisdictions, where audits of call taking had occurred, compliance was highly variable, undermining the integrity of call triaging and dispatch systems. In NSW, ProQA compliance scores are close to 100% and the Ambulance Service should be commended on consistently achieving an outstanding result.

During consultations with Ambulance Service staff during the Review, many staff were critical of the ProQA system and the urgency rating applied. The system determines the deployment strategy based on both the information provided to it by callers and on answers to standardised questions. It was apparent that some callers were aware of how to answer questions in a manner that overstated their clinical needs in order to ensure that a hot response was forthcoming from the Ambulance Service. There is no evidence that any dispatch system available can overcome these challenges whilst limiting the time for the call.

The issue of 'professional clinical judgement' versus an automated systems generated method of dispatching has been evaluated extensively over a number of studies.²⁸ In general, these studies support the application of automated, protocol-based call taking software because the deployment decisions are, in general, appropriate and consistent.

²⁷ ORH Limited. Ambulance Service of New South Wales: *Emergency Ambulance Cover: Supporting the Ambulance Review - Potential Initiatives for Improved Performance*. Final Report. February 2008.

²⁸ J. Clawson, C. Olola, et alia 'Accuracy of emergency medical dispatchers' subjective ability to identify when higher dispatch levels are warranted over a Medical Priority Dispatch System automated protocol's recommended coding based on paramedic outcome data', *Emergency Medicine Journal* 2007; 24:560-563.

These studies tend to note that for valid reasons the automated systems are designed to over-allocate resources slightly from a risk-averse paradigm to ensure that patient safety is maintained.

The Ambulance Service has recently reviewed the response decisions from the MPDS to ensure that it is adequately prepared for the expected winter demand spike. Over 300 determinants have been assessed in this review. Where clinically justified, a less urgent response rating has been applied, or a different clinical skills profile has been applied to free up resources and to reserve the highest response capacity for more complex or life threatening cases.

The recent Audit of the QAS notes that, despite an almost annual review of its response categories, the usual result was the transport of a patient to a hospital with the only real difference being the time it took for an ambulance to arrive.²⁹

The Review notes that the Ambulance Service has determined a greater role for the Health Access Coordination Centre (HACC), a small-scale medical advice centre for patients and paramedics. The Service has recently designated the HACC as the sole point of response for twelve clinical presentations. More information about the HACC is provided in the following section of the Report.

The Review supports the ongoing assessment of the MPDS by the Ambulance Service. The assessment should be based on robust clinical evidence, on the ongoing assessment of patient satisfaction, and, where possible, on operational metrics such as the return rates (and transport rates) for patients who were assigned to the HACC as the sole response mode.

Ultimately, the Review is of the opinion that the Service currently allocates too many ambulance crews to patients whose clinical condition does not necessarily warrant an allocation. To ensure that demand can be managed effectively, the Review has identified this as an area of continuous improvement for the Service.

Recommendation:

That the Ambulance Service undertake an annual review of the determinants for its dispatching procedures (MPDS) with the aim of better matching resources to patient presentations, reducing multiple deployments, and freeing up capacity to respond to genuine life threatening emergencies.

Computer Aided Dispatch

At the heart of the four Operations Centres across the state is the CAD platform, which is the primary ambulance dispatch system used to identify incident locations, and provide real-time visual tracking of vehicles.

The Ambulance Service currently maintains multiple versions of the CAD system across its four Operations Centres. To gain efficiencies, and to ensure business continuity in the event of disasters, the Service is undertaking a major upgrade of its CAD, which will involve the establishment of two highly secure data centres located outside the Operations Centres. The upgrade will provide a single up-to-date instance of the CAD software, related geographic information system data, and ICT

²⁹ *Queensland Ambulance Service Audit Report* December 2007, p.94, Queensland Government.

infrastructure to support all statewide operations associated with emergency and routine patient transport, call taking, and dispatch functions.

The Ambulance Service previously maintained 12 Operations Centres. The Review understands that there are plans within the Service to consolidate the number of Operations Centres further in the future, although the timeframe within which this will occur is not clear. The Review contends that there appear to be few business reasons to maintain so many operations centres. The Review therefore supports this rationalisation and the associated integration and upgrade of the CAD infrastructure.

7.4 Alternative care models

Health Access Coordination Centre (HACC)

HACC provides medical advice by telephone to triple-0 callers who are classified by the decision support software (MPDS), as low level, non-acute cases. It is a small unit located in the Sydney Ambulance Centre and staffed by a small number of nurses and paramedics.

To date, HACC's operations have not resulted in a significant reduction in the number of non-acute cases serviced by ambulance. In only 6% of the 30,600 calls referred to it in 2007 did the patient decide that an ambulance was not required.

The Review Team consulted with the staff operating the Centre. It is apparent that an ambulance is still deployed for non-urgent calls and that only in rare circumstances is an ambulance stood down.

Building community confidence in the role of the HACC will be important in reducing the number of low-level, non-acute cases that are attended by an ambulance and, subsequently, taken to an ED.

The HACC has had trouble in attracting and maintaining a full complement of staff. The reasons for this are not well understood, but it has been suggested anecdotally that the main problem is that the work is not regarded as particularly challenging for highly skilled nurses and paramedics.

There are plans for the HACC to be expanded. Any expansion needs to be considered carefully in terms of costs and benefits relative to performance in reducing the number of ambulance call-outs to low-level, non-acute incidents.

Provision of remote medical advice in other jurisdictions

The Metropolitan Ambulance Service (MAS) (Melbourne) employs a suite of demand diversionary strategies to mitigate deployment of a double-crewed ambulance. These strategies include the use of locum doctors for non-acute cases; nurse advice by telephone; and referral to mental health networks. It has been estimated that these strategies save approximately 25,000 transports per annum for MAS. About 5% of triple-0 callers in Melbourne are diverted to alternative models of service delivery, so avoiding the deployment of ambulance resources.

By contrast, in NSW during 2007 only a very small percentage of triple-0 calls were diverted to the HACC. Even then, for calls diverted to the HACC, an ambulance is usually deployed to attend to the patient. The Ambulance Service estimates that about 1,800 transports were saved by the HACC during the year.

Western Australia operates HealthDirect as a free 24-hour, seven days a week health advice line. HealthDirect provides professional advice on the urgency of a health problem and the action that can be taken to address it. The published aim of HealthDirect is to make health services more accessible, to facilitate service delivery closer to where people live, and to increase participation by health professionals in the community. It is unclear whether this advice line has proved to be effective in managing demand for ambulances.

The London Ambulance Service (LAS) currently has about 50 ambulance staff that provide clinical advice by telephone. This is about to increase to 70. CEO Peter Bradley states:

“We will be purchasing some software (ECMS) that will allow clinical telephone advisors to access primary care services in real time and book appointments - this will take two years to fully roll out and will be a huge undertaking - but it will be great for the patient.”³⁰

An evaluation of a more generalised nurse-run telephone support line in the United Kingdom (NHS Direct) concluded that the practice of transferring non-urgent emergency calls for further advice and assessment provides a safe and cost-effective service for some emergency calls, although the relative proportion of these calls in relation to the entire emergency call workload is small.³¹ The evaluation showed that any assumption that referring calls for telephone advice would substitute for the deployment of an ambulance was not the case, with almost half of the calls returned for an ambulance response. It should be noted that the Ambulance Service in the United Kingdom is a free service and any comparative assessments with New South Wales should consider this, given that consumer expectations may prove to be different. Another finding of the evaluation was that the extra layer of patient questioning improved the triaging process, resulting in a more appropriate resourcing of deployments to match patient needs, although it also resulted in less satisfied patients tired of persistent questioning about their conditions.

Future Developments

The Ambulance Service has indicated that its operational procedures are soon to be reviewed to include some patient conditions as appropriate for referral to the HACC as the sole response mode. The Ambulance Service has reported that the HACC, which currently services the Sydney Ambulance Centre, is to be expanded to service the whole of NSW later in 2008. This expansion will require additional staff.

The Service expects that the HACC will also play an expanded operational role in the future by recommending patients to be serviced by the Extended Care Paramedic (ECP) program. The Service should continue to collect data and analyse the calls referred to the HACC to ensure that it remains an appropriate and cost effective approach to demand management.

The Service has reported that, in preparation for winter 2008, an increased number of determinants (patient presentations) will be referred to the HACC for advice and as

³⁰ Source: telephone interview Peter Bradley LAS.

³¹ J. Turner, H. Snooks et al, *The costs and benefits of managing some low-priority 999 ambulance calls by NHS Direct nurse advisers*, Report for the National Co-ordinating Centre for NHS Service Delivery and Organisation R & D, April 2006

the sole method of response. This increased role is part of the clinical reassessment of the MDPS and is supported by the Review.

All states and territories, at a meeting of the Council of Australian Governments (COAG) in February 2006, agreed to the establishment of a National Health Call Centre Network. The core functions of the Network were determined to be:

- nurse-based telephone triage, supported by a single national set of electronic decision support software and algorithms;
- health advice and information including support for the needs of rural and isolated communities; and
- referral to health services, supported by service directories that are developed and maintained to be responsive to local needs.

The Review understands that the arrangements for the proposed national call centre are still to be decided. Therefore, prior to expansion of the HACC to service the whole of NSW, the Ambulance Service should confirm the proposed arrangements for the national call centre with the NSW Department of Health and determine the future arrangements.

The Ambulance Service should also continue to evaluate existing and additional opportunities to channel more calls to the HACC to mitigate the transport of patients to hospital EDs.

CARE Program and Extended Care Paramedic Program (ECP)

Aside from the HACC, the Ambulance Service has developed two service delivery models to deflect patient care away from the hospital ED where appropriate. These proof-of-concept programs are the CARE program and the Extended Care Paramedic (ECP) program. The ECP and CARE programs are designed to provide direct treatment, advice and service options to patients who have low-level non-acute medical needs.

Studies have provided estimates that around 40% of emergency calls that are so deployed do not actually require an emergency response.³² Triage algorithms used by emergency call-taking staff have been refined over the years to improve the matching of ambulance resources to patient conditions. To ensure maintenance of patient safety, it is generally accepted practice in all ambulance services that dispatch procedures are cautious. This often results in an over-deployment of resources which may be in the form of multiple resources and/or a higher urgency rating than is likely to be presented by the patient.

The traditional service model for ambulances is to stabilise a patient, provide immediate life-saving treatment and pain relief, and transport to a hospital ED. Ambulance services around the developed world are recognising that there is increased scope to treat low-risk patients more effectively at the scene, or in their homes, thus mitigating the conveyance of patients to hospital EDs where treatment is usually more expensive and often more time consuming. The hospital emergency room can at times be a very unsettling and unsympathetic environment, especially for elderly patients. Aside from hospital EDs, the health system is also under pressure to

³² Snooks H, Wrigley H, George S, Thomas E, Smith H, Glasper A. 'Appropriateness of use of emergency ambulances. *Journal of Accident and Emergency Medicine* 1998; 15: 212-218

manage unplanned hospital readmissions better and to provide appropriate care options within the community.³³

Various permutations of extended care paramedics (ECP) operate in several jurisdictions. This shift in service delivery is widely debated within the ambulance profession. On the face of it, ambulance services possess the dispatch infrastructure and range of vehicles and equipment to treat patients who have a variety of medical needs. The question of whether the Ambulance Service is the most appropriate (and cost effective) service provider to treat patients with low medical needs is still to be determined. Some industry commentators have suggested that the skills of a nurse practitioner are more likely to be appropriate for patients with low-level medical needs than those of a paramedic whose domain is generally regarded as emergency medicine.

Nurse practitioners receive additional education and may be authorised to prescribe medications, assess and diagnose patients, and refer them to other allied health professionals in compliance with specific guidelines. There is a history of strong demarcation between health professions across Australia. The PC and COAG have recommended and attempted health workforce reforms respectively.³⁴ Nurse practitioners were cited as an example where reform is needed.

Should a significant workforce of ECPs be required in the NSW Ambulance Service, it is likely that this expanded role would not occur without some industrial risks, notably around demarcation of roles and equity of conditions. Nurses were consulted by the Review Team in the course of stakeholder consultations. Although supportive of the work of the Ambulance Service, they expressed some concerns that paramedics were not a registered profession, and that their skills and practice knowledge were not independently assessed. Nurses were cautious of an expanded clinical role for ambulance paramedics, especially where these roles were undertaken by other medical professionals.

Nonetheless, the ECP and CARE programs are important initiatives of the Service and come with secured recurrent funding and the support of the Department of Health. The ECP program is a component of the Department's broader clinical services redesign program. Both the CARE and ECP programs are explored in more detail below.

CARE Program

The CARE (Clinical Assessment and Referral) Program is an enhanced training module for P1 and P2 paramedics to assist them to identify appropriate patient conditions for alternative methods of treatment thereby avoiding transporting patients to hospital.

CARE-trained paramedics use evidence-based criteria to assess low risk patients and provide initial assessment, treatment and advice to patients. The advice is either:

- an appropriate self-care regime;
- a recommendation for further health treatment (such as a GP if the observed condition does not improve); and/or
- direct referral to a local allied health professional.

³³ *State Health Plan Towards 2010*, NSW Health, February 2007, ISBN: 1741870143

³⁴ Productivity Commission 2005, *Australia's Health Workforce*, Research Report, Canberra.

CARE paramedics are trained to assess the following conditions:

- Epileptic postictal;
- Minor wounds and lacerations;
- Diabetic hypoglycaemia;
- Mild asthma;
- Epistaxis;
- Localised tooth pain; and
- Strains and sprains of the ankle and foot.

At the time of writing, an additional pathway development is planned to increase the impact of the program. Service directories and single points of access/intake services will enhance the range of presentations to which the CARE model can be applied.

CARE is being implemented and evaluated as a proof of concept in Sydney West (Nepean Catchment), South Eastern Sydney, Illawarra (St George / Sutherland), and on the Central Coast.

As part of the winter planning for 2008, the Department of Health has requested that the Service expand training for the program to a greater number of paramedics than was initially planned. The Review considers this a prudent demand management measure.

Extended Care Paramedic Program

The ECP program is a proof-of-concept program operating initially in the Nepean area of Western Sydney. To explore the model's applicability in the regional setting, a further cohort of four ECPs will be trained for the Port Macquarie and Foster-Tuncurry areas.

The aim of the program is to increase the choices available to people who call for assistance following a minor illness or injury or for people who require basic medical advice or reassurance. Eligible clients of the program are individuals who have very low medical risk and do not need to be transported to a hospital ED.

ECP paramedics operate as single responders in a vehicle, similar to that of Rapid Responders. ECP paramedics receive additional training in patient assessment and clinical decision making to enable them to identify low risk patients.

ECP clinical operations commenced in late December 2007, with 12 ECP paramedics. In the first few months of operation, almost 1,000 patients have been seen, with a non-transport rate of 39%. This compares to a non-transport rate of around 20-25% for 'normal operations'. ECP paramedics are also available to respond to emergencies.

The NSW ECP program is based on the United Kingdom's Emergency Care Practitioner program that has been piloted for close to five years. The NSW program appears to have been well researched and based on solid clinical and economic concepts. The program has been tailored for NSW in collaboration with key stakeholders including NSW Health, AHSs, Hospitals, Divisions of General Practice and the Ambulance Service, each contributing to the design of a program aimed at meeting local needs. The model is intensively monitored to ensure patient safety and to enable scope development and modification in response to experience and need.

Various components of the UK ECP program have been evaluated, including a national evaluation. There is some evidence in the UK that patients are generally more satisfied with the program and over half are treated by paramedics rather than being referred to other health providers. The national evaluation of the UK program has reported that ECP paramedics are cheaper than are regular paramedics, with cost savings of GBP £291 per patient. This cost saving was based on staff time, avoided ED attendances, and less frequent use of outpatient services. However, this estimate is based on a very small sample of 56 patients (out of a study of 524). Thus, these results should be treated cautiously.

The ECP's focus on patients with minor injuries (such as lacerations and wounds, sporting injuries, falls, and minor back pain) and, where appropriate, identify and initiate alternative non-ED care such as community GPs, co-located GPs, hospital based services or community based services.

Evaluation of the CARE and ECP Programs

On the face of it, the CARE and ECP pilot programs are positive initiatives for the Ambulance Service allowing paramedics to take a more active role in patient care by exercising their clinical skills to a higher degree. The rollout of these programs is likely to engender greater confidence from the community in recognising that paramedics are trained health professionals. The ECP program also provides an additional step in a paramedic's career.

The Review considers that there are a range of operational and financial issues that need to be evaluated to determine the effectiveness and efficiency of these programs. These issues include:

- Operational costs versus revenue implications;
- Risk that the ECP program is over-utilised by some patients with non-acute chronic conditions which may be more appropriately treated by a General Practitioner;
- Risk that ECP paramedics are frequently diverted to respond to emergency incidents, especially during periods of sustained demand (e.g. winter); and
- Risk that the Ambulance Service is expanding its operations away from its core business of emergency clinical care.

