
9 Emergency management

Emergency management aims to reduce the level of risk from emergencies to the community. The activities of emergency management agencies reduce the negative effects of emergencies and improve the level and perception of safety in the community.

Emergency management includes all services involved in prevention, preparedness, response and post-emergency recovery that are fully or partly funded by governments for emergency 'events' such as fires, accidents, storms, earthquakes, flood, landslides, medical emergencies, mass casualty, escape of hazardous materials, exotic animal/plant diseases, civil defence and utility failure.

This is the second year the Report has covered emergency management, and the focus is on the separate reporting of fire and medical emergency services (see box 9.1 for definitions). The reporting of indicators has considerably progressed. This year the chapter includes detailed performance information on fire services in terms of:

- outcomes — fire death rate, fire injury rate, median dollar loss per structural fire, total property losses from fire, and number of fire incidents;
- preparedness — proportion of residential buildings with smoke alarms and proportion of commercial buildings with sprinklers;
- response — 50th and 90th percentile response times, and containment of fires; and
- efficiency — expenditure per person;

and on ambulance services in terms of:

- response — community and patient satisfaction at a national level, and 50th and 90th percentile response times; and
- efficiency — expenditure per person.

The Steering Committee is currently surveying emergency management activities to determine which event areas are a priority for national emergency management. The survey results will provide a basis for expanding the scope of the chapter to report on the management of other emergency events.

9.1 Profile of emergency management

The management of emergencies and disasters requires cooperation between Commonwealth, State and Territory Governments and local governments, industry, community organisations and the community in general.

The responsibility for protecting lives and property is shared among all sectors of society and all levels of government. State and Territory Governments are responsible for legislating regulatory arrangements and delivering police, fire, ambulance and pre-hospital services to the community. There are also many other government agencies that contribute to emergency management. The primary role of the Commonwealth Government is to support and develop national emergency management capability by:

- coordinating the Commonwealth's material and technical assistance in the event of an emergency;
- providing financial assistance to ameliorate some effects of natural disasters (through the Natural Disaster Relief Arrangements);
- providing information, best practice materials and learning programs; and
- supporting community awareness activities.

Commonwealth Government agencies also have specific emergency management responsibilities, such as control of exotic animal diseases; aviation and maritime search and rescue; management of major marine pollution and meteorological and geological hazards; development of fire codes for buildings and firefighting services at airports; human quarantine; and research and development.

Local governments in most States and Territories are involved to varying degrees in emergency management (IC 1997). Their roles and responsibilities may include:

- considering public safety in town planning and development to account for emergencies such as fires and floods;
- developing local emergency and disaster plans and allocating resources for response and recovery activities; and
- supporting local volunteer fire and/or emergency service units.

Box 9.1 Definitions in fire and ambulance services

Some terms commonly used in this chapter are:

- *fire death* — a fatality that the reporting officer deems as directly attributable to the incident or the action of handling the fire incident. This excludes fatalities where a fire conceals a death occurring before the fire incident. This information may be verified by a coronial inquiry;
- *fire injury* — an injury that the reporting officer deems as directly attributable to the incident or the action of handling the incident. An injury is defined as requiring treatment by a medical practitioner or third party and/or at least one day of restricted activity immediately after the incident;
- *structural fire* — a fire inside a building or structure, whether or not there was damage to the structure;
- *nonstructural fire* — a fire outside of a structure where the material burnt has value, such as yard storage and crops;
- *proportion of structural fires contained to object or room of origin* — a fire where direct fire/flame is contained to the room of origin (that is, excludes wildfires and vehicle fires in unconfined spaces). A room is an enclosed space, regardless of its dimensions or configuration. This category should be confined to residential and nonresidential structures;
- *fire incident* — a fire that requires a fire service response;
- *other incident* — an incident that requires a fire service response other than fire. This may include:
 - overpressure rupture (for example, steam or gas), explosion or excess heat (no combustion);
 - rescue (for example, resuscitator or emergency medical call);
 - hazardous condition (for example, escape of hazardous materials);
 - salvage; and
 - storm and extreme weather;
- *false report* — an incident where the fire service has responded and investigated the site and found that no action was necessary; and
- *paramedic response* — a level of emergency care categorised as advanced life support.

Sources: CAA (1998); NSW Fire Brigades (1997).

Fire services

State and Territory Governments are primarily responsible for the delivery of fire services. The Commonwealth Government provides fire services at only airports and defence installations. The Commonwealth, State and Territory Governments

also develop building fire codes, fire research, and policies and advice on fire safety. Local governments support fire services in a number of ways, including direct support of rural brigades, payment of statutory levies and the clearing of vegetation in high risk areas.

The fire services provided by State and Territory Governments cover all aspects of emergency management (prevention, preparedness, response and recovery), including such activities as:

- prevention — public education and training, advice on rural land management practice for hazard reduction and fire prevention, and preparation of risk assessment and emergency management plans;
- preparedness — preparation of response plans, training of fire personnel, inspection of property and buildings for fire hazards and fire standards compliance, hazardous chemicals and material certification, and inspection of storage and handling arrangements;
- response — urban and rural fire suppression, response to incidents involving hazardous substances, and road and industrial rescue; and
- recovery — critical incident stress debriefing, salvage and restoration of the emergency event to a safe state, and support for the community.

Most States and Territories have separate urban and rural fire services. Fire services in urban areas typically respond to residential and commercial structural fires, incidents involving hazardous materials, and road accidents within major urban centres. Fire services in rural areas are separated into those services that chiefly respond to local structural fires and other events, and rural nonstructural fires (including crops, bush and grassland fires on private property), and those that chiefly respond to fires in national parks and State forests. The latter are provided by land management departments in each jurisdiction; this chapter does not cover the performance of land management agencies.

The provision of fire services in urban and rural areas varies significantly across jurisdictions. Queensland, WA and Tasmania operate a single statutory authority which delivers fire services in both urban and rural areas. NSW, SA and the NT have separate statutory authorities for fire services in rural and urban settings. In Victoria, two statutory authorities provide fire services across the State (excluding public land). The boundary between the two authorities runs through the Melbourne metropolitan area. In the ACT, two fire agencies (urban and bushfire) operate under the Emergency Services Bureau (table 9.1).

Table 9.2 Primary fire services, 1998^a

	<i>Urban</i>	<i>Rural</i>
NSW	NSW Fire Brigade — the brigade reports to the Minister for Emergency Services directly.	NSW Rural Fire Service — day-to-day management of each brigade rests with the local councils, but each brigade is operationally responsible to the NSW Rural Fire Service which reports to the Minister for Emergency Services.
Vic	Metropolitan Fire and Emergency Services Board — this statutory authority reports to the Minister for Police and Emergency Services.	..
	Country Fire Authority — this statutory authority reports to the Minister for Police and Emergency Services.	
Qld	Queensland Fire and Rescue Authority — this statutory authority reports to the Minister for Emergency Services.	
WA	Fire and Emergency Service of WA — this umbrella statutory authority reports to the Minister for Police and Emergency Services directly and incorporates the Bush Fire Service, State Emergency Service and Fire and Rescue.	
SA	Metropolitan Fire Service — this statutory authority reports to the Minister for Emergency Services directly.	Country Fire Service — the board of this authority reports to the Minister for Emergency Services directly.
Tas	Tasmania Fire Service — this is the operational arm of the State Fire Commission, which reports to the Minister for Health and Human Services.	
ACT	ACT Fire Brigade and ACT Bushfire Service — these are agencies of the ACT Emergency Services Bureau, which reports to the ACT Minister for Justice and Community Safety.	
NT	NT Fire and Rescue Service — this is a branch of the larger Department of Police, Fire and Emergency Services. The Chief Fire Officer reports to the Commissioner for Police, who reports to the Minister for Police, Fire and Emergency Services.	Bush Fires Council — this is part of the Parks and Wildlife Commission of the NT, managed by a board of pastoralists. The board reports to the Minister for Parks and Wildlife. ^b

^a Excludes brigades employed by large scale public and private land managers, port, mining and other infrastructure brigades as well as brigades operating under Commonwealth jurisdiction (for example, airport and defence installations). Also excludes agencies under the auspices of land management departments.

^b The NT Bush Fires Council is primarily a land management organisation and responds to only grass and bushfires on land outside the Fire and Rescue Service response areas. .. Not applicable.

Jurisdictions with more than one fire authority separate services in different ways. NSW separates fire services on functional grounds, whereas Victoria separates fire services by geographic area.

Information on the reported fires and other primary incidents was provided separately for each fire agency in each jurisdiction. Nationally 37 per cent of reported incidents were false alarms. Fire services are required by legislation to respond to all calls, and an incident is not deemed to be a false report until the fire service has responded and investigated the site.

The proportions of incident types varied substantially across jurisdictions in 1997-98. The WA Fire and Rescue Service, for example, attended 21 117 incidents of which 53 per cent were fires, 10 per cent were other incidents (for example, escape of hazardous chemicals) and 37 per cent were false reports. The NSW Fire Brigade responded to 111 671 incidents, of which 30 per cent were fires, 27 per cent were other incidents and 43 per cent were false reports (table 9.3).