Summary

The Service is investing substantial management time and resources to support both the ECP and CARE programs. These programs will be independently evaluated to determine their cost effectiveness, not only within the Ambulance Service but also within the wider health system.

The Review considers that it is critical that the evaluations of these programs are rigorous, quantify the 'downstream' impacts on health resources (emergency rooms), and prove whether they are effective. These programs may consume more ambulance resources due to increased case cycle times, extra staff and vehicles, but these extra costs may be more than offset through savings in other areas of the health system.

In September 2007, the Ambulance Service was presented with a comprehensive evaluation strategy for both programs which was developed with an external consultant. These evaluations are to occur over a three-year period. Should these programs (especially the ECP program) be positively evaluated, it is important that all service delivery options for ECP-type patients be considered, including those outside the Ambulance Service.

To some extent, the ECP program presents a new operating paradigm in the industry. Prior to any widespread expansion of this program, the Ambulance Service and NSW Health will need to articulate clearly the role of the different health service providers and how they fit into the spectrum of out of hospital care.

The Review considers that the ECP program is an important program, not only for the Ambulance Service but also for the wider health system. The results from the program evaluation should be reported to the Government annually.

7.5 Educating the public about the Ambulance Service

In 2001, the NSW Auditor General delivered a *Performance Audit Report* and recommended that the Ambulance Service:

- develop means of keeping the broader community informed of the Ambulance Service's progress, directions and plans;
- re-establish public reporting of reliable responsiveness data and trends; and
- identify external relationships to ensure interchange of information and consistency of standards.

A follow-up report by the Auditor General in 2007 indicated that the Ambulance Service had largely met these challenges and that it should be commended for its progress to date. The Review has identified some areas for further improvement, most notably the implementation of a large-scale community-wide education program designed to clarify to members of the public the appropriate use of the Ambulance Service.

Informing the community

Overall, the Ambulance Service makes significant efforts to consult with and inform the community about its services. This Review has found that the current challenges associated with increased demand will require a stepped up effort in relation to community education. The Review Team believes that some improvements can be made in the quality of information reported to the public.

In relation to keeping the public informed about the Service's progress, directions and plans, the Ambulance Service has published *Guidelines for Consumer and Public Participation within the Ambulance Service of New South Wales*.

The Ambulance Service has improved its website content by providing more information about its initiatives and its performance. The utility of the performance data could be improved by providing targets and analysis such as benchmarking information. At the time of reporting, the quality of performance data on the Ambulance Service website was variable, with activity data often out of date.

The Ambulance Service has recently engaged in targeted consumer education programs. These programs include, 'Be An Ambulance Hero – Dial Zero Zero Zero', a school education program for pupils aged five to eight, and the 'Life Live It Save It' program for retirees.

Recommendation:

That the Ambulance Service develop and implement an ongoing community education program promoting appropriate use of ambulances. This campaign should be designed using detailed research on Ambulance Service clients and potential clients and should seek to:

- promote effective use of Ambulance Service resources;
- reduce unnecessary requests for ambulances;
- increase acceptance in the community that paramedics are well-equipped to determine whether treatment on site rather than transport to an accident and emergency department is the most appropriate clinical response to an incident;
- ensure that citizens are well informed of the fees payable for ambulance attendances; and
- promote effective use of triple-0 for life-threatening events.

7.6 Pricing

NSW has user charges for ambulance services. Patients who are transported are charged unless they are eligible for exemption. Patients who are treated but not transported are also subject to charges unless they qualify for an exemption. The pool of patients who are potentially subject to price signals is less than 50%. Of this reduced pool, less than half are actually invoiced. This reduced pool may limit the overall effectiveness of the price signal in moderating demand.

Based on advice from the Ambulance Service, in 2006/07 there were about 709,000 ambulance transports, of which about 222,000 were invoiced. Of these about 132,000 were paid by DVA or other third parties, e.g. Motor Accidents Authority (MAA). Of the patients who were treated but not transported (161,000), approximately 18% were invoiced. In 2006/07, the number of pensioners transported totalled about 364,000.

The 2007 *Queensland Ambulance Audit Report* found that, when patient fees were abolished in 2003 and the funding of the Ambulance Service was replaced by the Community Ambulance Cover levy, there was an increase in ambulance use. This was especially the case with low acuity patients. These findings reinforce the importance of price signals in managing demand for the use of ambulance services for low-level, non-acute incidents.

In NSW, pensioners and health care cardholders are exempt from user charges. People who hold private health insurance are not charged, as they pay an ambulance levy as part of their insurance. Veterans are not charged, but the Ambulance Service recovers fees from DVA where a veteran has used an ambulance service.

Of the patients who constituted primary transports in 2006/07, only about 16% were directly chargeable. This takes into account all exemptions and payments by third

parties. Of this 16%, less than two-thirds are actually charged by Ambulance Service. No reasons for forgoing this revenue were provided to the Review. The Ambulance Service should investigate the reasons for this and adjust its procedures accordingly.

In the consultations with stakeholders, co-payments were suggested as a way of reducing inappropriate use. The Government may wish to consider this. As the application of a co-payment may affect those who are currently exempt from charges, the benefits will need to be assessed against existing policy priorities.

Arising from the IPART Review, the Ambulance Service was to review its *Hardship Policy*. To date, this exercise has not been completed.

The Review's analysis indicates that:

- price signals can assist in managing demand;
- about 20% of A&E matters are charged;
- Ambulance Service fees are not strongly communicated; and
- the Ambulance Service has not updated its *Hardship Policy* in line with the IPART recommendations.

8. CORPORATE GOVERNANCE

8.1 Structure and accountability

With the repeal of the *Ambulance Service Act 1990* in 2006, responsibility for control of the Ambulance Service was transferred from the Ambulance Service Board to the Director-General of the Department of Health. The Chief Executive is appointed by the Director-General to exercise control of the Ambulance Service.

The HSU, in its submission to the Review, raised the issue of the Ambulance Service again becoming a separate agency. The model put forward by the HSU replaced the present position of Chief Executive with a uniformed Commissioner reporting directly to the Minister for Health. The issue was also raised in staff consultations – by a small number of staff – with some expressing a view that an independent Ambulance Service should be part of the Emergency Service Portfolio. The Review does not believe that any compelling case for this model has been put forward and, hence, has not recommended this change.

Indeed, the Review considers that the advantages of greater harmonisation with the broader NSW health sector have the potential to deliver better, more cost effective patient outcomes. However, reporting and consultative structures need to be implemented which explicitly recognise the Ambulance Service's statewide role and daily interaction with hospitals across all AHSs.

The *Health Services Act 1997* also establishes an Ambulance Service Advisory Council to provide advice to the Director-General of Health. Although the Advisory Council's membership is identical to that of the previous Board, it no longer has responsibility for control of the Ambulance Service and is an advisory body only.

As shown in Figure 2, the Ambulance Service is structured into four main Divisions:

- Operations;
- Clinical Development;
- Corporate Services; and
- Finance and Data Services.

The first three Divisions are headed by General Managers at Senior Executive Level. The Director of Finance and Data Services and the Directors of the other small units (Public Affairs, Executive Services, and Professional Standards and Conduct) report direct to the CEO.

The Chief Executive of the Ambulance Service has established an Executive Management Board to control the affairs of the Ambulance Service. It is the key corporate governance body for the Ambulance Service and mirrors the former management role of the Ambulance Board.

The Board's role is to ensure the efficient and effective use of resources and to review regularly the adequacy and effectiveness of organisational performance, financial management and corporate governance arrangements.

Membership of the Board comprises all Ambulance Service senior executives:

- Chief Executive (Chair);
- General Manager Operations;

- General Manager Clinical Development;
- General Manager Corporate Services;
- Director Finance and Data Services;
- Director Public Affairs;
- Director Executive Services;
- Director Professional Standards and Conduct; and
- Director Counter Disaster Unit.

The Board meets monthly and operates with formal agendas and minutes.

Four advisory committees which previously reported to the Ambulance Board now report to the Executive Management Board. These are:

- Audit;
- Clinical Governance;
- Finance; and
- Performance and Risk Management.

All but the Performance and Risk Management Committee have independent chairs, drawn from the Ambulance Service Advisory Council.

These governance structures appear appropriate in supporting the Chief Executive in the operation of the Ambulance Service, with one exception. The Review considers that business system and process improvement will be driven better from a single Corporate Services Division which incorporates Finance and Data Services. The functions of the two existing positions should be combined and the grading of the new position evaluated accordingly.

Discussions with Ambulance Service executives indicate that, overall, the Executive Management Board is operating well. It provides a mechanism for cohesion and decision making at that level.

Recommendation:

That the Ambulance Service consolidate all existing corporate services functions (including Finance and Data Services) into a single Corporate Services Division. The existing positions of General Manager, Corporate Services and Director, Finance should be abolished and a new position of General Manager Finance and Corporate Services should be created.

8.2 Control environment and decision-making

As already mentioned, the Ambulance Service has an Audit Committee and a separate Performance and Risk Management Committee.

The Audit Committee has four members, drawn from the Advisory Council. Whilst the chair and one member are otherwise independent of the service, two are employee representatives, although member declarations of real or potential conflicts of interest are a standing agenda item at each Committee meeting. A number of members of the

Ambulance Service Executive and a representative of the outsourced Internal Audit provider (currently Deloitte Touche Tohmatsu) regularly attend meetings as observers. It is not clear:

- what reporting line exists for the outsourced Internal Audit function; or
- in what way (if any) Internal Audit is linked to the Ambulance Service's identified risk control measures.

The Performance and Risk Management Committee consists of the Ambulance Service Executive, apart from the CEO, and the managers of Risk Management and of Infrastructure and Assets. The General Manager, Operations is the Chair. This Committee oversees the range of risk management functions within the organisation, with the large membership likely to be a function of the lack of integration between systems. There are separate processes for:

- clinical risks, which are part of the daily work of all paramedics, and considered corporately by the Clinical Governance Committee;
- workforce risks or, more specifically, occupational health and safety risks, which are managed by the Performance Management Unit; and
- infrastructure and asset risks, which are managed by the Infrastructure and Asset Unit.

The April 2008 report, *Internal Audit Capacity in the NSW Public Sector, Final Report*, Department of Premier and Cabinet, includes a better practice framework to guide improvements to public sector governance and risk management. The Ambulance Service should assess its systems generally against this framework, but most specifically:

- create a joint Audit and Risk Management Committee to better integrate the assessment of controls on identified risks; and
- assess the Ambulance Service current risk management systems and processes against *Australian and New Zealand Standard 4360:2004 – Risk Management* and develop a strategy to address any deficiencies.

Based on organisation charts, position descriptions and written delegations, the Ambulance Service would appear to have an appropriate model of devolved responsibility. However, further investigation has raised issues as to whether practice aligns with documentation at the level of operational management.

Other sections of this report address issues in relation to responsibility for staff management in the Ambulance Service, particularly frontline resourcing in the Operations Division, and the current variation in skills for managing conflict as well as complaints and grievances.

The Ambulance Service has limited the devolution of financial responsibility ahead of developing appropriate financial skills for frontline management. Whilst cost centres have been established at station level in at least one Division, they are held at zone level in others pending the development of effective station-level skills and resources in financial management. The Operations Division has indicated the limited opportunity for input to budget planning, although there is a process for proposing amendments to centrally allocated budgets. It is understood that a more "bottom up" planning process is being considered for future years.

A number of consultations raised specific concerns regarding central override of local decisions or requests having a direct impact on delivery of services. An example was procurement of clinical supplies, with some orders from stations being reduced unilaterally by central stores, without investigation of the specific reasons for such orders.

Whilst staff leadership forms an important element of all management position descriptions in the Ambulance Service, there is a significant variation across the service in terms of leadership capacity, and a concentration on day-to-day operational issues at the expense of strategic management.

Consultations with staff (up to and including station-officer level) indicated a staff perception of an overwhelmingly negative management culture, where contact with management regarding performance occurred only when staff had (or were perceived to have) done the wrong thing. This direct feedback confirmed findings in corporate culture surveys undertaken by the Ambulance Service in recent years.

There was little indication that station officers either identified with senior management or were identified as “management” by paramedics. It is likely that this is a result of the large variation in spans of responsibility for station officers in the current structure, resulting in many station managers giving higher priority to their on-road fleet and stock responsibilities than to staff management.

There was comment from a minority of sectors (subsets of geographical Divisions) regarding positive local management initiatives and the value of frontline management training. This feedback reinforces the value of the Ambulance Service’s proposed station manager structure review, and ongoing investment in management training.

Recommendation:

That the Ambulance Service:

- assess its governance systems against the better practice framework in the *Internal Audit Capacity in the NSW Public Sector, Final Report*;
- create a joint Audit and Risk Management Committee better to integrate the assessment of controls on identified risks; and
- benchmark the Ambulance Service current risk management systems and processes against *Australian and New Zealand Standard 4360:2004 – Risk Management*, and develop a strategy to address any deficiencies.

8.3 Business systems and processes

Business information systems (primarily finance and HR) play an important role in enabling an organisation to meet its strategic goals, drive business innovation, and assist a business with its compliance requirements.

Currently, the Ambulance Service uses Sun as its finance system. Its HR system is Supero, a legacy system which is no longer supported by industry. Neither system complies with the Government Selected Applications Systems Strategy. The records system used in Ambulance Service is TRIM.

While the systems themselves are not as important as the processes that support the systems, it does appear that current systems are not meeting expected benchmarks

(discussed further in the payroll section below). The standard of operation of these systems has an obvious flow on effect on the Ambulance Service's ability to manage its business as efficiently and effectively as possible.

The Review is encouraged by the Ambulance Service's desire to move from the current paper-based patient records towards an electronic system, and the obvious implication this has for changing business processes in this area. This presents the Ambulance Service with an opportunity to investigate and re-engineer its processes across the whole business. This opportunity needs to be pursued by the Ambulance Service. While there may be impediments to the Service being part of NSW Health's shared services model (as outlined in the Ambulance Service's submission), it needs to look at utilising the actual physical systems used for shared services.

Payroll service

The Ambulance Service has 23.4 FTEs in its payroll services. These staff service 3,734 employees across 221 pay locations.

Payroll service in the Ambulance Service is largely a manual system with limited automation (e.g. some spreadsheets are used to simplify calculations). Many processes are manually intensive and paper based, resulting in significant work effort and associated cost inefficiencies and reduced data quality.

There is limited standardisation and consistency of procedures across the offices. One reason for this is the complex award system in the Service, with ten different awards across the State.

The Department of Commerce payroll benchmarking data indicates that the Ambulance Service is more expensive and inefficient than both NSW Government and global benchmarks for such services:

- the Ambulance Service has about 160 employees to each payroll FTE (for 2007/08), significantly below the NSW Government benchmark of 250 and the global benchmark of 506; and
- the Ambulance Service's average direct cost of payroll per employee paid is about \$410 pa for 2007/08. This is significantly higher than the benchmarks of \$283 pa (NSW Government) and \$234 pa (global).

It is acknowledged that rosters and penalties will always complicate Ambulance payroll arrangements to some extent, even when (and if) they use electronic systems. However, on this analysis there is room for improvement in moving towards the benchmarks. A link with the NSW Health shared corporate services entity would provide opportunities for such improvement.

Recommendation:

That the Ambulance Service review its key financial and human resource transactional processes, with a view to optimising automation, reducing corporate overheads, and ensuring compliance with government policies. Where appropriate, ICT systems should mirror those used elsewhere in the NSW Health department. Where benefits can be clearly identified, the Ambulance Service should consider shared service arrangements with NSW Health.

Debtors

The 2005 IPART Report noted the high rate of bad debts for the Ambulance Service. Three main factors were identified.

- First, there is the low level of public awareness about ambulance charges. It appears that this has not changed much since the publication of the IPART Report;
- Second, those incurring ambulance charges tend to be of lower socio-economic status and this affects their overall likelihood of paying. The Review Team is not convinced of this given the large number of current exemptions; and
- Finally, the low value of debts does not warrant legal debt recovery. While the value of the individual debts may be low, the aggregate total is economically significant and legal action to recover it can be justified.

It should also be noted that the Ambulance Service has 49.45 FTE staff engaged in revenue accounting functions statewide.

IPART's recommendation for improving bad debts and debt collection consisted of a public education campaign to raise people's awareness. This has not been substantially implemented.

Table 9 shows the bad debts for both the Ambulance Service and the MAS for the past three financial years.

Table 9: Debt Comparisons

	2004/05	2005/06	2006/07
Ambulance Service of NSW (\$,000)	6,400	9,591	12,770
<i>% Change</i>		49.8	33.1
Metropolitan Ambulance Service (Melbourne) (\$,000)	6,013	6,622	8,277
<i>% Change</i>		10.1	24.9

In 2004/05, the level of bad debts was approximately the same in NSW and Victoria. In the two years since, bad debts in NSW have doubled while in Victoria the increase has been about 37%. In 2005/06, the new charging regime commenced in NSW and this probably explains part of increase in that year. There was also a significant increase in activity in this year. Bad debts as a proportion of revenue (sales of goods and services) have increased from 8.6% in 2004/05 to 10.8% in 2006/07. The increased activity alone does not account for the deterioration.