Table 9.4 Reported fires and other primary incidents, 1997-98 (number)

	<i>Fires</i>	<i>Other incidents</i>	<i>False reports</i>	<i>Total reports</i>
NSW				
— NSW Fire Brigade	33 617	30 455	47 599	111 671
— NSW Rural Fire Service	13 760	5 221	2 585	21 566
— Total NSW	47 377	35 676	50 184	133 227
Victoria				
— Metropolitan Fire and Emergency Services Board	9 840	5 640	16 643	32 123
— Country Fire Authority	10 871	4 685	6 995	22 721
— Total Victoria	20 711	10 325	23 638	54 844
Queensland				
— Queensland Fire and Rescue Authority ^b	13 009	8 783	20 711	42 503
WA				
— Fire and Rescue Service	11 298	2 091	7 728	21 117
— Bush Fire Service	2 612	21	113	2 746
— Total WA	13 910	2 112	7 841	23 863
SA				
— Metropolitan Fire Service (metropolitan)	3 709	12 348	3 741	19 798
— Metropolitan Fire Service (rural)	868	1 427	668	2 963
— Country Fire Service	4 519	2 189	267	6 975
— Total SA	9 096	15 964	4 676	29 736
Tasmania				
— Tasmania Fire Service	4 579	870	3 885	9 334
ACT				
— ACT Emergency Services Bureau ^a	1 760	1 853	4 831	8 444
NT				
— Fire and Rescue Service	2 048	948	2 586	5 582
— Bush Fires Council	na	na	na	na
— Total NT	na	na	na	na
Total	203 584	140 608	204 691	549 203

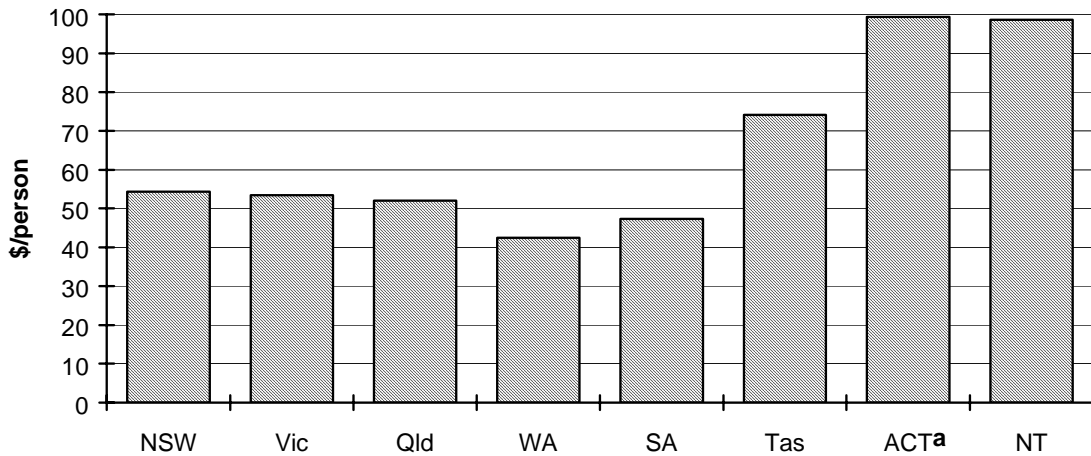
^a Reported fires include both the ACT Bushfire Service and the ACT Fire Brigade. Other incidents and false reports include the ACT Fire Brigade only. ^b Excludes Rural Fire Service data. **na** Not available.

Source: table 9A.1.

Approximately \$1 billion was spent in 1997-98 on the fire services covered in this Report. Expenditure per person was highest in the NT (\$99 per person) and lowest in WA (\$42 per person). Expenditure for the ACT (\$99 per person) included

expenditure on the ACT Fire Brigade, ACT Bushfire Service, ACT Emergency Service and ACT Ambulance Service (figure 9.1).

Figure 9.2 **Fire expenditure, 1997-98**



^a Total expenditure for the ACT includes expenditure for four response agencies: the ACT Fire Brigade, ACT Bushfire Service, ACT Emergency Service and ACT Ambulance Service.

Data source: table 9A.13.

The primary sources of funding across all jurisdictions were the State and Territory Governments, levies on insurance companies and property owners, user charges, and fund raising. Levies on insurance companies were the primary source of funding for the NSW Fire Brigade, all Victorian fire services and some WA and SA fire services. The State Government was the sole source of funds for NT fire services. Levies on property owners were the primary source of funds in Queensland (76 per cent of all funding) and Tasmania (50 per cent of all funding) (table 9.5).

In addition to normal funding resourcing, all States and Territories rely to some extent on volunteer fire fighters who make a significant contribution to the community.

Table 9.6 Source of funding for fire services, 1997-98^a

	State Govt	Local govt	Levies on insurance companies	Levies on property owners	User charges	Other	Total value	
	%	%	%	%	%	%	%	\$m
NSW								
— NSW Fire Brigade	14	12	74	0	0	0	100	273
— Rural Fire Service	14	12	74	0	0	0	100	70
Victoria^b								
— Metropolitan Fire and Emergency Services Board	11	11	63	0	1	14	100	150
— Country Fire Authority	22	0	68	0	2	8	100	109
Queensland Fire and Rescue Authority	19	0	0	76	4	1	100	178
WA								
— Fire and Rescue Service (Permanent)	13	12	75	0	0	0	100	62
— Fire and Rescue Service (Volunteers)	100	0	0	0	0	0	100	6
— Bush Fire Service ^c	100	0	0	0	0	0	100	8
SA								
— Metropolitan Fire Service	13	12	75	0	0	0	100	55
— Country Fire Service ^d	48	0	40	0	0	10	100	16
Tasmania Fire Service	8	0	21	50	17	4	100	35
ACT Emergency Services Bureau ^e	79	0	0	0	21	0.4	100	31
NT								
— Fire and Rescue Service	100	0	0	0	0	0	100	15
— Bush Fires Council	100	0	0	0	0	0	100	4

^a Totals may not sum to 100 per cent as a result of rounding. ^b The proportions of principal funding contributions from State Governments, local governments and insurance companies are established in legislation. The actual proportions received may vary as a result of the level of income from user charges and other income sources. ^c The Bush Fire Service does not include Bush Fire Brigades which are the responsibility of local government. ^d Other income includes \$1 million received from AUSAID for reimbursement of costs of the Indonesian Fire Suppression Exercise. ^e Total expenditure for the ACT includes expenditure for four response agencies: the ACT Fire Brigade, ACT Bushfire Service, ACT Emergency Service and ACT Ambulance Service.

Source: table 9A.2.

Ambulance services

Ambulance services include the provision of:

- emergency pre-hospital patient care and transport in response to sudden injury and illness;
- emergency patient retrieval;
- emergency pre-hospital patient access (for example, in confined spaces and hazardous environments);
- aeromedical patient services;
- inter-hospital patient transport;
- road accident rescue; and
- planning and coordination of patient services in multicasualty events.

Not all ambulance services provide all these services. Some government ambulance services provide first aid training courses; St John Ambulance Australia and the Red Cross (non-government providers) also provide such courses. In addition, the Royal Flying Doctor Service plays an important role in medical emergencies in remote inland areas of Australia.

Ambulance services attended over 1.8 million cases nationally in 1997-98. For those jurisdictions where data were available, patients were transported from 76 per cent of cases in NSW to 97 per cent of cases in WA. An emergency stretcher ambulance was the most common vehicle dispatched nationally (table 9.7).

Approximately \$645 million was spent in 1997-98 on ambulance services. Expenditure per person was highest in the NT (\$46 per person) and lowest in WA and SA (\$24 per person) (figure 9.3).

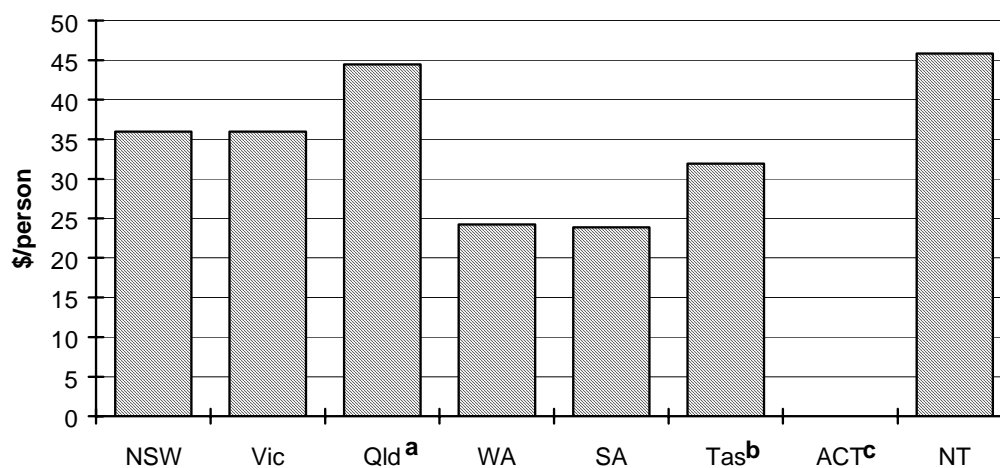
Table 9.8 Reported ambulance incidents, 1997-98 (per cent)

	NSW ^a	Vic	Qld	WA	SA	Tas	ACT	NT
<i>Patients transported</i>								
Emergency stretcher ambulance	41.1	46.9	54.6	57.8	56.5	81.1	69.9	17.9
Non-emergency stretcher ambulance	33.5	26.4	36.6	38.8	28.9	5.8	8.4	30.9
Clinic/non-stretcher patients	na	8.5	4.2	0.0	0.0	0.0	6.1	28.8
Air ambulance	1.2	1.1	0.2	0.0	0.0	0.0	0.0	0.0
Total patients transported	75.9	82.9	95.6	96.7	85.4	86.9	84.4	77.6
<i>Patients treated, not transported</i>								
Emergency stretcher ambulance	11.2	na	3.5	0.0	10.8	0.0	9.6	0.0
Non-emergency stretcher ambulance	0.7	na	0.1	0.0	0.4	0.0	1.4	0.0
Clinic/non-stretcher patients	na	na	0.0	0.0	0.0	0.0	0.0	0.0
Air ambulance	0.0	na	0.0	0.0	0.0	0.0	0.0	0.0
Public events	0.3	na	0.8	0.3	0.6	0.0	0.0	0.0
Total patients treated	12.1	na^b	4.4	0.3	11.8	0.0	11.0	0.0
<i>Ambulance not required</i>								
Total incidents when ambulance was not required	12.0	na^b	na^c	3.0	2.8	13.1	4.6	22.4
<i>Total cases ('000s)</i>	694.7	384.7	459.1	118.8	139.9	46.4	18.0	22.0

^a Clinic and non-stretcher patients were not recorded separately in NSW. ^b Data not separately available for 'patients treated, not transported' and 'ambulance not required'. An aggregate figure of 17.1 per cent represents these reported ambulance incidents. ^c Data not separately available for 'patients treated, not transported' and 'ambulance not required'. **na** Not available.

Source: table 9A.14.

Figure 9.4 Ambulance expenditure, 1997-98



^a Data were provided on an accrual basis, and include expenditure on the administration of the subscription scheme, first aid and clinic transports. A full accrual breakdown of the expenditure of emergency services provision was not available at the time of reporting. ^b Data were provided on a full accrual basis and exclude expenditure on administration of the ambulance subscription scheme, hospital based transport services, independent ambulance services, first aid training and clinic transport services. ^c Due to the integrated nature of ACT emergency services, it was not possible to provide separate expenditure data for ambulance services. Total expenditure for the four services is reported in figure 9.1.

Data source: table 9A.19.

Ambulance services in most jurisdictions are provided by State and Territory Governments. In WA and the NT, St John Ambulance is under contract with the respective State and Territory Governments as the primary provider of ambulance services (table 9.9).

Table 9.10 Relationships of primary ambulance response and management agencies to government, 1998

NSW	Ambulance Service of NSW — a statutory authority reporting to the Minister for Health
Vic	Ambulance Service Victoria (metropolitan and six country services) — separate statutory corporations reporting to the Minister for Health
Qld	Queensland Ambulance Service — a statutory authority reporting to the Minister for Emergency Services
WA	St John Ambulance — an incorporated not-for-profit organisation under contract to the WA Government
SA	South Australian Ambulance Service — an incorporated joint venture between the Minister for Justice and St John Priory Australia
Tas	Tasmanian Ambulance Service — a statutory service of the Hospital and Ambulance Division of the Department of Health and Human Services
ACT	ACT Ambulance Service — an agency of the ACT Emergency Services Bureau reporting to the ACT Minister for Justice and Community Safety
NT	St John Ambulance — an incorporated not-for-profit organisation under contract to the NT Government

Nationally, ambulance services received funding from a number of different sources, including transport fees (from government and private hospitals and insurance), subscriptions and levies, and government contributions. The distribution of funding sources varied across jurisdictions. The government was the largest contributor to ambulance services in Tasmania (86 per cent), NSW (77 per cent), Victoria (55 per cent) and the NT (48 per cent) (table 9.11).

All jurisdictions received funding from transport fees from government and private hospitals and insurance. Tasmania relied the least on transport fees (14 per cent) and WA relied the most on these fees (55 per cent, with the majority sourced from private citizens) (table 9.12).

All jurisdictions except NSW and Tasmania received funding from subscriptions and levies. Queensland relied the most on this funding source (table 9.13)

Table 9.14 Source of funds for ambulance services, 1997-98 (per cent)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT^a</i>	<i>NT</i>
Transport fees								
–from government hospitals	14.7	4.2	8.2	0.6	8.5	5.9	na	7.0
–from private citizens	4.7	5.2	3.7	52.5	0.4	3.8	na	12.2
–from insurances	3.3	4.8	0.9	2.4	3.6	3.0	na	2.1
–other	0.7	2.3	1.7	0.0	27.4	1.6	na	0.0
Total transport fees	23.4	16.5	14.5	55.5	39.9	14.2	na	21.4
Subscriptions/levies	0.0	24.5	41.9	2.4	20.8	0.0	na	5.1
Government contributions	76.6	54.8	37.8	25.7	35.9	85.8	na	48.1
Other	0.0	4.1	5.8	16.3	3.4	0.0	na	25.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	na	100.0
Total (\$ million)	228.0	166.4	159.6	45.1	49.6	12.9	na	8.0

^a The sources of funds for the ACT Ambulance Service were included in the ACT Emergency Services Bureau data in table 9.3 and could not be provided separately. The total expenditure in table 9.3 includes expenditure for the four response agencies under the Emergency Services Bureau: the ACT Fire Brigade, ACT Bushfire Service, ACT Emergency Service and ACT Ambulance Service. **na** Not available.

Source: table 9A.15.

9.2 Policy developments in emergency management

Improved communications and dispatching systems

Most jurisdictions have sought to improve their communication systems through the implementation of a centralised Computer Aided Dispatch (CAD) system for all emergency services. The aims of the system are to:

- make the most efficient use of personnel resources;
- take advantage of modern telecommunications, vehicle tracking and computer based decision-support systems;
- relieve on-call staff/volunteers of call-taking responsibilities; and
- facilitate improved coordination between services.

NSW Ambulance has adopted a staged approach to implementing the system throughout the State. The system commenced in Dubbo in mid-1998 and will be extended to the metropolitan area in early 1999. The NSW Fire Brigade has also implemented a new CAD system, which will be used by the Rural Fire Service too. In Victoria, a private contractor operates the system, providing call-taking and dispatch services for a number of agencies (the police, the Metropolitan Fire and Emergency Services Board, the Country Fire Authority, ambulance and the State Emergency Service) throughout metropolitan Melbourne and near country areas.

The Queensland Fire and Rescue Authority and the Queensland Ambulance Service have implemented a CAD system for the Brisbane metropolitan area. The WA CAD system involves acquiring full scale emergency call-taking facilities to service the greater Perth metropolitan area. Initially the system will meet police requirements and later those of fire services and other organisations such as St John Ambulance.

SA is implementing a combined emergency services CAD system for commencement after June 1999. The Tasmanian Ambulance Service has signed a contract to install a new CAD System. The ACT Emergency Services Bureau, which has responsibility for ambulance, fire and the Territory Emergency Service, has operated a co-located dispatch system for all services since 1994.

Police, fire and emergency services in the NT are working towards implementing a combined communications centre in Darwin that should be operational by May 1999. It is expected that St John Ambulance will also be the centre.

To support the CAD system, radio communications systems are being upgraded through the installation of the Government Radio Network in some areas and a private mobile radio system in other areas of some States.

In addition to implementing CAD systems, some jurisdictions have established more advanced fire alarm monitoring systems. The NT has implemented a fire alarm monitoring system (known as NTFAST) which uses radio frequency to transmit a signal from the alarmed premises back to the fire station. The system has been operating in Alice Springs since June 1998, leading to a reduction in false alarms from automatic fire alarms. The operation of the system will be extended to other major centres throughout the NT by July 1999.

Risk management

The National Emergency Management Committee has endorsed Emergency Risk Management Guidelines based on the Australia/New Zealand Risk Management Standard. The standard provides a framework to systematically apply management policies, procedures and practices to the tasks of identifying, analysing, evaluating, treating and monitoring risk. As a result, many agencies have switched their emphasis from solely providing response and recovery activities in specific events to also including a range of strategies to reduce community vulnerability and to promote public safety. Some examples of these strategies include:

- community awareness and education programs;
- smoke alarm legislation; and
- bushfire fuel management strategies.

Community awareness and education programs are an important component of risk management strategies for the prevention and self management of emergency events. One example is the Prevention and Risk Management Directorate in WA, established to provide community education on all aspects of fire safety in WA. The strategy has involved programs targeting the aged, people with a disability and people from non-English speaking backgrounds. Other programs include a primary school fire safety program aimed at early primary school children. In 1998 a fire education program aimed at children in kindergarten commenced in NSW; this will be expanded in 1999 to cover other grades within primary schools. A school based fire safety program is also being developed in the NT for aboriginal communities, and this is expected to be introduced in 1999. Queensland has targeted initiatives to improve community awareness of fire risk at retired people, children in rural and remote areas and young drivers.

A further initiative to prevent emergency events is the introduction of smoke alarm legislation. The installation of smoke alarms is now mandatory in all new homes or homes undergoing major renovations in Queensland, NSW and the ACT. Every household in Victoria is required to install smoke alarms by 1 February 1999 and all new domestic dwellings in the NT have been required to install hard wired smoke detectors since 1 January 1998.

Strategies have been introduced in many jurisdictions to manage the risk of bushfires. The introduction of the *Rural Fires Act 1997* in NSW for example, provided for the implementation of bushfire risk management plans. In Victoria, legislation has been enacted to create 'industry brigades' to protect commercial plantations and to remove undue pressure on volunteer fire fighting services.

Councils in Victoria are moving to a risk management based model of emergency management planning, to ensure they fulfil the conditions under the Commonwealth's Natural Disaster Relief Arrangements to qualify for repeated assistance with predictable emergencies.

Multiservice coordination

Emergency service agencies regularly review the provision of services in response to changing demographic patterns and population distributions. To assist in the effective response of services to emergency events, many jurisdictions have adopted a coordinated multiservice approach. This has often included organisational restructuring, cooperation between fire and ambulance services, and co-location.

Organisational restructuring has played an important role in establishing a coordinated multiservice approach to emergency management. The NSW Fire

Brigade and the NSW Rural Fire Service have formed a strategic alliance to deliver services in both urban and rural communities; under the *Fire Services Joint Standing Committee Act 1998*, a committee has been established to plan and implement coordinated urban and rural fire services. The WA Department of Fire and Emergency Services was established in 1998 as an umbrella agency to provide a coordinated approach to policy, planning and service delivery for fire and emergency services throughout the State. In Tasmania, both the Tasmanian Ambulance Services and the Tasmanian Fire Service have been brought under the umbrella of the new Department of Health and Human Services.