Based on year-to-date figures it is expected that there will be a further deterioration in 2007/08. The current situation with bad debt in the Ambulance Service is not acceptable.

Recommendation:

That, subject to finalising and promulgating its Hardship Policy, the Ambulance Service develop a comprehensive policy and procedures to improve performance with respect to the collection of bad debts.

8.4 Performance management

Structured performance management offers opportunities for performance feedback as well as individualised staff development and career planning. It also simplifies management of performance related issues, allowing resolution at the local level, rather than referral to units such as the PSCU.

The Service indicated in its submission to the Review that:

“All managers down to District Officer, and some station officers, have performance agreements. Each business unit has a business plan linked to the overall strategic direction of the Ambulance Service. Linkages with the Department of Health strategic directions have been improved.”

However, the Review has seen little evidence that individual performance management plays a role in improving staff performance or development opportunities in the Ambulance Service.

Staff performance management has been raised as an issue in most reviews of the Ambulance Service in the last ten years. In the Ambulance Service’s submission, to the Public Accounts Committee’s 2004 *Inquiry into the NSW Ambulance Service: Readiness to Respond* indicates, the Service stated that it had:

“...developed a set of core management competencies for Ambulance managers based on NSW Health Executive Development Centre competencies. All senior managers have now been assessed through an external Management Assessment Centre environment.

The results of these assessments are now forming the basis of development plans, with training and development requirements, for managers ...

... At the same time the Service has developed a performance management model that combines individual management goals arising from the Service’s new Performance Agreement with NSW Health with personal development targets for individual managers to support and monitor the changes to management approach being disseminated across the Service.

Staff appraisals have been developed for staff and are currently the subject of consultation with relevant unions. The appraisals will provide a valuable tool in progressing development programs and succession planning.”³⁵

The Ambulance Service submission to this Review also noted the external assessment process undertaken for senior Executive and operational positions. It does not appear that further external assessment of executive staff has been undertaken, or that there is a clear plan for executive development. Consultation has indicated that there is varying management capability and commitment to performance improvement across the State.

The Review strongly supports the concept of a consistent performance management system with “cascading” responsibilities, flowing from the Ambulance Service performance agreement with NSW Health through Ambulance Service corporate and business planning into management and staff performance agreements. However, given the Review’s concerns regarding the lack of firm indicators in the Ambulance Service performance agreement, it believes that a significant upgrading of the

³⁵ *Inquiry Into the NSW Ambulance Service: Readiness to Respond*, NSW Public Accounts Committee (June 2004) p.61.

agreement and a clear, open, ongoing commitment from the Ambulance Service executive is a precursor to a successful performance management system.

A renewed focus on performance management and development at executive level, with managers held accountable for key indicators, both of business performance and staff management, will assist in building trust between management and staff. Communicating a set of key indicators to staff could also be an important initiative.

The Review notes the station-manager structure review proposal which the Ambulance Service outlined in its submission to the MIC. The relative weakness of the current structure has been noted by the Review. It is clear that the Ambulance Service sees implementation of the proposal, which will strengthen and better allocate frontline management resources, as a prerequisite for the creation of a culture better able to manage performance of both individuals and service delivery. The estimated implementation cost of \$3.6 million would be a valuable investment in better management of the Ambulance Service.

The Ambulance Service has been offering a Frontline Management Course since 2006 but without a structured link to succession planning. Its extension as part of the implementation of the new station-officer structure, and extension of the program to paramedics aspiring to these positions, will create a management environment with the skills to support effective implementation of individual performance management and development.

Recommendation:

That, in order to ensure that Ambulance Service managers are well supported in undertaking their roles, the Service undertake:

- a review of all position descriptions for executive/management/supervisory positions to ensure that key accountabilities and management competencies are properly articulated against business requirements;
- an assessment of current management capabilities against revised position descriptions; and
- a training and development program to assist managers to deal with any issues raised in the assessment.

Recommendation:

That, taking account of the previous recommendation, Ambulance Service design and implement a management development initiative targeting those people in operational roles who wish to move into management. This initiative should focus on:

- assessing the suitability of officers to move from operational roles into management positions; and
- for suitable candidates, providing training in a number of core areas: financial management; human resource management; conflict resolution; putting the Code of Conduct into practice.

Recommendation:

That the Ambulance Service establish a more highly structured performance management system comprising the following elements:

- a five year corporate plan;
- annual operational plans;
- annual performance agreement with NSW Health; and
- a staff performance and development system which links individual performance to corporate objectives.

8.5 Advisory Council

The Ambulance Service Advisory Council is established under Section 67C of the *Health Services Act 1997*. The legislation allows the Minister to appoint between eight and 12 members, of whom at least three are to be staff of the Ambulance Service.

The role of the Council is to provide advice to the Director-General, NSW Health on the exercise of the Director-General's functions in relation to the provision of Ambulance Services. The Council was established in November 2006 to replace the Ambulance Service Board. Up until that time, the Chief Executive of the Ambulance Service was responsible to the Board.

In November 2006, the Minister for Health appointed the previous Ambulance Board members to the Council. The Chair is the Hon. Barrie Unsworth. The other members currently include the Chief Executive of the Ambulance Service, four external members and four members from the staff of the Ambulance Service.

As already mentioned, the Advisory Council now has a purely advisory function compared to the management role exercised by the previous corporate board up to 2006. From discussion with some Advisory Council members, it is clear that there has been a period of transition and adjustment from the Board to the new advisory Council arrangements and that greater clarity and focus in its role is required.

Nonetheless, the Ambulance Service has been keen to continue to utilise the resources and expertise of Council members. Accordingly, there are regular meetings of the Council and the Service provides full briefings to it on relevant matters. The Council receives audit, finance, training and clinical governance reports from the Executive Management Board.

The Review considers that the Advisory Council provides a valuable 'sounding board' to the Ambulance Service and should be retained. However, when the Government next considers appointments, there may be an opportunity to revitalise the Council by the appointment of additional external members. One or two additional appointments could be made within the scope of the existing legislation. The appointees could have medical expertise and/or reflect consumer and community interests.

Recommendation:

That the Ambulance Advisory Council be retained with its broad advisory function.

8.6 Relationship of the Ambulance Service with NSW Health

As indicated elsewhere in this Report, the Ambulance Service is now a “health services function” of the Director-General, NSW Health. It was, until 2006, a separate statutory corporation with its own legislation, and with a Chief Executive reporting to the Ambulance Service Board and to the Minister for Health.

The Director-General, NSW Health is now formally responsible for the delivery of Ambulance Services under the *Health Services Act 1997*. However, operational and organisational management functions have been delegated to the Chief Executive of the Ambulance Service.

The Chief Executive of the Ambulance Service is a member of the NSW Health Executive and, as such, attends regular meetings at NSW Health. There is the opportunity for strategic and corporate input at this senior level.

The Review perceives that the general day-to-day operations of the Ambulance Service are directed appropriately by the Chief Executive. However, given the integration of the Ambulance Service into NSW Health, there is still some way to go in ensuring that the appropriate opportunities existing for ambulance-related input into the NSW Department of Health Strategic Plan³⁶. There appear to be opportunities for greater strategic and business input by the Ambulance Service, especially on measures to reduce attendances and waiting times in EDs.

Whilst the Ambulance Service has a Performance Agreement with NSW Health, an analysis of the current agreement indicates that it primarily requires reports on sets of activities or outputs. As presently itemised and reported, the Agreement lacks clear outcomes and accountability for performance. It should provide for quantifiable targets (see earlier discussion).

A further issue is the relationship between Ambulance Service staff and health (particularly hospital) personnel at local and regional levels of the State. The Review found that there are generally good working relationships at these levels. Often, however, a lack of prior planning or consultation with the Ambulance Service by the local AHS affected Ambulance operations.

During consultations with ED clinicians at selected hospitals in Sydney, serious concerns were expressed to the Review about poor communication channels with senior managers within Ambulance Service Headquarters. Issues reported to Ambulance Service managers were not given an informative response. It was not clear whether the concerns expressed by selected clinicians at one or two hospitals were widespread across the state.

On a more positive note, the patient allocation matrix developed by the Ambulance Service in concert with selected hospital and medical staff, is generally lauded by hospital staff and stakeholders as an effective method of managing access block and reducing off stretcher times. The conceptual framework for the matrix has been used by several other Ambulance Services to assist them in matching ambulance transports to hospital capacity.

The matrix provides real time information to ambulance officers in Sydney, the Central Coast, and Newcastle and assists them to identify the best hospital destination for their patient. The increasing specialisation of many hospitals means that it is

³⁶ *A New Direction for NSW Department of Health - Strategic Plan Towards 2010* (May 2007)

important that ambulance paramedics are able, wherever possible, to transport patients to a destination where they can be treated without being transported elsewhere. The matrix is not used for life threatening cases where the patient will be sent to the closest hospital ED.

There were reports from some stakeholders that the matrix is subject to dysfunctional outcomes because of specific patient requests and paramedic non-compliance. The patient can demand to be taken to a specific hospital and often this requires negotiation with the paramedic who is likely to be better informed about the appropriate destination for care.

The functionality of the matrix and its capacity to improve operations needs to be better communicated to relevant stakeholders. In addition, hospital EDs should continue to be engaged by the Service continuously to improve both the use of the matrix and the appropriateness of clinical profiling.

Recommendation:

That NSW Health ensure that it has mechanisms in place to secure Ambulance Service inputs to its strategic and corporate planning.

8.7 Relationship of the Ambulance Service with other agencies

The Ambulance Service has long and established relationships with the other State emergency service providers: NSW Police, NSWFB, the State Emergency Services (SES) and the Rural Fire Service (RFS). It is also a key member of the State Rescue Board.

The Ambulance Service has a key role under the *State Emergency and Rescue Management Act 1989* whereby the State Emergency Operations Centre (SEOC) is activated in the event of an emergency such as a natural disaster.

The Review found that there are solid and good professional relationships between the Ambulance Service and the emergency services agencies at both the executive level and in the field (with one exception – see below).

NSW Police have a Memorandum of Understanding (MOU) with NSW Health / Ambulance Service on the transport of mental health patients. Coupled with the introduction of a new policy on the use of restraints for mental health patients, the arrangements between the agencies appear to be working well.

Ambulance Service staff have reported that Police are often reluctant to attend certain incidents, particularly assaults at licensed premises and domestic violence incidents, and that Ambulance officers have become ‘de facto Police’. They are dispatched to these scenes and become the authority in attendance, often with resultant threats or risks of violence. The Ambulance Service and NSW Police have established a working party to develop protocols and procedures for the two services in handling such incidents. The working party is expected to report shortly.

The Ambulance Service, NSWFB, RFS and SES have formed a partnership to establish the Community First Responder scheme in rural New South Wales. Pilot sites have been developed at eight remote locations to provide training for officers in early intervention pending the arrival of Ambulance paramedics. There is shared

funding between the agencies for this scheme and once an assessment is made of the level of training and support infrastructure required, some expansion may be considered.

The Ambulance Service and the RFS have developed a draft MOU to formalise the working relationships between the two agencies. There has been improved planning between them since the major bushfires in the mid 1990s.

9. WORKFORCE MANAGEMENT

9.1 Workforce profile and staffing

As at 1 November 2007, the NSW Ambulance Service employed the full-time equivalent (FTE) of 3,763.43 staff. Over 87% of staff (3,280.95) were in the Operations Division, with 38.6% of all staff in the Sydney Division.

Total staff had increased by 19.03% since 30 June 2003. Staff in the Operations Division had increased from 2,789.82 to 3,280.95 (17.6%), whilst other staff had increased from 372 to 469.09 (26.1%) over the same period.

The proportions of staff in other areas were 2.4% Clinical Development, 4% Corporate Services, 3.4% Finance and Data Services and 0.2% Health Counter Disaster Unit. A total 1.1% of staff is in the Executive Directorate and supporting the General Manager, Operations.

As at 30 June 2006, the median age of all employees was 40, with a median length of service of almost 8.36 years, compared to 44 and 7.7 years respectively for the NSW public sector as a whole. Women made up almost 31% of staff, and were on average younger (35) than male staff with just under half the median years of service (5.04). Almost 35% of staff are over 45 years of age (compared with almost 50% for the NSW public sector) with almost 9.5% over 55 years of age (16.87 % for the sector).

Staff turnover in the NSW Ambulance Service is comparatively low, recording 6.07% for non-casual staff in 2006, compared to 9.37% for the NSW public sector as a whole. Ambulance Service data indicate that turnover is lower for Ambulance officers than for other staff in the Ambulance Service, at 3.9% for 2006/07 and averaging 4.5% over 1999/2007.

Current base salary ranges for Ambulance Service operations staff (including Paramedic and Advanced Life Support (ALS) skills allowances as indicated) are outlined in the Table 10. It should be noted that, in late 2007, the Ambulance Service adopted the term Paramedic rather than Ambulance officer. Base salary has increased by a cumulative 27.7% since the beginning of 2003.

The rates shown in Table 10 are base salary only. Rostered staff are paid shift penalties of 10-15% for working afternoon and night shifts. Saturday shifts are paid at time-and-one-half, Sunday shifts at time-and-three-quarters.

Base salary rates for NSW Paramedics are higher than those in Queensland but are currently a little below those in Victoria. Victoria has also “rolled up” shift penalties, with the resulting rate used to calculate other salary based penalties and superannuation. Base salary for front-line managers is higher in both those jurisdictions, although responsibilities may also be higher.

As a point of comparison, commencing base salary rates for ambulance officers and registered nurses are relatively close across all three jurisdictions. However, a registered nurse at the top of the relevant standard pay scale is paid a base rate 10% or more higher than that paid to an ambulance officer. Specialist nurses and nursing unit managers also have a significantly higher salary rate than do higher-level paramedics and station officers.

It has been suggested that a relatively low base salary for paramedics perpetuates an “overtime culture” to increase take-home pay, which can entrench some inefficient work practices and increase fatigue as a safety issue. There is likely to be a

significant increase in base salary as an outcome of the Major Industrial Case (MIC), but it remains to be seen whether this will be sufficient to have a significant impact. Other initiatives, such as “rolled-up” rates may need to be pursued in the future to reduce reliance on overtime.

Table 10: Classifications and Salary Ranges

Classification	Current salary range
Patient transport officer	\$37,674-\$39,359
Trainee Paramedic	\$41,337
Paramedic intern	\$42,505.83-\$43,319.84
Paramedic	\$44,499.10-\$49,435.33 (7 steps)
Paramedic plus ALS	\$51,230.32-\$52,853.12 (3 steps)
Paramedic plus Paramedic	\$50,223.25-\$54,314.16 (6 steps)
Station Officer	\$52,284.36-\$53,175
Station Officer plus ALS	\$55,702.15-\$56,594.43
Station Officer plus Paramedic	\$57,163.19-\$58,055.47
District Officer	\$54,928.00
District Officer plus ALS	\$58,345.66
District Officer plus Paramedic	\$59,808.72
Clinical Training Officer (plus ALS-Paramedic)	\$56,594.43-\$59,808.72
Clinical Educator	\$70,223.84-\$78,108.24 (3 steps)
Clinical Educator plus ALS	\$73,641.63-\$81,526.03 (3 steps)
Clinical Educator plus Paramedic	\$75,102.67-\$82,987.07 (3 steps)
Superintendent	\$53,552.30-\$57,236.20
Operations Manager	\$71,779.33-\$109,294.14 (4 steps)

Overtime penalties are paid in addition to shift penalties. When used appropriately, overtime can be an effective mechanism for addressing short-term variations in demand for ambulance services. In addition, staff working overtime is the only current means for the Ambulance Service to provide coverage for staff on sick leave. However, if demand for services increases without either an increase in or more effective use of staff resources, overtime is the only response available to meet the demand.

Overtime hours paid in the Ambulance Service in 2006/07 were 2.4% higher than in 2005/06 with a total overtime bill of almost \$54 million. Responses increased by 5.3% over the same period. Overtime hours paid in 2006/07 were 13.4% higher than

2002/03, compared to 17.5% increase in responses. A comparison of increases in responses, staffing, overtime and base salaries is included in Table 11.

Table 11: Responses, Staffing, Overtime and Base Salaries

	Ambulance responses	Operations Division Staffing (FTE)	Overtime Hours Paid	Overtime cost	Paramedic base salary (cumulative)
% Increase 2006/07 over 2002/03	17.5%	17.6%	13.4%	36.8%	22.8%

Table 11 shows that the increase in overtime cost is relatively proportionate to hours paid, once salary increases are taken into account. The amount of overtime paid has increased when staff numbers have increased in proportion to overall responses – no clear explanation for this is evident. Factors may include:

- reduced impact of staff increases in non-urban areas with a move to increased double crewing;
- the 62.3% increase in late meals and call-offs (LM&CO), i.e. penalties for late or broken meal breaks in metropolitan areas; and
- the 17.6% increase in call-outs in non-urban areas. Call-outs make up 43% of overtime hours paid.