To better use the resources of emergency service organisations, some jurisdictions have established cooperation between fire and ambulance services in responding to suspected cardiac arrests. Victoria is piloting a program to test the effectiveness of an emergency medical response role for the Metropolitan Fire Brigade in support of the Metropolitan Ambulance Service; ambulance paramedics are training Metropolitan Fire Brigade first responders. The NT Fire and Rescue Service recently purchased a number of defibrillators and resuscitators with a view to becoming first responders; this is being undertaken in conjunction with St John Ambulance who are also helping to train fire fighting staff.

Co-location refers to a trend among jurisdictions to share common facilities that incorporate ambulance and fire vehicles, equipment and staff. Co-location can also mean stationing ambulances at hospitals, particularly in rural areas. The aim of these reforms is to lower infrastructure costs without compromising responsiveness, and to improve the level of coordination and cooperation between the services. Tasmania has four co-located fire and ambulance stations. All new emergency service buildings in WA are to provide facilities for common use by all emergency services, especially in country locations. Similarly, in the NT, all new police or fire stations which will house permanent staff from both organisations are to be co-located facilities. In 1998 the ACT commissioned a Joint Emergency Services Centre in the new area of Gungahlin incorporating the police, ambulance, bushfire, fire and emergency service stations in one complex.

Lifeline vulnerability

Recent events have highlighted the importance of the protection of lifeline services such as electricity, water, sewerage and gas. Emergency Management Australia has sponsored the development of guidelines for the national protection of lifeline services.

Following the gas shortage caused by the explosion at Esso's Longford Plant in September 1998, the Victorian Government is reviewing:

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- the risks of major and prolonged disruption to gas, electricity and water supply, and sewerage services;
 - the risks of major environmental incidents; and
 - the responses to events and to community needs that may be expected of the emergency management system.

The review, due in March 1999, will cover risk assessment, regulatory structures, areas of weakness in lifeline supply, and further action that may be required.

Volunteers

The delivery of emergency services relies on the commitment of volunteers. Many jurisdictions are implementing strategies to address the pressures placed on volunteer fire brigades as a result of economic, labour market and socioeconomic trends.

In Victoria, the Country Fire Authority has implemented the Community Support Facilitators Program where facilitators:

- raise the profile of the brigade in the community;
- generate community acceptance of risk reduction and risk management objectives;
- maintain and improve volunteer viability and availability;
- reduce pressure on volunteer officers and the brigade; and
- develop effective links between the brigade, the community and other agencies.

WA and the NT have also implemented strategies to address the importance of volunteer brigades. WA has allocated resources to research issues related to volunteer activities, and thus to identify areas that are essential to the successful functioning of volunteer fire brigades. To address recruitment and retention rates, the NT Fire and Rescue Service and Emergency Service have combined volunteer groups in a number of small centres throughout the NT. This has eased the recruitment process by removing the competition between organisations for volunteers in communities with a small population base.

9.3 Framework of performance indicators

The framework of performance indicators in this chapter is based on the objectives of emergency management (box 9.2).

Box 9.3 Objectives for emergency management

Emergency management services aim to:

- reduce the effects of emergencies and disasters on the Australian community (including people, property, infrastructure, economy and environment);
- manage the risks to the Australian community; and
- enhance public safety.

The general framework has been applied to both fire and ambulance services. The framework uses the widely accepted ‘comprehensive approach’ (prevention/mitigation, preparedness, response and recovery) to classify the key functions common to emergency agencies. A somewhat similar approach has been used in examining health management (see chapter 5).

The aim of the indicator framework is to provide information on the efficiency and effectiveness of government funded emergency management services. Efficiency indicators report on the unit cost of service provision. Effectiveness indicators focus on:

- *outcomes* — an overarching measure of the effect of a service on the community, economy and environment. The effect may show the degree of service success (for example, the value of property saved);
- *prevention and mitigation* — strategies and services to prevent or reduce the frequency of emergency events or to lessen their effects. They include regulatory and physical measures (such as land zoning and compliance with building codes and standards) and public information campaigns to promote safe practices by the community;
- *preparedness* — strategies and services to position providers and the community to respond to emergency events quickly and effectively. They include emergency response planning, exercising and testing, training of emergency service personnel, standby and resource deployment and maintenance. Evacuation planning, detection, warning and community education and training are included as well. Preparedness also encompasses the establishment of equipment standards and the monitoring of adherence to these standards;
- *response* — strategies and services to control, limit or modify the emergency to reduce the consequences. They include implementing plans and procedures,

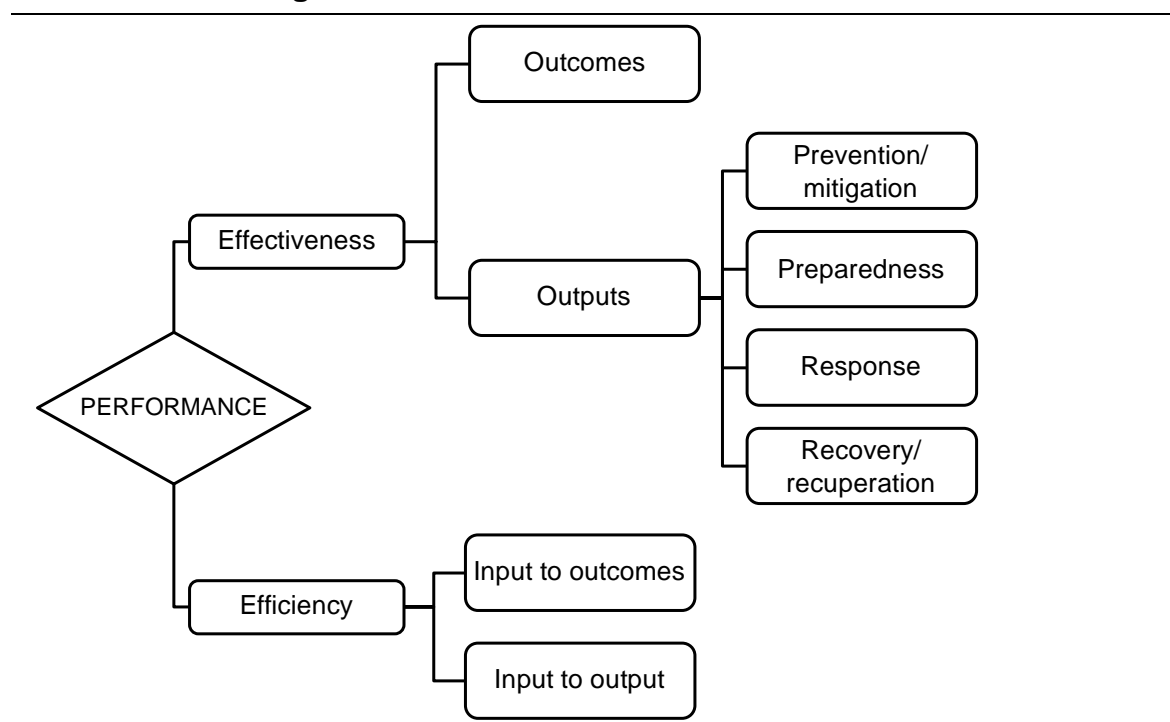
issuing warnings, mobilising resources, suppressing hazards, providing immediate medical assistance and relief, and undertaking search and rescue;

- *recovery (emergency services)* — strategies and services to return agencies to a state of preparedness after emergency situations. These include critical incident stress debriefing, salvage and restoration of the emergency site to a safe state; and
- *recovery (community)* — strategies and services to support affected communities in their reconstruction of physical infrastructure and restoration of emotional, social, economic and physical wellbeing. They include restoration of essential services, counselling programs, temporary housing, long term medical care and public health and safety information (figure 9.5).

Effective prevention activities will reduce the requirement to respond to, and recover from, emergency events. With a greater emphasis now placed on prevention, high levels of response and recovery are unlikely to represent the most effective performance or the most efficient use of resources.

Descriptor information is also provided in this chapter and the statistical appendix (appendix A) to assist in the interpretation of reported performance.

Figure 9.6 General performance indicators framework for emergency management



9.4 Future directions

Developing indicators and data

The indicator and data development for fire and ambulance services is being undertaken with the assistance of the Australasian Fire Authorities Council and the Convention of Ambulance Authorities. The development of detailed indicators and data collection will be an iterative process extending over several years and will be monitored to facilitate a consistent approach by the two organisations. Other indicators highlighted by the following frameworks should be available in future Reports.

This is the first year that data on the performance of fire and ambulance services has been reported on a comparable basis across jurisdictions, so most data are for a single year. Many indicators reported will provide more meaningful information when time series data are presented in future Reports.

Improving the treatment of superannuation

Next year's data collection will treat superannuation costs more consistently, in line with the Steering Committee's recommendations in *Superannuation in the Costing of Government Services* (SCRCSSP 1998). This should improve the comparability and accuracy of unit cost information in future Reports.

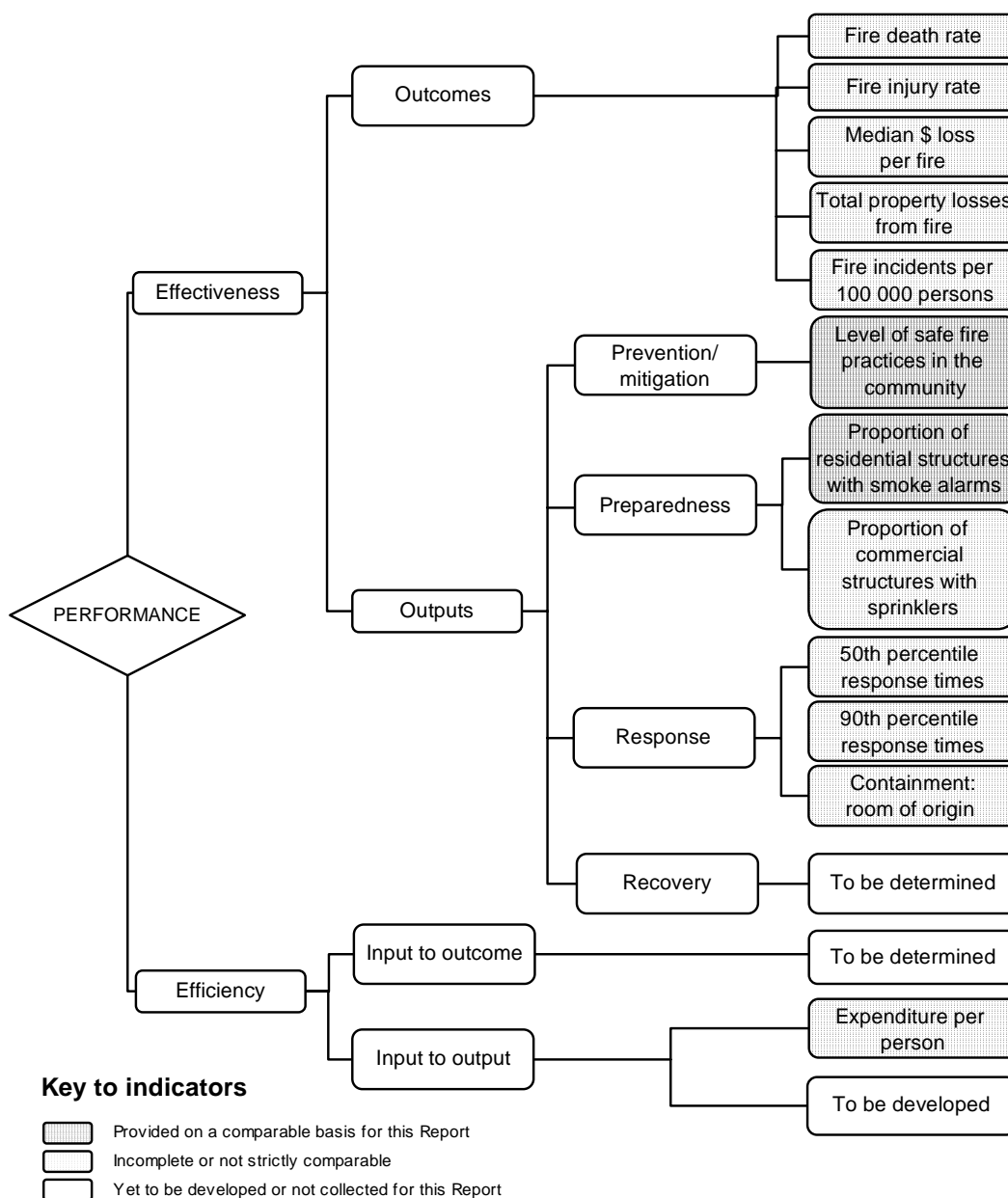
Increasing the scope of services covered

There are other types of emergencies for which performance reporting has yet to be considered. A current survey of emergency management activities will determine the event areas that are a priority for emergency management nationally, and the different departments or agencies that provide relevant services. This information will provide the basis for the scope of event types covered in future Reports.

9.5 Key performance indicator results — fire

An indicator framework for fire services (figure 9.7) has been developed from the generic framework. A description of all indicators is provided in attachment 9A.

Figure 9.8 Performance indicators for fire services



This is the first year that performance information has been reported for a number of indicators. The results of these indicators may have been influenced by factors such as differences in climatic and weather conditions, the socio-demographic composition of jurisdictions, property values and household construction types (see appendix A for additional jurisdictional information). Importantly, jurisdictions have diverse legislative fire protection requirements. It is mandatory in Victoria, for example, for every household to be fitted with smoke alarms, whereas smoke alarms are only mandatory in Queensland, NSW and the ACT for new homes or homes

undergoing major renovations. All new homes are required to install hard wired smoke detectors in the NT.

There has been significant progress in the reporting of data, but the results should be treated with caution. Data were often drawn from small samples, and definitions (such as fire deaths and fire injuries) varied across jurisdictions. Further, information was not reported for all fire agencies in each jurisdiction, so the results are indicative of the performance of the agency reported only, and not of all fire services within each jurisdiction. Thus, the performance is not strictly comparable across jurisdictions, although fire services are cooperating to improve and enhance the standards for the collection of fire incident data. It is anticipated that differences in definitions and counting rules will be minimised for future Reports.

Effectiveness

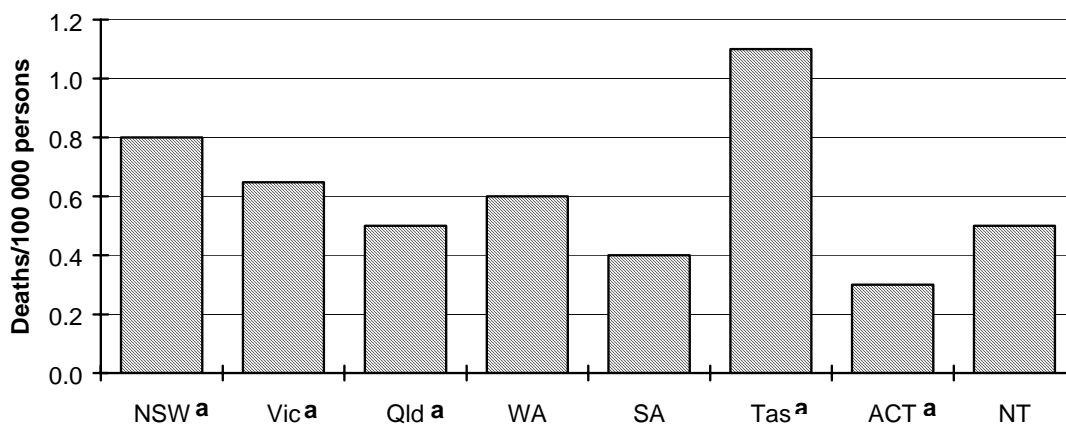
Outcomes

The indicators of outcomes reported here relate to the objective of fire services to minimise the effect of fire on life, property and the environment. Further consideration is being given to developing indicators that focus on other aspects of fire service performance (such as customer satisfaction).

The fire death rate and the fire injury rate are indicators of outcomes in terms of the effect of fire on life. The fire death rate was highest in Tasmania, with 1.1 deaths per 100 000 persons in 1997-98, and lowest in the ACT, with 0.3 deaths per 100 000 persons (figure 9.9).

The definitions used to count fire deaths varied across jurisdictions. Fire deaths reported in NSW, Victoria, Queensland, Tasmania and the ACT were verified by the respective State Coroner's findings, while in other jurisdictions only fire services determined deaths. It is expected that future reports will use more uniform reporting methods.

Figure 9.10 Fire death rate, 1997-98

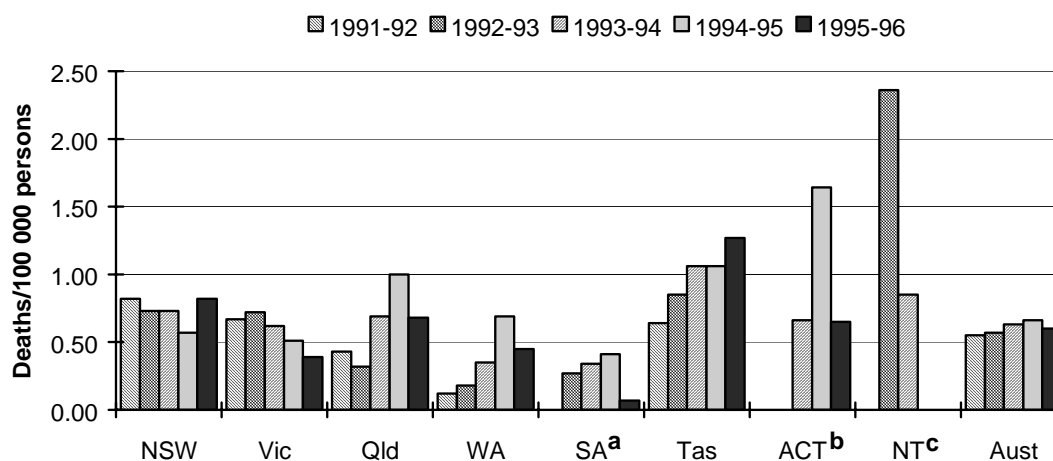


^a Death rate verified by the State Coroner.

Data source: table 9A.3.

Data on fire death rates in previous years are from an alternative source, so are reported separately. The fire death rate in any given year varied significantly across jurisdictions, reflecting factors such as the effect of major events. However, the national average fire death rate varied little from 1991-92 to 1995-96; the annual average over that time was 0.6 fire deaths per 100 000 persons. Across jurisdictions, the average for the same period was highest in Tasmania (1.0 death per 100 000 persons) and lowest in SA (0.2 deaths per 100 000 persons) (figure 9.11).