On average, overtime payments in 2006/07 ranged from \$11,249 per staff member in the Sydney Division to \$23,059 in the Western Division, with call-out payments being the significant difference. In 2005/06, 10.1% of staff earned over \$50,000 each in overtime.

Staff from a number of non-urban locations made negative comments to the Review about the level of ad hoc call-outs (as opposed to rostered on-call work). The issue was of particular concern for staff at smaller/more isolated stations, with a view expressed that they sometimes left town to socialise so that they could not be called out when not rostered.

Both the Ambulance Service and some Health sector stakeholders have provided anecdotal evidence of work practices whereby paramedics are able to maximise the payment of LM&CO and “extension of shift” penalties including, in some circumstances, “penalty on a penalty” payments. The Ambulance Service has proposed a new approach to LM&CO in its submission to the MIC which, if accepted, will reduce such payments.

9.2 Staff deployment and relief levels

Roster arrangements for individual stations are determined by a combination of historical demand data and “essential deployment levels” (EDLs) which have been agreed with the HSU. As discussed elsewhere, more flexible, effective rostering is limited by the use of a manual system within the Ambulance Service, along with a lack of in-house tools to model demand trends in a timely manner.

In its submission to the Review, the HSU argued that the Ambulance Service is not able to meet EDLs due to insufficient staff. The Ambulance Service has expressed the view that EDLs are met in the overwhelming majority of cases, that fixed EDLs do not allow for variations in demand (e.g. winter peaks), and that a more flexible deployment approach using regular and ongoing in-house and that demand modelling would better meet patient needs.

A lack of appropriate relief can affect patient outcomes through staff fatigue and restrictions on staff updating clinical skills. Currently, the Ambulance Service attempts to build into deployment a relief factor of approximately 30% to cover 12 weeks absence per officer to allow for annual and other types of leave (including average sick leave) and organisational priorities such as training and recertification without resorting to the use of overtime.

The Ambulance Service has indicated an intention to increase the relief factor to bring it closer to 34% to support, in particular, proposed training and recertification initiatives. It is understood that modelling is currently being undertaken to support implementation of the higher relief factor in non-urban areas in the first instance.

When insufficient staff are available to fill roster lines (e.g. unfilled vacancies or multiple staff on sick leave on the one shift), staff are called in on overtime to meet rostered demand. Staff have also reported inconsistency in different locations, with some stations designating the newest arrivals “relief” officers and others sharing the responsibilities across all officers.

Data provided by the Ambulance Service shows rostered relief rates generally approaching or exceeding 30% across the Southern, Northern and Western Divisions. The Ambulance Service has flagged difficulties in providing consistent relief across the Illawarra Sector of the Southern Division, most particularly in the Shoalhaven Zone. Although staff based at the large Wollongong and Bomaderry stations are used to support smaller stations, continued work is needed to resolve this issue.

In the Sydney Division, as well as the Central Coast Sector of the Northern Division, a more flexible approach has been adopted, with a proportion of relief resources centralised at sector level and allocated on an “as needs” basis to stations.

It is understood that relief is generally acceptable within the Sydney region. The Ambulance Service has acknowledged to the Review that relief rates in the Central Coast Sector are less than optimal and that this issue will be addressed as a priority in the context of both this Review’s findings and those of the IRC in relation to the current MIC.

Recommendation:

That the Ambulance Service seek agreement with the Health Services Union on the transparent implementation of demand-based rostering that ensures that resources are matched to peaks and troughs in demand for ambulance services.

9.3 Appointment and transfer

Off-road positions

All off-road positions are filled by advertising and merit selection. Where appropriate, the position descriptions include qualification requirements. Preference is not given to ambulance officers unless the job requires capabilities held by ambulance officers. Internal stakeholders have raised concerns regarding the timeliness of the process, given the need to advertise within the Health system for displaced staff, prior to advertising in the press.

Operations positions

Initial selection

Initial selection for paramedics involves open merit selection, including application, aptitude (psychometric) testing, interview, and driving assessment as well as health, probity and reference checks. Applications are assessed every two or three months when sufficient numbers have been received. A similar process is followed for the selection of patient transport officers.

Discussions with the Ambulance Service have indicated that it may be opportune for some review of the process to occur, particularly with respect to the aptitude-testing component. Consultation with relevant stakeholders, particularly academic stakeholders, would be a useful component of such a review.

Initial deployment

Trainee paramedics are currently deployed in their second year of training. They are able to nominate preferred locations, and are deployed to their most preferred location with current vacancies. Whilst this allows the Service to fill vacancies on an ongoing basis, negative outcomes include:

- staff with a preference for regional and rural locations being appointed to metropolitan locations, due to the vacancies available at time of deployment; and
- locations with high staff turnover having a higher than optimal number of trainee paramedics, as these locations are the most likely to have current vacancies.

Patient transport officers are primarily deployed in the Sydney metropolitan area, with transfer to positions in Newcastle and Wollongong based on competitive merit selection.

Transfers

The Ambulance Service does not have a coordinated statewide transfer process. There are a number of processes in place for transfer within the Operations Division:

- Sydney Division – has two processes:
 - ⇒ a “transfer list” for movement within the Division (effectively seniority based, from the time the staff member’s name goes on the list); and

- ⇒ advertisement within the Ambulance Service of Sydney Division vacancies on at least an annual basis, with rural and regional staff competing for these vacancies on merit.
- difficult to staff rural locations – requests for transfer are considered at any time; and
- other rural and regional locations – positions are advertised as needed and filled by merit selection.

Staff have expressed considerable dissatisfaction with these processes, particularly with the lack of transparency and feedback. Whilst merit selection is generally accepted in principle, it is not perceived to be carried out fairly and consistently. In particular, staff perceive that qualifications are given a higher weighting than experience, and that management “plays favourites” in some locations.

Staff who are deployed to less attractive locations feel “stuck” in those locations, with no real indication of when they may be able to move to a preferred location, and no recognition of their “sacrifice”. They highlight the example of other agencies which provide priority transfer to preferred locations following an agreed period of service.

As part of its submission to the IRC in relation to the MIC, the Ambulance Service proposed a revised transfer system that aims to reward staff for service in less attractive locations. Through “points” allocated after two years service in a location, relevant staff would be given higher priority in the transfer process. It is understood that the Ambulance Service and the HSU have discussed similar systems in the past without reaching agreement due to a perception that metropolitan and coastal staff (the majority of members) would be disadvantaged.

Compassionate transfers

Staff expressed concern regarding the assessment of applications for compassionate transfer. There is a perception that some staff have been able to abuse the system to gain permanent transfer, whilst others with legitimate claims have been denied transfer.

In recent years, the Ambulance Service altered its compassionate transfer system to provide temporary transfers rather than permanent transfers and to enable the Service to seek confirmation of medical recommendations from an external provider. These changes provide staff with an opportunity to resolve immediate issues and return to their “home” location whilst removing any incentive to abuse the system.

Recommendation:

That the Ambulance Service develop, in consultation with staff and unions, a staff transfer policy that is clearly understood, is applied fairly and transparently, and provides the opportunity for feedback to staff on their applications.

9.4 Industrial arrangements

The Ambulance Service has formally established Joint Consultative Committees (JCC) with both the HSU and the USU. These committees meet at least quarterly. Both the HSU and USU have provided formal submissions to the Review.

With the HSU, there are standing JCCs with documented procedures at both statewide and individual geographical division level. These procedures include provisions to establish Sector (i.e. groupings of stations below geographical Division level) JCCs to address more localised reforms. The HSU covers paramedics and patient transport officers, with a high proportion of staff being union members.

Apart from these formalised, coordinated consultative mechanisms, paramedics are also represented by over 15 local HSU sub-branches.

A separate statewide JCC is in place between the Service and the USU. The overwhelming majority of staff covered by the USU work in the Operations Centres as call takers.

There has been little feedback to the Review regarding the operation of these formal consultative mechanisms, but the ongoing relationship between the Ambulance Service and the HSU is highly adversarial. The Review has observed that, as well as ongoing discussions between the Service and statewide HSU representatives, local sub-branches are active in pursuing their members' interests. Over time, Ambulance Service management has responded locally to such issues, rather than adopting a coordinated approach.

As a result, in addition to the major industrial awards for paramedics, there are over 40 local formal and informal agreements in place, covering such matters as local callout arrangements, specification of vehicle type, and access to rostered overtime for sporting events. This plethora of local agreements complicates rostering, dispatch processes and payroll administration. The agreements have also been cited as a limiting factor in adopting an integrated electronic rostering system.

The Review has received comment that, at times, the respective roles of union delegates and management are not well understood. This has resulted in some delegates, knowingly or otherwise, attempting to direct management on particular matters. There is value for both the Ambulance Service and the HSU in clarifying their respective roles to reduce the potential for conflict.

The USU has raised with the Review its ongoing campaign for increases in call-taker staffing levels. In addition, as the USU has noted that salaries for Ambulance Service call-takers are below those of call-taking staff in comparable NSW public sector call centres.

Recommendation:

That, as a means of improving the relationship between the Ambulance Service and the Health Services Union, the Ambulance Service undertake the following as a matter of priority:

- Review current arrangements for the operation of the Joint Consultative Committees;

- Prepare, as a basis for consultation with unions, draft guidelines for the management of future organisational change (including the process for change management for both clinical procedures and corporate processes); and
- Develop an agreed process for undertaking any future staff ‘climate’ surveys, dealing with the frequency and focus of surveys, reporting of survey findings to staff, and the process for responding to key issues raised by staff in surveys.

9.5 Organisational health – OH&S, counselling, staff support

In 2006, the Health sector overall had a sick leave rate (hours of sick leave per 1,000 hours paid) almost 8.5 % higher than the NSW public sector as a whole. The Health sector rate has trended up whilst the rest of the public sector has trended downwards. A higher than average rate is to be expected, with the work of most staff requiring face-to-face patient contact.

The rate for ambulance officers, although comparable with the QAS, was almost one-third higher than for nurses in NSW. Sick leave taken by NSW ambulance officers is significantly lower than that taken by their Melbourne counterparts.

The common factor for public sector classifications in NSW with sick leave rates similar to or higher than those for ambulance officers is that staff on sick leave are replaced with other permanent staff paid at overtime rates.

Following an Industrial Relations Commission (IRC) ruling in 2006, the Ambulance Service implemented a revised Sick Leave Policy and Procedures more actively to manage staff with sick leave levels which have become a cause of concern. Initial data from the Ambulance Service suggests a small decline in the sick leave rate from 2006 to 2007. Further implementation of this procedure, combined with the possibility of increased workforce flexibility resulting from the MIC, may see the rate decline further, with a consequent decline in some overtime payments.

The Ambulance Service is active in improving its workers’ compensation performance, setting specific targets and reporting on these to the Performance and Risk Management Committee. By mid-2007, approximately one-third of staff had been trained in OH&S risk identification and management.

After several years of growth in the number of workers’ compensation claims, the number of claims fell by approximately 8% from 2005/06 to 2006/07. Since 2002/03, there has been a 74% decline in permanent partial disability claims, although in 2006/07 this category made up only 0.8% of all claims. There has also been a downward trend in the average cost of claims.

Claims for “body stressing” (largely manual handling/lifting) made up almost 44% of all claims in 2006/07, 8% fewer than in the previous year. The cost per claim was also less than in the previous year. The service has been providing manual handling training to reduce “body stressing” claims, with over half of paramedics having undertaken this training by mid-2007.

Claims for “being hit by moving objects” were almost halved between 2004/05 and 2006/07 (6% of claims in 2006/07), and there was a reduction in “mental stress” claims (5% of claims in 2006/07). Although the highest cost per claim continued to be for “mental stress”, there was a significant reduction in the cost of completed claims from 2005/06 to 2006/07.

Of concern is the 31% increase between 2005/06 and 2006/07 in claims for “biological factors” (15% of claims), although these claims (for things such as needle stick injuries and contact with bodily fluids) have by far the lowest cost per claim overall.

The reserve balance for 2006/07 for claims (amount expected to be paid out in future years for current claims) is slightly higher than the amount paid for claims. Strategies to facilitate a safe, early return to work, including workplace flexibility, are often the easiest means of reducing a large reserve balance.

It is unclear to what extent fatigue is a factor in the Ambulance Service’s high sick leave and ongoing workers’ compensation performance. Non-urban staff in particular highlighted fatigue resulting from on-call work and call-outs as well as long-distance transports as particular issues in their work environment. Urban staff linked extension of shifts to fatigue.

The HSU, in particular, has raised fatigue as an issue related specifically to staffing levels. As part of its submission to the MIC, the Ambulance Service proposed both changes to shift patterns (reducing night shift from 14 to 12 hours) and a new fatigue management policy to address this issue more actively. The Review supports the Ambulance Service’s proposals.

Staff Support

Ambulance work often involves caring for the most disadvantaged members of the community. Staff are witness to a range of patient conditions including social isolation, drug and alcohol abuse, mental health disorders, domestic violence, and child abuse and neglect.

Taken together or in isolation, several stressors affect the wellbeing of ambulance workers, and their families in a variety of ways. These stressors have physical, psychological and social implications such as depression, sleeplessness, anger, and withdrawal from social activities.

Some of the key sources of stress for Ambulance Service staff include:

- Work-related trauma;
- Difficult working relationships with colleagues;
- Feelings of isolation – especially for those posted to locations away from their families and friends;
- Stress emanating from complaints or allegations of malpractice or misconduct;
- Fatigue from extended periods of overtime, (especially from repetitive call-outs in less urbanised areas); and
- Long term effects of shiftwork.

Better practice in the provision of staff support for emergency service personnel determines that peer support is one component of a total package to improve the welfare of staff. The Ambulance Service has provided trauma counselling for its employees since 1988. Apart from the role of direct supervisors, support to NSW ambulance staff and their families is provided in an integrated program using three different methods:

1. Peer support officers (about 110 volunteers);
2. Employee Assistance Program (provided by a private service provider); and
3. Chaplaincy services (about 15 volunteers).

Ambulance Service staff volunteer to become peer support officers. The work is additional to their existing duties. Staff undergo an initial assessment session of two days with a psychologist to confirm their suitability and to provide training.

The use of fellow workers for peer support is not only cost effective, but can also be less stigmatising for staff than counselling from a psychologist. The ratio of peer support counsellors to staff within Ambulance Service is similar to that in other emergency services.

It should be noted that the Ambulance Service has performed well in recent years to reduce absenteeism for occupational health and safety reasons. However, during consultations with the Review Team, staff expressed only muted satisfaction for the support services provided to them. Many staff recounted instances of trauma they had witnessed in the course of their work and they reiterated the importance of effective peer support mechanisms.

In its submission to the Review, the USU cited ineffective peer support provided for communications assistants. The USU's concerns centred on the implementation by Ambulance Service management of peer support, rather than on the structure or content of the program.

The following findings relating to staff support were determined by the Review:

- The work of the peer support officers was highly valued by staff;
- Several staff disclosed that they and their family members had accessed the professional counselling services and that these were often useful;
- There is a general shortage of chaplains to assist staff and their families following major incidents;
- There were often tensions between staff in the Operations Centre and frontline ambulance staff following major incidents or traumatic events. It was reported that Operations Centre staff frequently (though often reluctantly) requested that affected ambulance crews make themselves available to respond to further calls;
- There were some reports that local managers needed to improve practices concerning the identification, prevention and treatment of factors that lead to staff stress;
- Staff expressed concern that there were inadequate numbers of peer support officers available at the times when they were required. (It is difficult to determine how widespread these complaints are because the Service does not collect any activity data or report on the use of peer support officers to determine their effectiveness); and
- Existing peer support officers do not undergo any refresher training.

Recommendation:

That, in order to continue to promote the welfare of staff, the Ambulance Service, by the end of 2008, evaluate its program of staff support services (including the list of available programs) and take action on the findings of the evaluation by mid-2009.

9.6 Future directions – wage case

The HSU currently has a Special Case and Work Value claims before the NSW IRC (the MIC), with paramedics, station managers, district officers, paramedic educators and community training officers included in the claims. As at June 2008, hearings are proceeding. The Ambulance Service and NSW Health accept that there have been changes in work value, and have made a salary offer for positions affected by the work value change. In late 2007, staff accepted an interim increase of 4%, pending the IRC's hearing of the case.

The Ambulance Service and NSW Health have seen the case as an opportunity to address what they consider industrial impediments to more effective operations. In its submission to the Review, the Ambulance Service stated that:

“The existing awards are considered to be outdated, inconsistent with clinical and operational changes that have occurred to date and limiting necessary future change. The current award is based on a wage system that is supplemented by a complex system of penalty payments and allowances. In many situations this provides a direct financial disincentive for many officers to take up current and future workplace reforms which have the potential to deliver a better working environment and patient care.”³⁷

In particular, the Ambulance Service has highlighted its proposals to:

- increase the salary base rate for paramedics and reduce reliance on other payments such as meal penalties for late or disturbed meal times;
- collapse the current pay structure of ten incremental levels to five levels so that officers are able to reach the maximum base rate within five years;
- include more flexible work arrangements to manage surges in demand and the impact of short-term absenteeism including roster reform and management of relief staff;
- use more flexible temporary employment arrangements to support more flexible and efficient rostering arrangements;
- improve arrangements to support paramedics in remote and isolated rural practice and to facilitate return to more popular locations; and
- introduce arrangements to facilitate a more even distribution of paramedics with specialist qualification across the state.