Figure 9.12 Fire death rate — time series



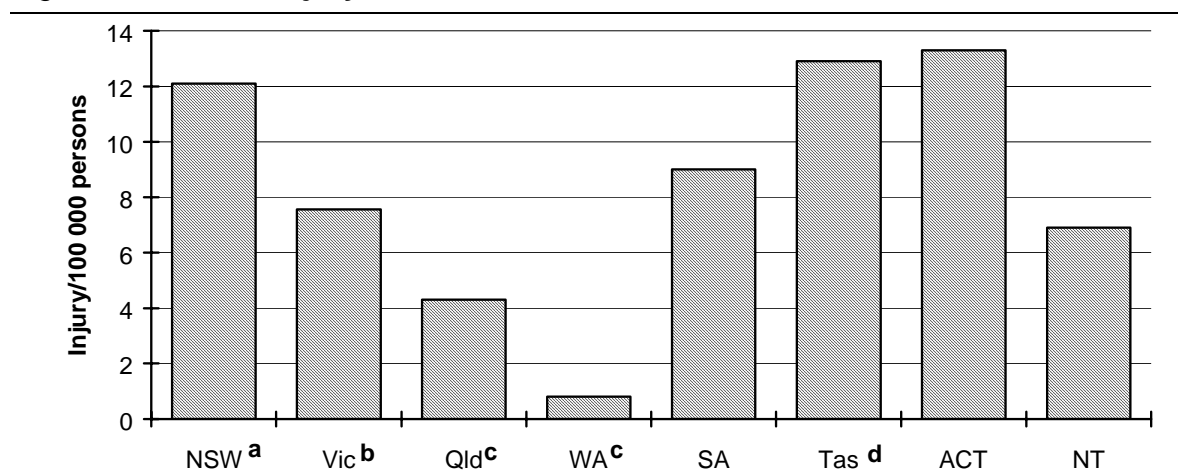
^a The fire death rate was zero in 1991-92 in SA. ^b The fire death rate was zero in 1991-92 and 1992-93 in the ACT. ^c The fire death rate was zero in 1991-92, 1994-95 and 1995-96 in the NT.

Data source: table 9A.4.

Jurisdictions used different definitions to identify fire injuries, so these results should be treated with caution. Further, information for NSW, Queensland and WA includes only urban fire services and therefore the results are not strictly comparable.

The fire injury rate varied across jurisdictions in 1997-98. It was highest in the ACT (including all ACT fire services), with 13.3 injuries resulting from fire per 100 000 persons, and lowest in WA (including WA urban fire services only), with 0.8 fire injuries per 100 000 persons (figure 9.13).

Figure 9.14 Fire injury rate, 1997-98



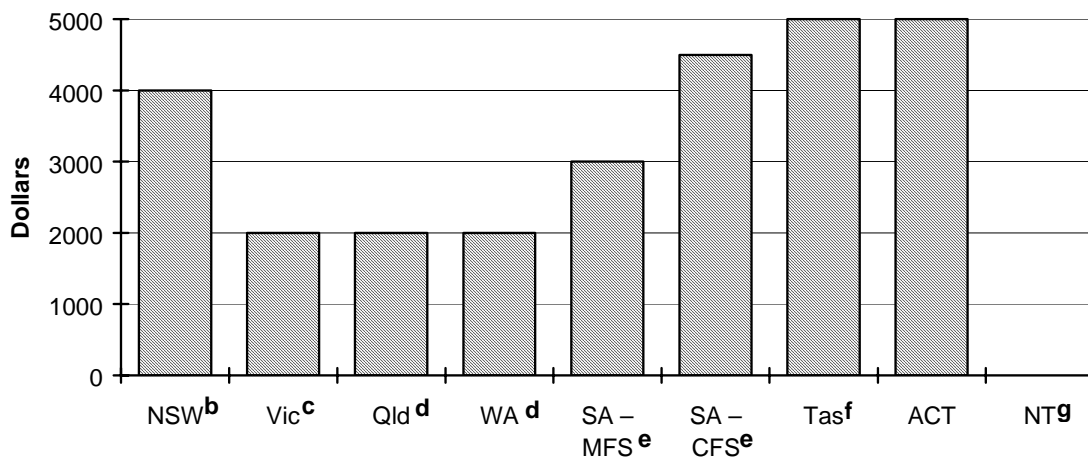
^a Includes both NSW Fire Brigades and the NSW Rural Fire Service. ^b Includes Victorian Metropolitan Fire and Emergency Services Board and the Country Fire Authority. ^c Includes urban fire services only and excludes rural fire services. ^d Includes both urban fire brigades and rural volunteer fire brigades.

Data source: table 9A.5.

The median dollar loss per structural fire and the total property loss from structural fire are indicators of outcomes in terms of the effect of fire on property, but they have not been adjusted for differences in the costs and values of various types of buildings from jurisdiction to jurisdiction. Structural fires are those fires contained in housing and other buildings. Information on both for NSW, Queensland and WA includes only urban fire services, so the results across jurisdictions are not strictly comparable. Further, the method of valuing property loss from fire varies across jurisdictions.

In 1997-98, the median dollar loss was highest in Tasmania (including all Tasmanian fire services) and the ACT (including all ACT fire services) — \$5000 per structural fire — and lowest in Victoria (including all Victorian fire services), Queensland (including Queensland urban fire services only) and WA (including WA urban fire services only) — \$2000 per structural fire (figure 9.15).

Figure 9.16 Median dollar loss per structural fire, 1997-98^a

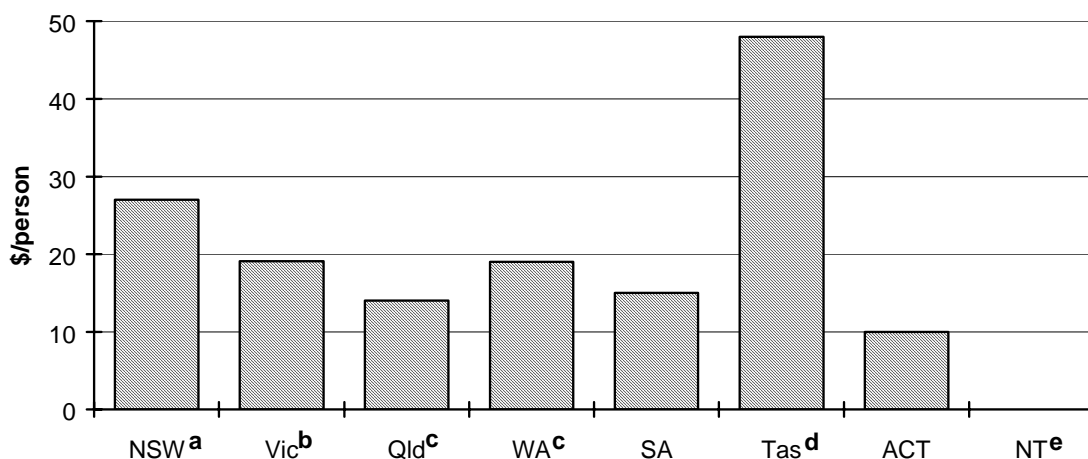


^a The median loss is regarded as a more accurate measure than the average loss because the median is less affected by extreme values, such as a major financial loss resulting from a single structural fire. ^b Includes NSW Fire Brigades only and excludes the NSW Rural Fire Service. ^c Includes Victorian Metropolitan Fire and Emergency Services Board and the Country Fire Authority. ^d Includes urban fire services only and excludes rural fire services. ^e Data for the SA Metropolitan Fire Service and the SA Country Fire Service (CFS) could not be combined. ^f Includes both urban fire brigades and rural volunteer fire brigades. ^g Data for the NT were not available.

Data source: table 9A.6.

The total property loss per person from fire in 1997-98 was highest in Tasmania (including all Tasmanian fire services) — \$48 per person — and lowest in the ACT (including all ACT fire services) — \$10 per person (figure 9.17).

Figure 9.18 Total property loss from structural fire, 1997-98



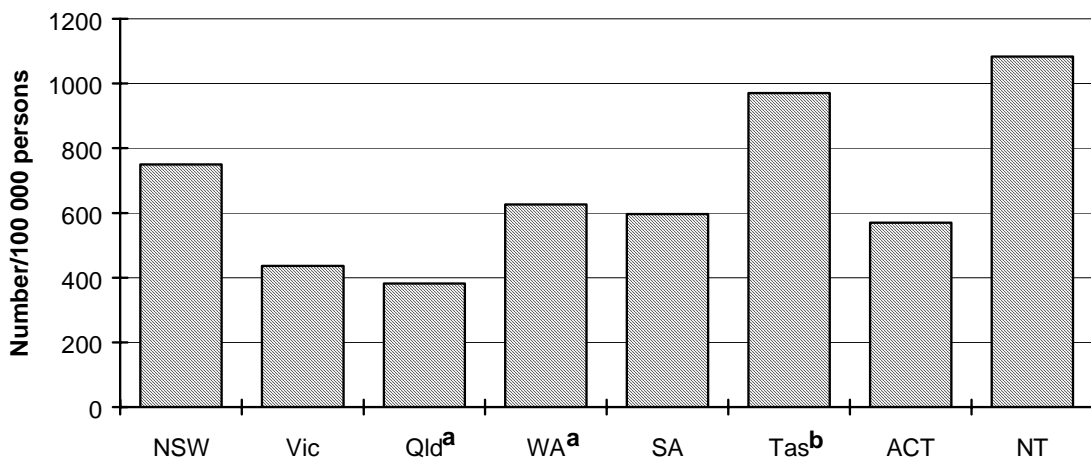
^a Includes NSW Fire Brigades only and excludes the NSW Rural Fire Service. ^b Includes Victorian Metropolitan Fire and Emergency Services Board and the Country Fire Authority. ^c Includes urban fire services only and excludes rural fire services. ^d Includes both urban fire brigades and rural volunteer fire brigades. ^e Data for the NT were not available.