The Review supports the Ambulance Service's proposals for change in these areas. Other proposals not highlighted by the Ambulance Service but strongly supported by the Review include:

³⁷ *Submission to the Ambulance Service of NSW Review*, Ambulance Service of NSW, (February 2008)

- a change from 14 to 12 hour shifts, along with adoption of statewide Fatigue Management Guidelines;
- a proposal for a Station Manager Structure Review, as mentioned elsewhere in this Report; and
- a proposal for a single, combined award for Operations Centre staff.

The IRC's ruling in the MIC is awaited, and the Review expects that the Ambulance Service will actively implement changes, if supported by the IRC, in an active, open and transparent manner, with ongoing dialogue with unions.

Once the MIC has been settled, the Ambulance Service will commence negotiations with unions under the Government's current wages policy, which provides for increases of 2.5% per annum, with additional increases available where employee-related cost savings are achieved.

Matters which the Review believes the Ambulance Service may wish to pursue include:

- streamlining/reducing the more than 40 local agreements to improve the efficiency of rostering, deployment, payroll administration and human resource management; and
- further strategies to reduce staff reliance on overtime.

The Review acknowledges that the Ambulance Service and NSW Health are pursuing further employee-related cost savings and positive workforce initiatives as part of negotiations under the Government's wages policy, including streamlining/reducing local agreements.

10. EDUCATION AND TRAINING

10.1 Initial training/graduate entry

Most paramedic recruits in NSW are trained by the Ambulance Education Centre (AEC) within the Clinical Governance Division of the Ambulance Service. The AEC is a Registered Training Organisation, and staff who complete the training receive a Diploma in Paramedical Sciences (Pre-Hospital Care).

In most countries, initial training is largely undertaken in the tertiary sector with significant pre-employment or internship arrangements to ensure students are “work ready” upon graduation. Both Victoria and South Australia appoint only degree-qualified people to paramedic positions, and have entered arrangements with universities for the provision of training. A recent audit of the QAS recommended that it move from primarily in-house initial training to a degree-qualified model over a period of approximately five years, and three universities will provide relevant courses by 2009.

The CAA has, with the assistance of the main university providers, developed a system of course accreditation that is currently being trialled. It is to be used in future by all Australian ambulance services to improve consistency in the quality and content of paramedic courses.

In NSW, approximately 20 graduates with a Degree in Paramedic Practice join the Ambulance Service graduate entry program each year, but make up fewer than 10% of all paramedic recruits. These are mostly from Charles Sturt University (CSU), the single university providing a relevant course in NSW, and have limited on-road placement during their studies, requiring further work orientation following employment. The Ambulance Service is working directly with the university to improve the alignment of its course with the needs of the Service with a view to CSU’s taking on a greater amount of undergraduate training in the future. The Service is also looking to expand the graduate intake program to help meet increasing needs for new recruits.

Movement to a graduate entry model would provide the Ambulance Service with the opportunity further to strengthen the clinical knowledge of paramedics as well as freeing up in-house education resources to support re-certification and ongoing development of current staff. However, adoption of degree qualification would:

- Require the Ambulance Service to work actively with universities over a number of years for the implementation of appropriate courses to provide sufficient students. CSU has indicated that it would be able to grow and service part of the market (possibly rural NSW), but that other universities would also be needed to meet overall demand. Recognition of prior learning by universities would be an important element of any strategy. Developing sufficient workforce supply for Ambulance Service by this method may take up to ten years;
- Require implementation of an internship or other model to allow students to develop their work readiness whilst completing their degree program. Other jurisdictions achieve this through paid employment, whether on probation as a course component or through casual employment during university breaks; and

- Reduce the flexibility to increase initial training rapidly to meet urgent staffing needs.

Recommendation:

That the Ambulance Service develop a policy by the end of January 2009 concerning the minimum educational requirements for new paramedic recruits and ongoing training needs for the existing workforce.

10.2 Clinical services focus of the service, now and into the future

The work of an ambulance paramedic today is more complex than ever before. Traditionally the services provided by an ambulance officer encompassed immediate first aid and pain relief for a patient before transporting the patient to the hospital ED for further treatment.

The changing clinical focus of an ambulance paramedic is inextricably linked to the changing nature of the population and increased evidence from research to practice. A combination of factors such as an ageing population, more people living alone, erosion of the ‘nuclear family’, and the increasing incidence of diseases associated with unhealthy lifestyles such as obesity, diabetes and cardio-vascular conditions inevitably result in a need to service recurring patients with chronic conditions who are not always able to care for themselves. Community expectations are also increasing.

Structural impediments within the allied health and even the social welfare and mental health sectors influence the clinical nature of the work of ambulance paramedics. A shortage of general medical practitioners who ‘bulk bill’, a shortage of after-hours medical services, a dearth of transport options, the concentration of clinical specialist centres, and demand pressures in the community and home care sector often mean that the ambulance, traditionally a service of last resort, is called to transport patient to the ED for non-urgent care.

The clinical training of paramedics in the future is likely to emphasise the importance of identifying appropriate interventions for chronic conditions associated with gerontology and for the other conditions mentioned above. One of the highest volume ambulance services in the world, the LAS, deals with over 80,000 falls in the home per annum and it is widely recognised that their training needs better to reflect the nature of the work they are called upon to undertake.³⁸ The appropriateness of the Ambulance Service to meet the demand for chronic health conditions that are non-urgent in nature is explored further in Section 7, Demand Management Approaches.

Ambulance officers within the Ambulance Service are now classified as paramedics in recognition of the increased skills and training provided to them. The list of equipment, pharmacology, and clinical protocols associated with the increased skills and training of ambulance paramedics is extensive. As with other areas of allied health, the pace of clinical change is rapid. During consultations with Ambulance Service staff, the Review Team were consistently informed that the reality of

³⁸ Source: Phone interview with Peter Bradley, CEO, London Ambulance Service.

ambulance work for most paramedics in NSW is providing medical assistance and transport to aged care patients and concession cardholders who are exempt from fees.

10.3 The culture of clinical practice

In understanding changes in clinical practice and the effectiveness of enhanced clinical practices, the Service has recognised that more work needs to be done to measure and report on patient clinical outcomes.

The Service is proposing that a research centre be established so that clinical and operational data can be better analysed. A set of clinical performance indicators has also been defined for regular reporting.

Staff have reported to the Review Team that they often have little or no knowledge about their clinical performance (or that of the Ambulance Service) unless an adverse patient outcome occurs. It was not clear to the Review whether compliance with clinical protocols was regularly audited across all divisions and how systematically compliance was reported. There also appears to be scope to improve the communication of good clinical practice and positive patient outcomes. Such events should be celebrated in the Ambulance Service and be communicated by managers to all staff to assist in building a more positive corporate culture.

The Ambulance Service publishes operational protocols for its paramedics which are strictly enforced by management. These protocols are a set of rules which govern what drugs, medical interventions or operational procedures are implemented and in what circumstances. The rules ensure that clinical and operational procedures are consistently applied and based on sound evidence.

Under these protocols, a paramedic is obliged to transport a patient if that patient requests transport to an ED. This has been a long standing practice across most developed ambulance services.

The advancement in the clinical practice of NSW paramedics is often lauded and with some justification. Several awards for clinical practice have been awarded to staff and to the Service including awards for cardiac care, the patient allocation matrix (which matches patients to the most appropriate hospital ED) and others.

The increased clinical training and skills provided to Ambulance Service paramedics over recent years has not translated to a commensurate increase in clinical decision-making as a health professional. Approximately 20-25% of emergency patients are not transported for a variety of reasons such as patient death, patient refusal, transport by other means, treatment at scene, etc. Unless a patient refuses to be taken to hospital, the inevitable result of an ambulance being dispatched is that the patient is transported to a hospital ED for further assessment and treatment, no matter how minor the complaint.

Results from a series of Corporate Culture Surveys report that staff have a low influence on the perceived degree of autonomy in decision making.³⁹ That said, there are some positive initiatives from the Ambulance Service that will address the issue of increased clinical decision-making. These initiatives include the CARE and ECP program.

³⁹ *Corporate Culture Survey Results*, Ambulance Service, June 2007

MAS has shifted to a graduate entry model for new paramedics. Its clinical guidelines (as distinct from protocols), the *Authority to Practice Matrix*, apply to three different staff classification levels based on their experience and qualifications.

These guidelines engender a more flexible approach to clinical decision-making where it can be justified.

“It is also recognised that alternative methods of treatment exist. From time to time circumstances may arise where the management of a particular patient in a life-threatening situation may require the guidelines to be varied in some aspect. Such variations should only be made by Ambulance and MICA Paramedics in the field after appropriate medical consultation, with each such instance being reviewed.”⁴⁰

During the Review, Ambulance Service staff complained of a mechanistic, command and control mode of management where any diversion from the published clinical protocols is met with an investigation and an assumption of guilt until proof of innocence. Staff reported that they were neither encouraged nor adequately supported by management to make professional clinical decisions about patient care, especially in relation to the non-conveyance of patients such as those with non-acute conditions. Staff were very wary of disciplinary action if they diverted from clinical protocols.

The Ambulance Service operates a “Variation to Clinical Practice” program to review any departures from clinical protocols. This program promotes a consistent approach to patient care and assists in continuous improvement.

The culture of the Ambulance Service is very different from that of the Western Australian Ambulance Service, operated by the St John’s Ambulance Service, where “Allowing Mistakes” is considered acceptable and is even one of the published strategic directions for the service.⁴¹

Both the Department of Health and the Ambulance Service is recognising that more work needs to be done to promote alternative treatment methods of service delivery and for paramedics to avoid taking patients with low-level needs to an ED.

Interface between clinical development and operations

Organisationally within the Ambulance Service, management responsibility for the Clinical Development Division is separated from the Operations Division. The Clinical Development Division undertakes a variety of clinical functions, such as advanced care projects, senior medical advice and clinical review and governance, education, clinical professional development, clinical performance, etc.

The Clinical Development Division also manages Paramedic Educators and Clinical Training Officers (CTOs) who undertake a range of training and quality assurance functions to ensure that paramedics are adequately trained and that their skills are tested. There are approximately 75 CTOs across the state. There is widespread support from most stakeholders consulted by the Review for the CTO model of training in the field, but the view was expressed that there is an overall shortage of officers. Many CTOs are highly valued but there were at times difficulties in

⁴⁰ Melbourne Ambulance Service and Rural Ambulance Victoria: *Clinical Practice Guideline* CPG:PR002 Version 4

⁴¹ Source: *Annual Report 2006/07 St John Ambulance*, Western Australia

coordinating and planning training sessions given that CTOs did not report to operational managers. These obstacles could be overcome by closer long term (joint) planning and ensuring that there is adequate coverage of CTOs to backfill occasions of leave.

It was not always possible for staff to attend training sessions when they were not on shift. This was especially the case in rural areas where there was significant travel involved for the staff member whose only recompense in most circumstances was time off in lieu. The operational practices for compensating staff who attended training appeared to be inconsistent.

Given that the employer (the Ambulance Service) is the certifying authority and that most staff are trained in-house, it would be prudent to retain an in-house quality assurance and training function. It was apparent to the Review that the training provided by CTOs was not systematically evaluated. This was reflected in staff reporting that the quality of training was highly variable depending on which CTO was attending. To ensure that this model of training is cost-effective, and in line with better practice in the wider training industry, the Service should consider evaluating all CTO training and take management action where necessary to aid continuous improvement.

The Operations Division is ultimately responsible for implementing new clinical procedures. Consultations with stakeholders during the Review made it apparent that there was friction and division between clinical and operational areas, given that there are resourcing considerations on both sides when new initiatives or clinical practices are implemented. This finding reflects the results of the corporate culture surveys which consistently report that lateral relations between groups are poor.⁴²

In summary, there is scope for the Service to improve the working relationships between operational and clinical managers. It is imperative that there are strong business planning skills available to the Service so that the resource impacts of any new initiatives (whether they be clinical or otherwise), can be estimated accurately. It is also important that the Operations Division enforces compliance of clinical and operational protocols. For example, all information for PHCRs need to be recorded accurately by paramedics so that the clinical data is of high quality to aid a range of reporting requirements such as regular clinical performance indicators.

10.4 Inappropriate use of ambulance resources by the public

Hoax calls or requests for an ambulance where one is not clinically justified can be a significant management challenge for ambulance services around the world. The deployment of an ambulance, especially with lights and sirens, presents a potential risk to pedestrians, ambulance paramedics and other motorists with the increased probability of injury or death from accidents in transit to and from a scene. There are also financial costs related to increased wear and tear on vehicles, staff costs, and the like.

There is widespread evidence that the inappropriate use of ambulances is a problem in many jurisdictions. There have been various estimates from peer reviewed academic research showing that inappropriate use may range from 15% to 45% of all ambulance

⁴² *Corporate Culture Survey Results*, Ambulance Service, June 2007

transports.⁴³ Studies have also shown that pricing signals for ambulance services may also influence use. Those who are exempt from fees are more likely to use an ambulance for clinically inappropriate means.⁴⁴

Staff reported that there were many instances of inappropriate use of ambulances by the public. Often, especially in non-metropolitan areas, a relatively small number of patients with chronic or mild medical conditions and without access to their own transport, regularly demand to be taken to the hospital (or to an area in town) by an ambulance. There was anecdotal evidence from a range of staff that seasoned triple-0 callers knew how to answer call triage questions strategically to ensure that an ambulance is dispatched despite their condition being neither acute, nor warranting an ambulance deployment.

It is apparent that the nature of the clinical conditions of many such people would be more appropriately serviced by a general medical practitioner or by a community service provider rather than by a highly trained double-crewed ambulance resource whose ability to respond to a genuine medical emergency is thereby diminished. There was anecdotal evidence from several staff that many of these callers displayed mental health disorders.

Once emergency calls are transferred to the Ambulance Service, a 'flag' is placed against that caller if they have a history of inappropriate use, but there does not appear to be systematic process or any sanctions applied by the Ambulance Service to mitigate the incidence of these calls. The Ambulance Service was unable to provide the Review with data concerning the number and frequency of inappropriate triple-0 callers, nor the number of hoax callers. Hence, the scale of the problem is unknown.

By contrast, the LAS reported that approximately 200 "regular callers" (often with mental health problems) generate about 10,000 calls a year. LAS are in the process of employing a social worker and will use two dedicated frontline staff to hold case conferences with various agencies to help reduce the number of callers and to apply appropriate social or medical interventions.

Clearly, there is scope for the Ambulance Service to improve its reporting of inappropriate and hoax callers in an environment where the Service's capacity is becoming increasingly challenged.

Recommendation:

That the Ambulance Service regularly report the number of hoax calls and other inappropriate calls. The Service should develop a policy and procedures dealing with the management of such calls, including the triggers for taking regulatory action. Where appropriate, the Ambulance Service should engage appropriate agencies or members of the community to work with those who have been identified as regular abusers of the Service.

⁴³ 'Path Analysis Modelling Indicates Free Transport Increases Ambulance Use for Minor Indications', J Yuk Sang Ting, A. Chang, 2006, *Prehospital Emergency Care* (2006) 10 (4):476-481

⁴⁴ Ibid.

10.5 Organisational alignment with NSW Health

In common with ambulance services around the world, the clinical focus of the Ambulance Service has changed markedly over the past decade. Ambulance Services are increasingly becoming recognised as a key component of the wider health system.

Many ambulance services have been moved from an emergency services portfolio into a health portfolio. A recent audit of the QAS recognised this and recommended that consideration be given to QAS transferring to the health portfolio in the medium to long term. Other than in Tasmania between 1989 and 1993, there are no known examples of an Ambulance Service being moved from a health portfolio to an emergency services portfolio.

An extensive review of ambulance services for the National Health Service in England was completed by Peter Bradley in his capacity as National Ambulance Adviser to the UK Department of Health. Peter Bradley is the current CEO of the LAS. The Review, *Taking healthcare to the patient: Transforming NHS Ambulance Services*⁴⁵ provided 70 recommendations which are in the process of being implemented.

One of the key messages from the LAS Review was that there are opportunities for the Ambulance Service to provide healthcare in a patient's home and not merely to transport a patient to a hospital emergency room for treatment. There are some key differences when comparing the UK operating environment to that in Australia and NSW. A key difference is the population density of urban areas in cities such as Sydney which is less than half that of London, and the relatively longer distances between urban centres in regional areas in NSW.⁴⁶

The Review received information from staff both during consultation sessions and by email expressing their preference for the Service to become a separate entity, as it was in the past. Many staff felt that the Service was a "poor cousin" of the Department of Health.