Data source: table 9A.7.

The total number of fire incidents is an indicator of the effect of fire on the environment. The information on total fire incidents for Queensland and WA only includes urban fire services, so the results across jurisdictions are not strictly comparable.

The total number of fire incidents per 100 000 persons in 1997-98 was highest in the NT (including all NT fire services) — 1083 fire incidents per 100 000 persons — and lowest in Queensland (urban fire services only) — 382 fire incidents per 100 000 persons (figure 9.19).

Figure 9.20 Total fire incidents, 1997-98



^a Includes urban fire services only and excludes rural fire services. ^b Includes both urban fire brigades and rural volunteer fire brigades.

Data source: table 9A.8.

Prevention

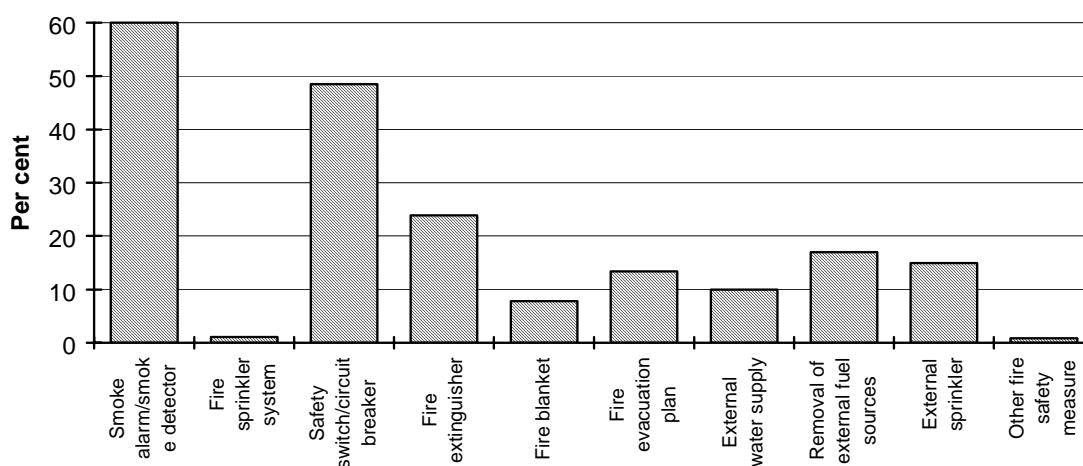
Indicators of fire prevention focus on the level of fire safe practices in the community. The 1998 ABS Population Survey Monitor for the May and August quarters supplied data on household fire safety measures installed or followed at a national level. The precision of survey estimates depends on the survey sample size and the sample estimate. Larger sample sizes result in higher precision, while smaller sample sizes result in lower precision. Further, higher estimate proportions have more precision than that of lower estimate proportions. Consequently, caution should be used when interpreting small differences in results. An approximate guide to the size of the allowance that should be made is outlined in attachment 9A.

Household fire safety measures included operational smoke alarms or detectors, sprinkler systems, safety switches, fire extinguishers, fire blankets, fire evacuation

plans, external water supplies, removal of external fuel sources, external sprinklers and other fire safety measures.

Nationally 83 per cent of total households had installed or followed a fire safety measure in 1998. Of those households with a fire safety measure installed, 60 per cent had a smoke alarm or detector, 49 per cent had a safety switch or circuit breaker and 24 per cent had a fire extinguisher. Only 13 per cent of households had a fire evacuation plan (figure 9.21).

Figure 9.22 **Households with a fire safety measure, by fire safety measure installed or followed, 1998^a**



^a Caution should be used where there are small differences in the results, which are affected by sample and estimate size (see attachment 9A).

Data source: table 9A.9.

Preparedness

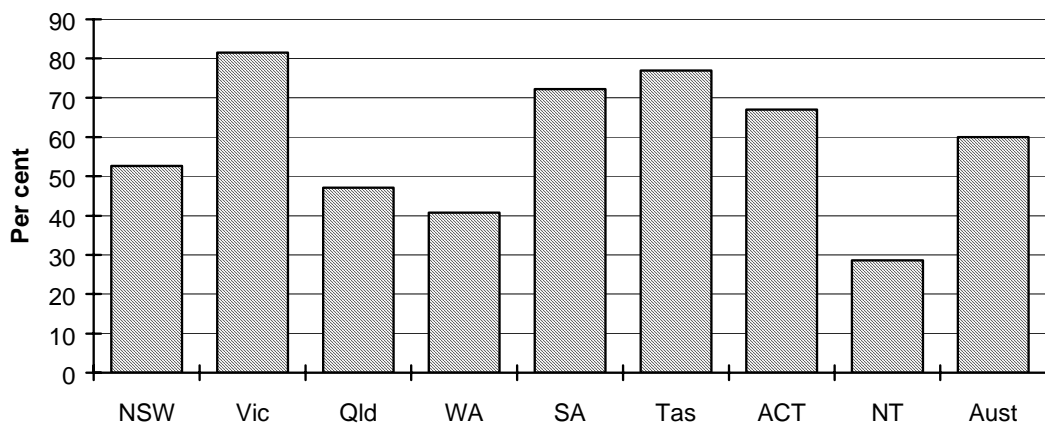
Preparedness relates to both the community and the fire service. The preparedness of the community can be reported as (a) the level of community training in fire responsiveness and (b) the installation of fire safety equipment. The preparedness of the fire service relates to its level of contingent capacity (including competency of personnel and appropriateness of equipment), and the matching of resources with potential risks. Fire services also need to allow for seasonal influences (in drought years for example) and population variations (in holiday destinations for example).

This chapter focuses on the level of preparedness of the community in terms of the proportion of residential buildings and commercial buildings with fire safety equipment and systems. Data were available from the 1998 ABS Population Survey Monitor for the May and August quarters for the proportion of household dwellings

with fire safety equipment. This information reflects the diverse legislative fire protection requirements across jurisdictions outlined in Section 9.5. However, as more accurate, full year Population Survey Monitor data are not yet available, these results may differ from other state based surveys.

Nationally 60 per cent of households had installed an operational smoke alarm or smoke detector. This proportion was highest in Victoria (81.5 per cent) and lowest in the NT (28.6 per cent) (figure 9.23).

Figure 9.24 **Households with an operational smoke alarm or smoke detector installed, 1998^a**



^a Caution should be used where there are small differences in the results, which are affected by sample and estimate size. Attachment 9A provides details of the sample size. These results may differ from other, state based surveys (such as, for example, those conducted in Queensland).

Data source: table 9A.10.

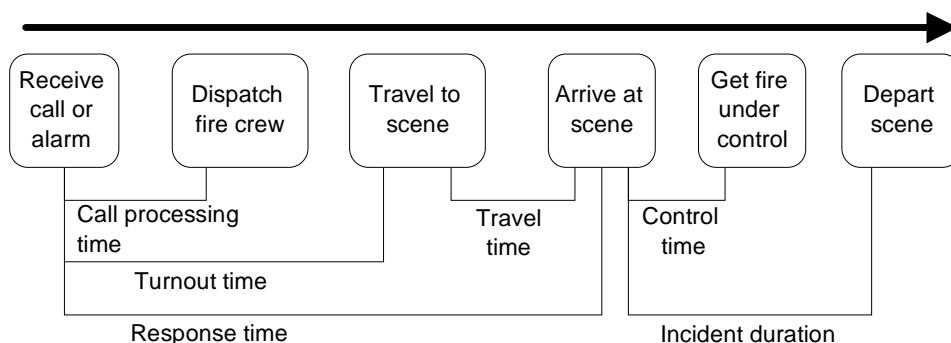
Response

Response times and containment of structural fires (to the object or room of origin) are indicators of the effectiveness of fire services in terms of their ability to respond.

The response time is defined as the interval between the receipt of the call at the dispatch centre and the arrival of the vehicle at the scene (that is, when the vehicle is stationary and the handbrake is applied). This and other intervals are illustrated in figure 9.25.

Response times are provided on a jurisdictional basis, so are not agency specific. This is consistent with information provided for other indicators in this chapter.

Figure 9.26 Response time points and indicators

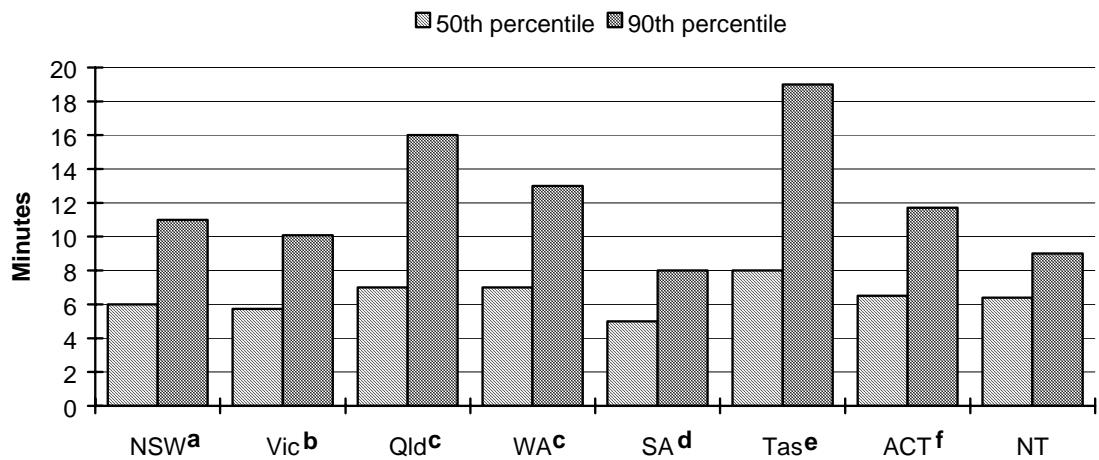


The information provided for response times and containment of fires for NSW, Queensland, WA, SA and the ACT only includes urban fire services. Therefore, the results are indicative only of the performance of the agency reported, and not of all fire services within each jurisdiction. As a result, performance is not strictly comparable across jurisdictions and the results should be treated with caution.