It was reported that lack of budgetary autonomy affected staff morale and many felt that the profile of the Ambulance Service had suffered by being subsumed into the Department. Staff frequently compared themselves to staff in other emergency services such as Police and the fire services. This point is significant because the changing nature of ambulance work in developed countries has led to recognition that an ambulance service can play a key role in improving demand management for emergency hospital beds. If control of the Ambulance Service is shifted away from the Department of Health there is much less scope to exert influence to divert non-acute patients away from the emergency room and to improve bed management in hospitals where the provision of services is likely to be more expensive and in many cases to the detriment of the patient.

The Review does not share the view that the Ambulance Service should switch to an emergency service portfolio, nor that it should become a separate entity. On the contrary, the clinical focus of ambulance work and the interface with the hospital and wider health system mean that the Ambulance Service is appropriately situated within the Department of Health.

⁴⁵ Taking Healthcare to the Patient - Transforming NHS Ambulance Services. (UK) Department of Health. June 2005.

⁴⁶ I Pickering (2006) *The National Ambulance Review - 'Taking Healthcare to the Patient: Transforming NHS Ambulance Services' - An Australian Perspective* Journal of Emergency Primary Health Care Volume 4: Issue 1

The Review considered that there is much more scope for closer collaboration with the Department of Health. There is a need to strengthen integrated planning and demand management initiatives within the Ambulance Service, the hospitals, and the AHSs in the interests of the wider health system.

10.6 Registration and certification of ambulance paramedics

Registration of ambulance paramedics has been an ongoing issue within the ambulance industry in Australia for several years. The rapid pace of change in clinical practices and the increasing shift towards a graduate entry model in some jurisdictions means that pressure is mounting to recognise ambulance paramedics as professionals.

Presently, in Australia and in many other jurisdictions, the employer is the certifying authority for the standard and quality of professional services provided by paramedics. In other national jurisdictions (such as the United Kingdom), a system of national paramedic registration exists where a Health Professions Council monitors the registered status of a number of allied health professionals.

In 2002, the CEO of the Ambulance Service stated that the registration of paramedics is to be pursued at a national level through the CAA. It would be inappropriate for NSW to act unilaterally on registration and without the cooperation of other jurisdictions.

Following a 2006 report by the PC⁴⁷, COAG agreed to proceed with a national professional registration scheme for health practitioners. ACAP, a peak body for the ambulance industry, endorsed ambulance paramedics as a candidate for future registration.

The benefits of national registration are thought to include:

- A measure of quality assurance for the standard of care provided by ambulance paramedics;
- Increased community perception of ambulance paramedics as a profession;
- A stronger emphasis on evidence based practice by improving the quality and quantity of professional development and continuing education; and
- Inter-jurisdictional recognition of professional standards to aid portability of qualifications.

Recertification by the employer is largely intended to be the quality assurance measure for a paramedic. Therefore, the clinical and operational benefits from a system of national registration do not appear to be compelling, at least in the short term.

Under the current award, Ambulance Service paramedics are required to be recertified every two years. This requirement is to be extended to three years. The lack of relief capacity in many rosters (especially in Sydney) has meant that some paramedics are not recertified within the necessary timeframe. It should be noted that there are different types of recertification for a variety of job functions. These include clinical, SCAT (Special Casualty Access Teams), and rescue recertification. To service all these recertification requirements, there needs to be adequate relief built into rosters.

The rigour of the existing process for the clinical recertification of NSW ambulance paramedics was questioned by some Ambulance Service staff during consultations.

⁴⁷ Productivity Commission 2005, *Australia's Health Workforce*, Research Report, Canberra.

Some staff reported that they were unclear as to when and whether they needed to be recertified. There appeared to be inconsistent practices concerning recertification and training. Some staff reported that station managers released staff on paid time to undertake study or attend courses, whilst others attended external seminars at their own cost and without any compensation.

Aside from the challenge of gaining mutual agreement from all Australian jurisdictions to the proposed standards for a national registration system, there are also significant challenges to full national registration. These include:

- time to establish a registration board (or similar);
- the cost of establishing the professional registration body;
- ongoing costs of compliance;
- insurance and indemnity arrangements;
- the type of sanctions available for breach of professional standards; and
- a requirement for mandatory training and professional development etc.

Some significant industrial challenges would have to be met for the Ambulance Service to gain agreement on this range of issues, not only with the HSU but also between jurisdictions. Registration may effectively shift some of the liability for professional errors from the employer to the employee, raising the prospect of the employer applying pressure and sanctions on the employee to accord with the employer's own requirements, in addition to those applied by the registering body.

At the time of reporting, there has been some limited progress on the registration of paramedics. To increase the momentum towards registration, ACAP has recently instituted a voluntary program known as "Certified Ambulance Professional" which is targeted at paramedics who operate outside the traditional large-scale ambulance services.

The operational benefits of registration do not appear to outweigh the costs in the short to medium term. It is likely that more momentum for registration of ambulance paramedics will ensue as the industry in Australia continues its transition from one that transports patients to hospitals to one where paramedics are recognised for the quality of healthcare provided to patients.

In NSW, it is unlikely that the professional status of ambulance paramedics will be recognised until:

- the community is educated to become more aware of the functions of the Ambulance Service and the training and skills needed to undertake the work of a paramedic;
- there is a higher degree of professional decision making in the treatment of patients; and
- there is sufficient confidence from the community and the Ambulance Service management in the clinical skills of all paramedics in NSW so that there can be a relaxation of the current restrictive protocols that ultimately force paramedics to transport patients to hospital regardless of their professional opinion.

10.7 Career paths and options

Many staff and the HSU have expressed the opinion that, as the CEO of the Ambulance Service is not required to be a paramedic, the career path of paramedics is limited.

There seems to be some misunderstanding of the principle of merit (which has been at the core of recruitment and selection in the NSW public sector since 1988) and of a range of equity initiatives. Close consideration is required to be given to the specific capabilities needed to undertake positions, and qualifications should be required for a position only where those qualifications are essential to enable the role to be undertaken effectively.

Limited performance management in the Ambulance Service, coupled with nascent workforce planning processes, make structured discussions around career paths and career planning difficult.

There is clearly a range of positions within the Ambulance Service for which paramedic qualifications or on-road experience is essential to undertake the role. Equally, there are other positions for which a paramedic may be able to develop the necessary skills and abilities, but for which there is also a wider pool of competing qualified applicants.

Paramedic qualifications do not, of themselves, fit a person to be the CEO of a significant public sector organisation with a budget of over \$450 million annually. Executive management experience, leadership skills across a diverse range of stakeholders, the ability to influence planning (health, workforce and financial) at a State level are essential for the role of CEO. Whilst the Review does not support restricting the position of CEO of the Ambulance Service to a uniformed paramedic, it strongly supports succession planning and management development initiatives which would allow staff to progress from a paramedic role to that of CEO.

The Service has also participated in NSW Health management/executive development initiatives in the past. However, this option has not been readily available in recent years whilst NSW Health has been reviewing its program.

Since 2004, five Ambulance Service executives have completed centrally funded executive development initiatives. In 2008, one commenced the Australia and New Zealand School of Government Executive Masters of Public Administration course and two commenced the University of Sydney Graduate Diploma of Public Administration course. Opportunities for staff to undertake these programs, funded through the DPC, should continue to be sought.

The 2004 Public Accounts Committee Inquiry recommended that, *“The Service organise opportunities for external management secondments”*. This recommendation is strongly supported by this Review, but should be extended to include a transparent system of internal “secondments” to broaden organisational knowledge.

As discussed earlier, the Operations Division of the Ambulance Service has a very flat structure which, for most staff, limits the opportunity for vertical career paths (i.e. movement upward through management positions). There is limited financial incentive for staff to gain management capabilities and to take up management roles, and many staff have indicated that attaining more advanced clinical knowledge or skills and remaining on-road is their preferred career option.

The Ambulance Service has indicated that it is developing a Workforce Plan and has a strategy for implementing a new structure for station managers, including structured development (initially through a Certificate IV in Frontline Management) and performance management. The proposal to review the station manager structure is being advanced as part of the current MIC. Implementation of a program of performance feedback and development for all staff which incorporates career planning needs to follow these management improvement initiatives.

Effective performance feedback and development processes will also support the implementation of succession planning for both senior operational management positions and specialist positions elsewhere in the organisation.

Clinical skills requirements for ambulance officers have increased significantly since the turn of the century, with the Ambulance Service investing significantly in training staff for these requirements. The Review acknowledges the Ambulance Service multi-factor approach to identifying locations where the clinical profile of staff should be varied. Whilst the view expressed by staff that all should have an opportunity to progress to the highest level of clinical skills if they wish to do so is unrealistic from a service planning perspective, their desire to improve skills is acknowledged. As a minimum, the processes for supporting upgrade to the new P2 classification should be applied transparently, and progress should be regularly communicated. Staff seeking skills upgrades expressed frustration at having to repeat all elements of the selection process on an annual basis.

As outlined elsewhere in this Report, whilst paramedic turnover is relatively low, 9.5% of the Ambulance Service workforce is over 55 years of age. Recognising that older staff may have changing work preferences, the Ambulance Service is currently carrying out an online retirement intentions survey. A key finding of surveys carried out in the NSW public sector to date has been that, whilst staff approaching retirement are seeking greater flexibility, such flexibility is limited by the attitudes of local management. Staff consultations suggest that this is likely to be a significant issue for the Ambulance Service.

The Ambulance Service has proposed that the survey be conducted annually. The Review strongly supports the survey, but considers that, as an annual survey is unlikely to show significant variation in responses, the re-survey be biennial or even triennial. Resources would be better allocated on implementing relevant initiatives to support older staff than on an annual cycle of survey and analysis.

Recommendation:

That, by the end of June 2009, the Ambulance Service finalise an initial workforce plan, with development and succession planning linked to performance management for all staff.

10.8 Research program

The Ambulance Service secured funding from NSW Health to establish a research centre to examine evidence based practices in pre-hospital and emergency medicine. Bodies such as the CAA, the 999 EMS Research Forum, and medical professionals consulted by the Review Team stated that in general terms there is a need for more

research in emergency medicine and pre-hospital care. This view appears to be universally accepted by academia.⁴⁸

At the time of reporting, the specific objectives, research agenda and governance structures were still being considered. In the meantime, the Ambulance Service has provided the following statement about the proposed Research Centre:

“The Centre is planned to have a broad focus on all pre-hospital elements of the patient journey, meaning that clinical research will not only be performed in areas such as trauma, stroke, cardiac arrest, paediatrics and critical care, but also in areas such as care of the elderly, falls prevention, non-emergency department destination use, preventative medical strategies and patient education. The Centre is also intended to have an active research program into non-clinical aspects of out-of-hospital care such as call taking and patient triage, operational function and responses, and major incident management.

The Centre will use sophisticated statistical modelling to analyse currently under explored areas of out-of-hospital care. The Centre is planned to be collaborative in nature, working with stakeholders not only from the health professional and University sectors, but also exploring the possibility of collaboration with colleagues from organisational backgrounds such as first-aid organisations, emergency management agencies and other government agencies.

Another core area of research within the Centre will be in exploration of ‘translational research’, or ‘research into practice’. The aim of this is to explore how best clinical and non-clinical research findings may be converted into practice in the most effective way, within a large organisation such as Ambulance Service. Within this core area will also be educational research, investigating how to enable the most effective learning in a geographically diverse and extended environment.

The defined core areas of Centre research, working with diverse collaborators, will allow not only the best clinical practices to be investigated and implemented, but will also facilitate investigation of Ambulance / hospital interactions and Ambulance operational aspects, to maximise whole system efficiencies and patient outcomes.

The first steps involve providing a small amount of seed funding within a proposal to establish a small research centre and scholarship program for paramedics. This will initially be targeted over later in 2008 with the aim of building a more substantial and enduring research capability over the next two to three years.”⁴⁹

The Review Team supports the establishment of a research capability within the Service. It is important that any such research capability retain an operational focus and, where appropriate, that its agenda complements existing research such as that done by the Australian Centre for Pre-Hospital Research (ACPHR). The ACPHR is based within the QAS in collaboration with the University of Queensland.

As one of the busiest ambulance services in the world, the Ambulance Service will soon be collecting nearly one million patient health care records annually. Understanding which medical interventions work best will ultimately affect the design

⁴⁸ ‘Towards a national research agenda for the ambulance and pre-hospital sector in Australia’ Tippet V., Woods S., Fitzgerald G., Clark, M. Volume 1 : Issue 1-2 *Journal of Emergency Primary Health Care* Vol 1, (1-2), 2003 Tippet V., Woods S., Fitzgerald G., Clark, M.

⁴⁹ Text provided by Dr Paul Middleton, Senior Medical Advisor, Ambulance Service [minor edits included]

and delivery of training, the type and volume of equipment and drugs supplied, and may either reduce or increase operating costs. For example, there is emerging evidence to suggest that the risks of complex procedures such as endotracheal intubation in a pre-hospital environment are too great given the poor survival rates.⁵⁰ Information provided by the Ambulance Service reinforces the need to shift more of its training focus to patients who present with chronic, primary care needs, especially the aged care population.

⁵⁰ Prehospital advanced trauma life support: how should we manage the airway, and who should do it? A. Brambrink, I Koerner, *Critical Care*, 2004; 8(1): 3–5.

11. SPECIFIC ISSUES

11.1 Complaints handling and grievance procedures

The issue of complaints and grievance handling emerged as a strong issue during the current Review. As a result, there has been a particular focus, and separate consultations, on these issues.

The Ambulance Service has a set of published policies or guidelines covering grievance handling and resolution, the disciplinary process, and bullying and harassment in the workplace.

Grievance handling

The Ambulance Service *Grievance Resolution Procedures*, issued in 1999, governs the management of grievances. The aim of the policy is to resolve grievances at the lowest level possible with referral to higher levels of management, or even externally, only where this is unsuccessful.

Separately, the Department of Health issued a policy directive in May 2005 to all units of the Department, including the Ambulance Service, entitled *Grievance Resolution (Workplace)*, requiring bodies to have a local workplace grievance-management system.

The Ambulance Service's 1999 *Procedures* remains the local document but requires updating for consistency with the Department of Health policy. For instance, the Ambulance document has no set times for processes although it acknowledges that timeframes should be agreed between the supervisor and the aggrieved officer.

Disciplinary process

Disciplinary policies are enunciated under the Ambulance Service *Code of Conduct* (May 2007), the *Ambulance Service Regulation 2005 (Part 3: Management of Conduct and Performance)*, and the *Operational Ambulance Officers (State) Award (Clause 41: Issues Resolution)*.

The Regulation is the principal document which defines both the disciplinary action (penalty options) from dismissal to caution or reprimand, and the remedial action from counselling to a transfer. The Regulation separates conduct and performance matters and allows the CEO to take remedial action at any time as an alternative to disciplinary action.

The Regulation does not identify timeframes but is otherwise almost identical to the relevant Part of the *Public Sector Employment and Management Act 2002* outlining the management of conduct and performance for officers in the Public Service.

Bullying and Harassment

The Ambulance Service has a *Harassment Free Workplace Policy* dating from July 1999 and a Joint Management and Employee Association Policy Statement – *Bullying, Harassment and Discrimination* (September 2001).

Further, the Department of Health published a new policy document entitled *Bullying - Prevention and Management of Workplace Bullying: Guidelines* in June 2007. The 1999 and 2001 Ambulance documents need to be reviewed in the light of the central NSW Health policy. A revised policy should be customised following that review.

The Ambulance Service, in recognising management of bullying and harassment as a significant issue of concern for staff and management, initiated a Bullying and Harassment Taskforce in the second half of 2007, chaired by the General Manager, Operations. It noted that, whilst new staff were targeted for bullying and harassment awareness training, there was practically no ongoing training of staff in general.

The Taskforce's recommendations, currently being considered by the CEO, focus on staff consultation to identify key issues for action along with implementation of conflict management training, which has already been piloted in one sector.

Professional Standards and Conduct Unit

The PSCU is the functional area within the Ambulance Service that currently manages serious allegations of misconduct against staff. It reports directly to the Chief Executive. The PSCU had 179 cases referred to it in 2006/7. A breakdown of these cases is at Table 12:

Table 12: Cases of Misconduct Referred to the PSCU

Case type	% of total (n=179)
Misconduct	21
Grievances	13
Consumer complaints	16
Coronial	15
Health Care Complaints Commission	11
Other	24

In November 2007, a review was undertaken of the PSCU, and the Ambulance Service is proceeding to implement its recommendations.

In summary, the report found that:

- cases took too long to resolve, with delays in serious misconduct cases;
- local managers delegated complaint resolution to the PSCU too readily;
- managers often lacked the necessary skills and training to manage grievances and complaints locally;
- complaints handling conducted outside the PSCU was inconsistent; and
- too few resources were available to the PSCU given that it was also servicing complaints made by members of the public (recommending that this task be shifted to the Public Affairs Unit of the Ambulance Service).

Later advice from the PSCU is that 21 cases involving serious misconduct were commenced in the 2006/07 financial year. Thirteen cases were finalised with the average time taken to complete each case being 24 weeks (with case-times ranging from 78 weeks to five weeks). Reasons for delay include the non-participation of staff, the impact of industrial action or criminal investigations, and as resourcing. Delays in less serious cases were often due to insufficient staff resources.

Discussions with staff of the PSCU reinforced concerns about resourcing for effective management of the caseload and a desire for improved management capability in resolving complaints and grievances. Staff also expressed concerns over involvement by HSU sub-branch delegates in grievance and disciplinary processes.

Review Workshops

At the staff workshops and at a separate workshop with HSU delegates, officers expressed their strong dissatisfaction with the current systems and processes used by the Ambulance Service to resolve complaints and grievances.

The findings from these consultations are that:

- disciplinary and grievance processes are not clear;
- there is an inconsistency of approach in investigations, with some elements (single person interviews) not considered best practice;
- the resolution of disciplinary proceedings often takes too long, with affected staff provided with insufficient information on the progress of cases;
- there is a question of the resourcing and skills of the PSCU;
- there is a lack of management skill/resources to handle grievances at local level; and
- there are inconsistent approaches to allegations of bullying and harassment.

Recommendation:

That the Ambulance Service review all policies and procedures on complaints handling, grievance handling, and bullying and harassment for consistency with updated NSW Health policies. Revised processes should, at a minimum, contain the following elements:

- A clearly articulated process wherein complaints about staff (whether from other staff or members of the public or allied health professionals) are properly assessed and handled, according to clearly defined procedures, by the right people. The role of the PSCU in handling only those matters where serious misconduct has been alleged should be spelled out clearly;
- An up to date Code of Conduct, defining and prohibiting bullying and harassment by Ambulance Service staff;
- A clear policy on the Ambulance Service position on the prevention and management of bullying and harassment;

- Amended position descriptions requiring all Ambulance Service staff to comply with the Code of Conduct and related policies;
- Mandatory training for all supervisory/management positions on the policy and related procedures; and
- Information sessions for all staff in the service about the Code, related policies and procedures and their rights and responsibilities.

11.2 Rescue function

The Ambulance Service currently employs approximately 140 FTEs (around 180 actual officers) in rescue activities (around \$12.5 million per annum). Assets related to these functions are valued at approximately \$1.5 million.

In addition to rescue functions, these officers are also involved in regular ambulance activities. The Ambulance Service remains the only ambulance service in Australia to maintain a rescue function.

The Ambulance Service operates 14 rescue units, with five dedicated (full time) urban rescue units and nine which operate as ancillary units for existing ambulance crews in rural locations. The type of rescue activity involved includes road crashes and vertical, confined space, trench, industrial, technical and domestic rescues. These activities are also undertaken by the NSWFB.

The State Rescue Board coordinates rescue services across the state. This involves the Ambulance Service, NSW Police, NSWFB, the SES, the Volunteer Rescue Association and the Volunteer Maritime Rescue Association. While the Board coordinates services, it does not consider operational and financial efficiency issues flowing from multiple providers of the same service.

On average, Ambulance rescue officers are utilised about half as often as non-rescue ambulance officers (155 turnouts per year per FTE compared to 325 responses per FTE for regular ambulance officers⁵¹).

In 2005/06, rescue turnouts accounted for 11% of the rescue officers' workload. This equated to 2,141 turnouts. The total number of Ambulance Service responses⁵² in 2005/06 was around 999,000.⁵³ By way of comparison, in 2006/07 the NSWFB responded to 11,555 rescue matters compared to its total activity for the year of 138,021 matters.

For 2005/06, the Ambulance Service has advised that the marginal cost of rescue services was \$881,000. This assessment of costs potentially understates the true cost, as it does not consider the opportunity costs associated with the rescue function.

If current ambulance rescue officers were used exclusively for core ambulance work, there would potentially be significant efficiencies generated compared to their current utilisation (up to 80 FTEs).

There is also an opportunity cost related to maintenance expenditure on equipment for rescue. In 2006/07, approximately \$1.3 million was spent on rescue

⁵¹ Source: Ambulance Service data.

⁵² Equating a turnout with a response.

⁵³ *Report on Government Services 2007*.

maintenance compared to \$2.9 million for building maintenance. Using the activity levels provided above, this equates to maintenance spending of \$607 per rescue response compared to \$3 for building maintenance per regular ambulance response.

Any rationalisation may involve additional costs relating to the officers who transfer from the Ambulance Service, leaving positions that need to be backfilled. This needs to be considered against the potential efficiencies mentioned above. It is not expected that this cost will be significant.

Of the 140 FTEs, about 55 are located in the Sydney metropolitan region. Any proposal to rationalise Ambulance Service rescue functions would primarily affect these officers. In regional areas, the ability/availability of officer transfers will be limited.

The NSWFB has indicated to the Review that it believes it can accommodate any transfer of the Ambulance Service rescue function from within its existing resource levels (both recurrent and capital).

In its submission to the Review, the Ambulance Service stated that, given the increased presence of other emergency services agencies, there may be operational efficiencies gained from it ceasing to provide this service.

One of the key issues that needs to be considered is the difference between the Ambulance Service rescue function and the service provided by other agencies. In this regard, it appears that the main difference is that ambulance rescue officers bring the skills of a paramedic to a rescue incident. This argument is deficient for two reasons.

First, where paramedics are required at a rescue incident they can be called. Multiple responses to an incident by more than one agency are not unusual.

Second, given the relatively low activity levels experienced by ambulance rescue officers compared to other rescue providers, it appears that this is already happening.

There are three options to consider in relation to the ambulance rescue function:

1. maintain the status quo;
2. a partial cessation of the function based on a rural/metropolitan split, where the NSWFB takes on the function in the metropolitan area and rural and regional areas continue in accordance with current arrangements; and
3. a complete cessation of Ambulance Service rescue activity, with the function being taken over by the NSWFB and other providers as required.

Table 13 summarises the advantages and disadvantages of these options. Based on this analysis, option 3 seems to be the only viable option.

Table 13: Options in relation to the Ambulance rescue function

Option	Advantages	Disadvantages
1	<ul style="list-style-type: none"> No disruption to Ambulance Service arrangements 	<ul style="list-style-type: none"> Significant opportunity cost forgone by the Ambulance Service
2	<ul style="list-style-type: none"> Frees up capacity for core business Minimal cost (capacity to absorb the function by others) Some improved operational efficiency for rescue across the state 	<ul style="list-style-type: none"> Loss of staff who want to focus on rescue
3	<ul style="list-style-type: none"> Frees up significant capacity for core business Minimal cost (capacity to absorb the function by others) Improved operational efficiency for rescue across the state 	<ul style="list-style-type: none"> Loss of staff who want to focus on rescue

While there are likely to be minimal actual Budget savings, the Review believes that the Ambulance Service rescue function should be rationalised, as it does not represent core ambulance activity.

Further negotiations should be undertaken with the State Rescue Board and its partner agencies (particularly NSWFB), and with the HSU on a strategy to withdraw the Ambulance Service from the rescue function.

Recommendation:

That the Ambulance Service rescue function be transferred to NSWFB. The Ambulance Service, in consultation with NSWFB and the HSU, should develop a transition plan (by 1 December 2008) to facilitate the transfer.

11.3 Service planning

Analysis of business performance

The Ambulance Service currently collects considerable data from its operations, with over 1 million requests for service in 2006/07 and over 880,000 responses. The Review found that there is very limited dissemination or in-depth analysis of performance data which is accessible to the public, staff and other stakeholders.

For an organisation of its budget and size, there should be a well-developed in-house capacity to:

- analyse operational and financial data;

- develop robust economic business cases for long term planning needs (ensuring that the costs, risks and benefits are quantified);
- estimate the resource and operational impacts of new policies;
- implement major projects effectively; and
- evaluate the outcomes of major projects, and any inter-related or unexpected outcomes.

The Review observed that the Ambulance Service possesses differing levels of skill across these areas. The quality of communication and cooperation between functional areas needs to be strengthened so that business intelligence and the Ambulance Service's capacity for long term strategic planning is improved.

Several skills need development, or consolidation. These skills include:

- resource allocation modelling;
- corporate/business planning and reporting;
- clinical profiling of local populations;
- matching paramedic skills to local needs;
- total asset management (especially long term capital planning);
- shared service and corporate support functions;
- project management; and
- policy development.

Several staff and stakeholders consulted by the Review expressed a desire that long-term service planning and the analytical capacity of the Ambulance Service be strengthened. There were also concerns expressed about its ability to manage major projects from 'cradle to grave' and to ensure that the expected outcomes determined in the planning phase were delivered.

The development of the Ambulance Service's analytical capability should not be understated. It is critical that it be adept at long term planning to ensure that it can operate efficiently in the future without simply adding more ambulance crews as the prime solution. Proof of concept programs such as CARE and ECP are to be encouraged as demand management initiatives for the wider health system. Should these programs be efficiently implemented and positively evaluated, it is imperative that the Ambulance Service have a robust resource allocation model that can determine the optimal mix of resources between functions such as PTS, Rapid Responders, A&E (general duties) ambulances and ECP resources.

There is currently an over-reliance on external consultants for modelling and predictive capability in service planning. These consultants are not always able to modify their pure mathematical analysis to account for local constraints to achieve service optimisation. In many cases, the intellectual property and analytical skills for service planning tools such as the patient allocation matrix are retained by external, often international consultants.

The Ambulance Service urgently needs to attract highly skilled analytical staff to who are skilled in operational research and who can undertake long term planning using best practice modelling and underlying economic principles of cost effectiveness. The Review found that such skills were not available from NSW Health.

The Review found that there appears to be a strong case for a centralised policy, planning and analysis function within the Ambulance Service. The responsibility for policy development is currently scattered around the organisation depending on the functional area involved. The result is that there are ‘silos’ of specialised areas throughout the organisation and scope for better, more fruitful relations between senior managers.

Recommendation:

Ambulance Service reduce its reliance on external consultants by strengthening its internal capacity to undertake business analysis to optimise operations, strengthen service planning, and estimate the operational impacts of new clinical practices and major projects.

11.4 Change management practices

The Ambulance Service has struggled to implement a range of cultural, operational and staff related improvements over a number of years. This was a consistent theme or complaint in the staff discussions and in the submission from the HSU.

The Review considers that the Ambulance Service needs to enhance its change management capacity and devote senior management attention to implementing change within acceptable timeframes.

The key change management issues include:

- poor communication with staff;
- limited outcomes and improvement from successive corporate staff surveys;
- lack of a performance culture throughout the organisation, especially one praising good practice;
- support for staff by upskilled managers who are focused on improving patient care and achieving corporate objectives and performance goals;
- shifting from a somewhat military-style emergency management mode to a professional, health practitioner role; and
- a need to involve local communities and other stakeholders in service planning.

The recommendations of the Review, especially in the areas of organisational change, performance management, and service delivery and planning will require commitment from the Ambulance Service executive and strong communication skills.

Implementation of Review recommendations is to be subject to regular reporting to the Government, and a change management strategy should be developed in line with this.

12. SUBMISSIONS

12.1 List of submissions received

A wide range of individuals, including past and present staff, contacted the Review. Formal written submissions were received from:

1. The Ambulance Service of NSW;
2. The Health Services Union;
3. The United Services Union;
4. National Patient Transport Pty Ltd.

12.2 Ambulance Service of NSW

The Ambulance Service submission described the structure and operations of the Ambulance Service. It highlighted:

- demand pressures;
- staffing levels and issues;
- comparative financial efficiency;
- capital utilisation and requirements;
- management structure and improvement initiatives; and
- strategies for demand management and for improving the efficiency of the Ambulance Service.

The submission indicated that the Ambulance Service aims to:

- continue with the implementation of a range of services designed to reduce pressure on hospital EDs by ensuring that paramedics obtain the skills to manage and re-direct non-acute patients within the health system;
- continue to adhere to the Government's priorities and to implement service enhancements, particularly improvements to fixed and rotary wing services, enhanced training, and increased staffing numbers;
- where feasible, separate emergency and non-emergency operations to enable the Service to increase emergency capacity and improve the quality and efficiency of service;
- continue to develop strategies to improve the speed and accuracy of triple-0 call-handling;
- introduce new deployment strategies to improve response times to life threatening emergencies;
- develop management capability across the organisation;
- reform the work environment to allow flexible rostering practices and to remove incentives for inefficient work practices;
- make strategic investments in infrastructure, particularly in Sydney where the existing station network limits current and future response performance;

- optimise the Ambulance Service’s capacity to participate in NSW Health’s Shared Services Program; and
- continue to explore the feasibility of making greater use of university providers of paramedic education.

12.3 Health Services Union

The HSU represents uniformed staff in the Ambulance Service (including uniformed management staff), as well as a number of non-uniformed positions. Its submission indicates “membership density” within the Ambulance Service of over 95%.

The HSU’s submission is set in a context of its members’ reported dissatisfaction with management of the Ambulance Service. HSU argues the need for the Ambulance Service to acquire and utilise effectively a rigorous service planning capacity. It seeks more efficient utilisation of current resources, and offers support for resource improvements. It questions Ambulance Service management capacity, and raises concern regarding consistency of management decisions across a number of areas which directly affect the efficiency and morale of staff. The HSU submission made the following recommendations:

- that the Review recommend the establishment of an effective senior management structure for the Ambulance Service incorporating an operational/uniformed Commissioner in lieu of the existing CEO position;
- that the new Commissioner report direct to the Minister for Health;
- that the Review recommend the maintenance and enhancement of a clinical focus on “doing what is best for the patient” as an integral core requirement of and performance measure for the Ambulance Service;
- that the Review recommend the establishment of an appropriate performance management framework, together with indicators against which the activities of the Commissioner and senior personnel can be monitored and measured;
- that the Review recommend the establishment of (or the commencement of consultations on) the services that the community can by right to expect, together with performance targets for their delivery and an appropriate mechanism for funding such services;
- that the Ambulance Service establish a properly resourced planning department capable of analysing, identifying and planning for the future resources required to meet the needs of the community;
- that the Review recommend that the Ambulance Service acquire a modelling tool that can quickly and accurately analyse current operational data, that can model “what if” scenarios, and that allows for analysis to be completed by Ambulance Service staff;
- that the new planning department and its outputs be accessible by Divisional management so that local demand pressures can be analysed;
- that the Review recommend the establishment, as a matter of urgency, of an interim increase of staffing and associated resources required for the implementation of the above recommendations;

- that the Review recommend the establishment of a new best practice approach to the management and investigation of complaints/grievances within the Ambulance Service, and that the new approach be adequately resourced;
- that the Review recommend the establishment of a comprehensive implementation plan to ensure that workplaces are free from bullying and harassment;
- that the Review recommends the commencement of consultations on the establishment of a comprehensive patient transport system within the Ambulance Service to undertake adequately and cost effectively the transport of patients requiring significant clinical management; and
- that the Review identify the reasons for the failure to recognise and deal with the growing demand on services, and the other factors affecting response performance, patient care, and the Service's staff.

12.4 United Services Union

The USU provides industrial coverage for communications assistants and clerks in the Ambulance Service. Issues raised in the USU submission included:

- concern about Review's Terms of Reference focusing on ambulance officers, rather than on all staff of the Ambulance Service;
- staffing levels, especially the current dispute in the IRC relating to Sydney and Northern Division Operations centres. The Union indicated that staffing has not increased in line with increases in call volumes;
- recognition of the skills of communications assistants;
- salary progression and career paths. The USU argued that that salaries are significantly below those of similar NSW public sector call-takers;
- lack of sufficient support, including the non-replacement of communications assistants on breaks (while dispatchers, who are paramedics, are replaced), and ineffective peer support for communications assistants; and
- non-adherence to policies and procedures, particularly the failure of management in some locations to follow procedures relating to grievances and disputes, and the investigation of complaints.

12.5 National Patient Transport Pty Ltd

NPT is a contracted provider of NEPT services in Victoria and Western Australia. Based on its experience in this sector, NPT's submission provided information and made recommendations on the achievement of efficiencies in the provision of NEPT.

Its recommendations included:

- that a further separation of emergency and non-emergency operations occur within the Ambulance Service;

- that there be an investigation into the skill stratification of NEPT services to improve the capability of the PTS to transport patients other than those for which no active monitoring or intervention is required;
- that the skill level of staff within the PTS be increased, and that a range of alternative transport options be provided for patients other than those requiring little or no clinical intervention in order to provide an appropriate level of clinical service;
- that the dedicated Ambulance PTS hours of operation be extended to promote timely access to the appropriate level of service, and that reliance on emergency ambulances for these transports be reduced after 6 pm;
- that, in order to relieve the tension created by competitive access for in-patient beds by elective and emergency admissions, opportunities be explored to allow limited market entry for non-government patient transport providers who have demonstrated a capacity to transport patients of varying degrees of acuity;
- that, to achieve the outcomes anticipated from the Review, an examination of relevant legislation be undertaken to ensure that access to the market is available to providers equipped, experienced and able to support the transport of non-emergency patients.

NPT argued that economic benefit and improved after-hours access was likely to be derived from the introduction of competition in the NEPT sector. These benefits are likely to be both tangible and intangible.

ATTACHMENT 1: LIST OF STAKEHOLDER CONSULTATIONS

Ambulance Service of NSW Advisory Council
Australian College of Ambulance Professionals
Central Sydney Division of General Practice
Charles Sturt University (School of Biomedical Science)
Health Services Union
London Ambulance Service
Metropolitan Ambulance Service (Melbourne)
NSW Fire Brigades
NSW Health (including representatives from the NSW Health Executive and from selected AHSs)
NSW Nurses Association
NSW Office for Emergency Services
NSW Police
NSW Rural Fire Service
NSW State Emergency Service
Rural Ambulance Victoria
Queensland Ambulance Service

ATTACHMENT 2: SELECT BIBLIOGRAPHY

- Ambulance Service of NSW (June 2007) *Corporate Culture Survey Results*
- Audit Office of New South Wales (2001) *Ambulance Service of New South Wales: readiness to respond*
- Audit Office of New South Wales (2003) *Code Red: Hospital Emergency Departments - NSW Department of Health and Ambulance Service of NSW*
- Audit Office of New South Wales (2005) *Coordination of Rescue Services - State Rescue Board of NSW*
- Audit Office of New South Wales (2004) *NSW Department of Health and Ambulance Service of NSW: Transporting and Treating Emergency Patients*
- Audit Office of New South Wales (2007) *Readiness to respond: Ambulance Service of New South Wales: follow-up of 2001 performance audit*
- Australian Institute for Primary Care (2007) *Factors in ambulance demand: Options for funding and forecasting*. Report commissioned by the Council of Ambulance Authorities
- A. Brambrink, I. Koerner *Pre-hospital advanced trauma life support: how should we manage the airway, and who should do it?* *Critical Care*, 2004; 8(1): 3–5.
- J. Clawson, C. Olola, et alia *Accuracy of emergency medical dispatchers' subjective ability to identify when higher dispatch levels are warranted over a Medical Priority Dispatch System automated protocol's recommended coding based on paramedic outcome data*, *Emergency Medicine Journal* 2007;24:560-563
- Department of Premier and Cabinet of NSW, Performance Review (2008), *Internal Audit Capacity in the NSW Public Sector: Final Report*
- Department of Premier and Cabinet of NSW, Public Sector Workforce Office (2007), *Overview Report for the NSW Public Sector Workforce Profile*
- Independent Pricing and Regulatory Tribunal (2005) *Review of the Financial Aspects of the Ambulance Service of NSW; Report to the Minister for Health on Revenue and Charging Structures*
- Metropolitan Ambulance Service (Melbourne) *Annual Report* (various years)
- Metropolitan Ambulance Service and Rural Ambulance Victoria: *Clinical Practice Guideline CPG:PR002 Version 4*
- NSW Health & Paxton Partners (June 2007) *Analysis of Emergency Data Discussion Paper*
- NSW Health (May 2007) *A New Direction for NSW Department of Health - Strategic Plan Towards 2010*
- NSW Health *Annual Report* (various years)
- NSW Health (February 2007) *State Health Plan Towards 2010*. ISBN: 1741870143
- NSW Public Accounts Committee (June 2004) *Inquiry Into the NSW Ambulance Service: Readiness to Respond*,

ORH Limited (February 2008) *Ambulance Service of New South Wales: Emergency Ambulance Cover: Supporting the Ambulance Review - Potential Initiatives for Improved Performance*

Operational Research in Health Limited (ORH) (2002) *Review of Operations – Sydney*

Operational Research in Health Limited (ORH) (2002) *Review of Operations – Regional*

Operational Research in Health Limited (ORH) (2002) *Review of Operations – Operations Centres*

Operational Research in Health Limited (ORH) (2004) *Rotary Wing Review*

I Pickering (2006) *The National Ambulance Review - 'Taking Healthcare to the Patient: Transforming NHS Ambulance Services' - An Australian Perspective* Journal of Emergency Primary Health Care Volume 4: Issue 1

Productivity Commission (2005) *Australia's Health Workforce*, Research Report, Canberra

Queensland Ambulance Service *Annual Report* (various years)

Queensland Government (2007) *Queensland Ambulance Service Audit Report*

Standards Australia (2004), *ASNZS4360:2004 – Risk Management*

SCRGSP (Steering Committee for the Review of Government Service Provision), *Report on Government Services*, Productivity Commission, Canberra (various years)

H. Snooks, H. Wrigley, S. George, E. Thomas, H. Smith, A. Glasper *Appropriateness of use of emergency ambulances*. Journal of Accident and Emergency Medicine 1998; 15: 212-218

St John Ambulance Western Australia (2007) *Annual Report 2006/07*

V. Tippett, S. Woods, G. Fitzgerald, M. Clark *Towards a national research agenda for the ambulance and pre-hospital sector in Australia* Journal of Emergency Primary Health Care Vol 1, (1-2), 2003

J. Turner, H. Snooks et al. (April 2006) *The costs and benefits of managing some low-priority 999 ambulance calls by NHS Direct nurse advisers*, Report for the National Co-ordinating Centre for NHS Service Delivery and Organisation R & D

J Yuk Sang Ting, A. Chang *Path Analysis Modelling Indicates Free Transport Increases Ambulance Use for Minor Indications* Pre-hospital Emergency Care (2006) 10 (4):476-481

ATTACHMENT 3: PREVIOUS REVIEWS OF THE AMBULANCE SERVICE

Background

The Review of the Ambulance Service requires an examination of all external reviews and audits undertaken since 2001. These reviews include:

Follow up Performance Audit – Ambulance Service of NSW, Readiness to Respond (Audit Office)	2007
Coordination of Rescue Services - State Rescue Board of NSW (Audit Office)	2005
Review of the Financial Aspects of the Ambulance Service of NSW; Report to the Minister for Health on Revenue and Charging Structures (IPART)	2005
NSW Department of Health and Ambulance Service of NSW: Transporting and Treating Emergency Patients (Audit Office)	2004
ORH Rotary Wing Review	2004
Code Red: Hospital Emergency Departments - NSW Department of Health and Ambulance Service of NSW (Audit Office)	2003
ORH Review of Operations – Operation Centres	2002
ORH Review of Operations – Regional	2002
ORH Review of Operations – Sydney	2002
Ambulance Service: Readiness to Respond (Audit Office)	2001

These reviews fall into distinct categories:

- Reports by the Auditor-General, focusing primarily on Ambulance Service operations. Two reports: Readiness to Respond (2001) and the 2007 Follow-up Report.
- Reports by the Auditor-General, focusing on the Ambulance-hospital emergency interface. Two reports, in 2003 and in 2004.
- The report by the Auditor-General on the State Rescue Board (2005).
- The report by IPART on funding arrangements for the Service (2005).
- Reports by ORH, commissioned by the Ambulance Service, on the review of Ambulance operations. Three in 2002 (operations), and one in 2004 (rotary wing).

Analysis

1. Auditor-General's Reports on Ambulance Service 2001 and 2007

The 2001 Review was a major audit of the Ambulance Service with a particular focus on the efficiency and effectiveness of practices and systems. The key conclusion was that the Service had considerable work to do to reach its aspirations of being recognised amongst leading examples of best practice services. The computerised dispatch system (CAD), introduced 2½ years previously, was yet to deliver the full range of benefits and improvements.

Because of data collection difficulties with the CAD, the Audit Office was not in a position to comment authoritatively on the Service's performance. However, the Service agreed that overall responsiveness had not improved on 1997 performance. There were also significant barriers to achieving greater efficiency in that resources were not appropriately deployed to areas and times of highest demand, and there were problems with ambulance diversion and waiting at some hospitals.

The 2001 report made 29 specific recommendations, including proposals to change the Service's governance structure and to make changes to most facets of the Service's organisation and operations. At the time, the Service was generally supportive of the Review recommendations.

The 2007 Follow-Up report found that all the original recommendations had been substantively implemented. The Government had made changes to the Service's governance structure (restructuring the Ambulance Board and reporting structure in 2002 and subsequently, in 2006, making the Service a unit of NSW Health). Implementation of the remaining recommendations and other initiatives not part of the 2001 report had resulted in slightly improved response times, continuing high customer satisfaction levels, and generally improved performance.

However further analysis indicates that, although there were significant improvements across the six year period (as the 2007 report indicates), full implementation of some recommendations remains incomplete. Two key examples are that automation of the rostering system has not been completed and that barriers to flexibility in resource deployment have not been fully removed (although the current wage case incorporates a review of award conditions).

2. Auditor-General's Reports on Ambulance/Hospital interface 2003 and 2004

The 2003 Report examined the use of the Emergency Department Network Access Scheme (EDNA). This was introduced by the Ambulance Service and the Department of Health to improve ambulance patients' access to hospital services by reducing ambulance delays at EDs.

Overall, the EDNA initiative was judged as having been effective in establishing a consistent and transparent method for judging hospital capacity and in engaging the whole hospital, not just the ED, in responding to overcrowding. However, whilst EDNA had had some impact on sharing demand, there had not been an overall reduction in ambulance delays at hospitals.

The Department of Health accepted all three recommendations relating to access to information by EDNA on the status of all network hospitals, measures to encourage accurate reporting on hospital capacity, and an assessment of the impact of EDNA.

The last mentioned was being done by linking the Ambulance data set with hospital data sets (ED and in-patient).

The 2004 audit examined the way in which the Ambulance Service and public hospitals respond to and treat patients who seek emergency assistance. It noted the disproportionate increases in ED attendances and emergency ambulance transports compared to the rate of population increase.

The shortage of beds in hospitals is attributed largely to the difficulties in discharging aged care patients. The Department of Health estimate is that up to 900 inpatient beds are occupied by patients who should be in nursing homes or, with appropriate support, back in their own homes.

The report's recommendations covered areas such as the need to:

- address shortages of medical, nursing and allied health staff;
- explore with the Commonwealth further trials of after-hours GP clinics;
- reduce patient flow problems and access block in hospitals; and
- negotiate with the Commonwealth on greater nursing home placements.

Most of these recommendations have been, or are in the process of being, implemented by NSW Health. For instance, in 2005 the Department introduced a Sustainable Access program designed to reduce the impact of access block. More structural changes (e.g. in aged care) may be considered in the context of the current COAG Working Group on Health and Ageing.

One recommendation from this Review has not been implemented. The Audit Office recommended that the quality of management information to support better decision making be improved by:

- linking CAD and the EDIS;
- ensuring that hospitals where appropriate adopt real-time EDIS operation to improve timeliness and accuracy of data; and
- monitoring and disseminating information on ambulance diversions and non-emergency transport performance.

CAD and EDIS have not been linked, although the Ambulance Service does supply daily information to AHSs on off stretcher times and long delays. Clearly, greater integration of the two systems would result in greater efficiencies but there are understood to have been technological impediments in proceeding quickly. The project on electronic health records is expected to assist in this area.

3. *Auditor-General's Report – State Rescue Board (2005)*

This audit examined the role of the State Rescue Board in coordinating the five providers of land rescue services in NSW: NSW Police, Ambulance Service, Fire Brigades (permanent services), the State Emergency Service, and Volunteer Rescue Association (volunteer organisations).

The audit did not comment on which agency or agencies should be providing rescue services nor did it evaluate the performance of individual providers of rescue services. However, the report observed that most other jurisdictions have a single provider, generally the Fire Brigades, to undertake land rescue in metropolitan areas

and that the Ambulance Service of NSW had sought to withdraw from the rescue function in 2001.

The report proposed the development of a strategic approach to rescue with the introduction of service standards, better information on performance and enhanced accreditation criteria. At the time, the Board (chaired by Mr P Koperberg) supported most of the recommendations and indicated that a number had already been addressed.

In line with the audit recommendations, the Board is currently preparing a draft strategic plan on its operations. It is understood that this will be in line with current Government policy and the respective roles of the existing providers of rescue services.

4. *IPART Review on Financial Aspects of the Ambulance Service of NSW (2005)*

This Review found that the costs of running the Ambulance Service either were in line with, or were well below, those for similar services in other Australian jurisdictions but that the fee structure and scales did not reflect the costs of providing services. On average, fees recovered less than 60% of the costs of services and the situation was seen as detrimental to the financial sustainability of the Service.

Recommendations were made for changes to fees and new fee scales for each type of service. A review of the *Health Insurance Levy Act 1982* was proposed to address the concerns of participants in the industry. Other options to be considered included a more broad-based ambulance levy through Medicare, or the introduction of a Community Ambulance charge.

In 2006, the Government endorsed the IPART recommendations for changed or new charges. These have been applied from the 2006/07 financial year. The changes include:

- charging “treat not transport” patients (previously not charged);
- charging a standby fee when involved in dangerous incidents or events (e.g. chemical spills or industrial accidents);
- charging all DVA clients; and
- increased, more cost reflective fees for inter hospital transfers and for primary cases.

IPART proposed that funding for the Ambulance Service should be revisited in three years to assess its progress towards sustainability. The Government accepted this recommendation and such a review is due towards the end of the 2008/09 financial year.

A number of the IPART recommendations remain to be implemented or were suggested for further review. These are:

Rec 13: Ambulance Service to clarify its hardship policy.

Rec 15: Department of Health to undertake a public education campaign in consultation with private health insurance funds to raise public awareness of ambulance charges and insurance options.

Rec 17: Government review of the *Health Insurance Levy Act 1982*.

- Rec 18: Review the exemptions policy, or seek to recoup from the Commonwealth the cost of exemptions given to Health Care Card holders.
- Rec 20: Government should explore the introduction of an ambulance-service component to the Medicare levy.
- Rec 21: Government should consider the introduction of a Community Ambulance charge should it not be possible to reach agreement on a national system of funding by the Medicare levy.

5. *ORH Reviews of Operations (2002 and 2004)*

These reviews were commissioned by the Ambulance Service in order to examine possible improvements to its operations. Two reviews examined the operational arrangements in Sydney and other regional sectors respectively, one examined the four Operations Centres (where calls are taken and ambulances dispatched), and the other was a review of rotary wing (helicopter) services across the State.

The Sydney and regional reviews had particular focus on staff utilisation and resources, and methods to improve performance in mobilisation and response times. The Sydney report noted that with the current (2002) rostering system, relief capacity was low or non-existent for some staff groups and that most overtime arose from minimum operating levels (MOLs) in industrial agreements for an unpaid one-hour meal break in the day shift. It was noted that mobilisation and average response times were both high in relation to good practice.

Proposals from the Sydney review to fund additional Ambulance Officers and Patient Transport Officers, introduce a rapid response tier, and introduce new rosters have been implemented. Roster reform was completed with the introduction of the afternoon shift and amended starting times. The proposal to replace MOLs with a deployment plan was not completed, presumably because of the existing industrial arrangements.

The regional review found that the balance between establishment, planned deployment and relief capacity was out of kilter across the areas and there was continuing pressure on overtime for both shift cover and call-outs. Proposals from the review for more investment in resources in Group 1 sectors and for re-deploying resources in Groups 2 and 3 were overtaken by negotiations with the HSU for the introduction of 230 additional staff. The rollout of additional staff was completed in June 2007. ORH is currently undertaking a second review of Groups 2 and 3 in regional areas.

The review of the Operations Centres found that performance was constrained by a number of factors including working practices at dispatch boards, shortage of resources at some times and in some areas, technical shortcomings, and local industrial agreements which complicate and restrict dispatcher functions. Because of the review, and the proposal for tighter standardisation of working practices, a performance improvement plan was introduced into the Sydney Operations Centre. The plan is now being rolled out to the Northern Operations Centre. The proposed rationalisation of dispatch boards has also been completed and a PTO Board introduced.

The Service advises that the Switch program, commenced in February 2006, has overtaken some particular recommendations in the ORH report, such as the

introduction of revised positions. Switch is a project designed to improve the efficiency of work practices and processes in the Sydney Operations Centre.

The Rotary Wing services review examined the provision of helicopter services in NSW, noting that their development by the operating companies (largely NGOs) had not been within a NSW Health or Ambulance policy framework with resultant anomalies and weaknesses. Some of these were low utilisation rates, mobilisation delays caused by non-dedicated crew arrangements, restrictions with retrievals due to doctor unavailability, and concerns over the level and currency of staff training.

The principal proposals were for tenders to be undertaken for specific services. As a result, a new contract with CHC commenced in May 2007. Other proposals (e.g. specific helicopter location requirements, mobilisation targets) have been implemented with the new contract arrangements. An enhanced management structure for the Medical Retrieval and Aero-medical Services Directorate was completed in August 2007. ORH also recommended a review of the trauma system in NSW and its relationship with helicopter cover; this review was undertaken in 2007 and a draft report is with the Department of Health.