Nationally, the average response times in 1997-98 were 6 minutes at the 50th percentile and 12 minutes at the 90th percentile. The 50th percentile response time refers to the time within which 50 per cent of the first fire resources arriving at the scene actually responded. The 50th percentile response time in 1997-98 was highest in Tasmania (including all Tasmanian fire services) at 8 minutes and lowest in SA (including the SA metropolitan fire service only) at 5 minutes (figure 9.27).

The 90th percentile response time refers to the time within which 90 per cent of the first fire resources arriving at the scene actually responded. The 90th percentile response time in 1997-98 was highest in Tasmania (including all Tasmanian fire services) at 19 minutes and lowest in SA (for the SA metropolitan fire service only) at 8 minutes (figure 9.28).

Figure 9.29 Response times, 1997-98

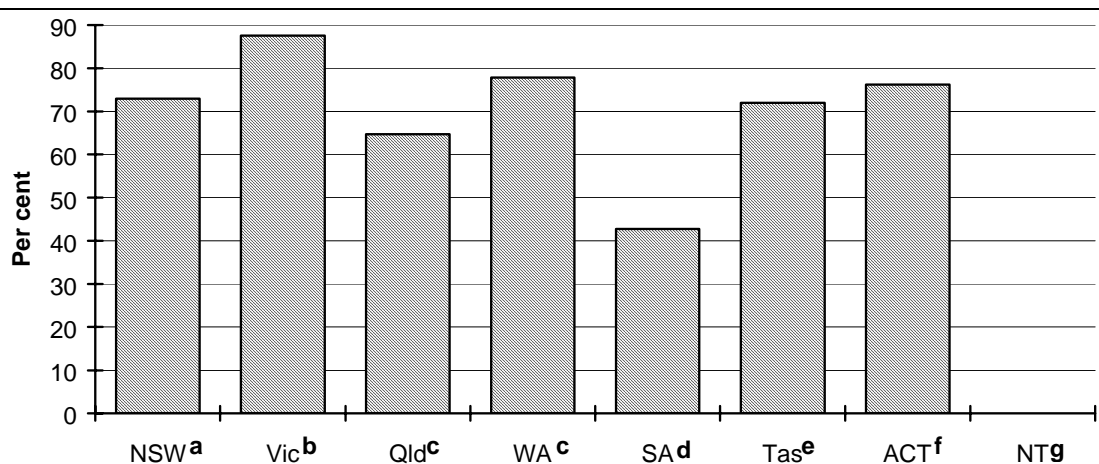


^a Includes NSW Fire Brigades only and excludes the NSW Rural Fire Service. NSW Fire Brigades respond to calls throughout the State, in urban and regional communities. The 90th percentile response time for the greater Sydney area was within 10 minutes. ^b Includes both the Victorian Metropolitan Fire and Emergency Services Board (Melbourne only) and the Country Fire Authority. ^c Includes urban fire services only and excludes rural fire services. ^d Includes SA Metropolitan Fire Service only and excludes SA Country Fire Service. ^e Includes both urban fire brigades and rural volunteer fire brigades. ^f Includes ACT Fire Brigade only and excludes ACT Bush Fire Service.

Data source: table 9A.11.

The response time is interlinked with the proportion of structural fires contained to the object or room of origin. This proportion was highest in Victoria (including the metropolitan service only) at 88 per cent and lowest in SA (including the SA metropolitan fire service only) at 43 per cent (figure 9.30).

Figure 9.31 Structural fires contained to the object/room of origin, 1997-98^a



^a Includes NSW Fire Brigades only and excludes the NSW Rural Fire Service. ^b Includes Victorian Metropolitan Fire and Emergency Services Board only and excludes the Country Fire Authority. ^c Includes urban fire services only and excludes rural fire services. ^d Includes SA Metropolitan Fire Service only and excludes SA Country Fire Service. ^e Includes both urban fire brigades and rural volunteer fire brigades. ^f Includes ACT Fire Brigade only and excludes ACT Bush Fire Service. ^g Data for the NT were not available.

Data source: table 9A.12.

Recovery

Recovery refers to the effectiveness of fire service strategies in both returning agencies to a state of preparedness after emergency situations, and supporting communities in their reconstruction of physical infrastructure and restoration of emotional, social, economic and physical wellbeing. These strategies include restoration of essential services, counselling programs, temporary housing, long term medical care and public health and safety information. Indicators of effectiveness in terms of recovery are yet to be developed.

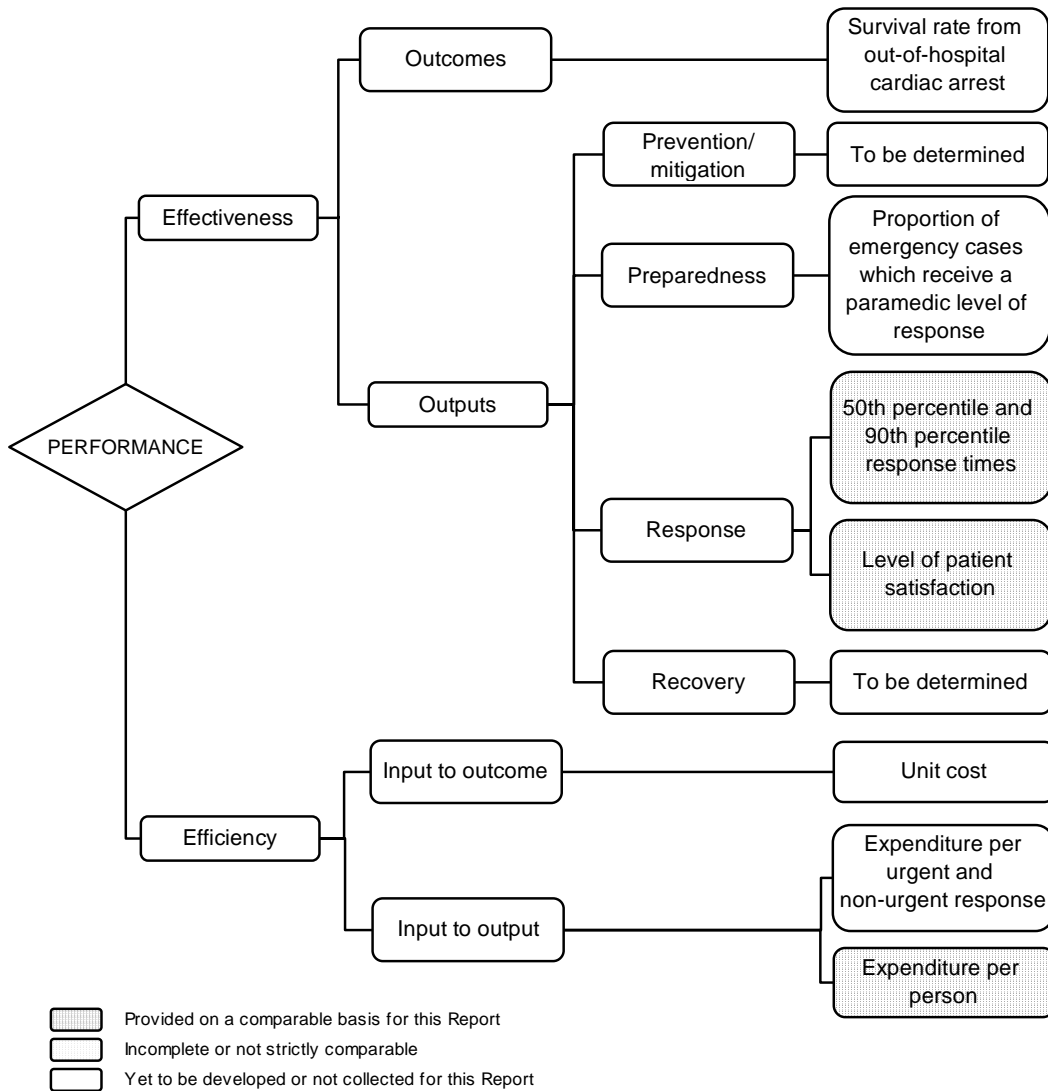
Efficiency

An indicator of efficiency is government inputs per person in the population. Other indicators are yet to be developed. Information on the level of fire expenditure per person is reported for 1997-98. This indicator may be influenced by such factors as geographic dispersion and the number of false reports. The highest level of fire expenditure per person in 1997-98 was in the NT (\$99 per person) and the lowest level was in WA (\$42 per person). Expenditure for the ACT includes expenditure on the ACT Fire Brigade, ACT Bushfire Service, ACT Emergency Service and ACT Ambulance Service (figure 9.32).

9.6 Key performance indicator results — ambulance

An indicator framework for ambulance services (figure 9.33) has also been developed from the generic framework for all emergency services.

Figure 9.34 Performance indicators for ambulance services



Effectiveness

Outcomes

The survival rate from out-of-hospital cardiac arrest is a key measure of the outcomes achieved by ambulance services. No data were available for this indicator for this Report.

Prevention

Prevention focuses on the extent to which community education programs improve the health and safety in the community — for example, the effectiveness of first aid training courses. The role of ambulance services in the prevention of medical emergencies differs between jurisdictions, so indicators of effectiveness in terms of prevention are yet to be developed.

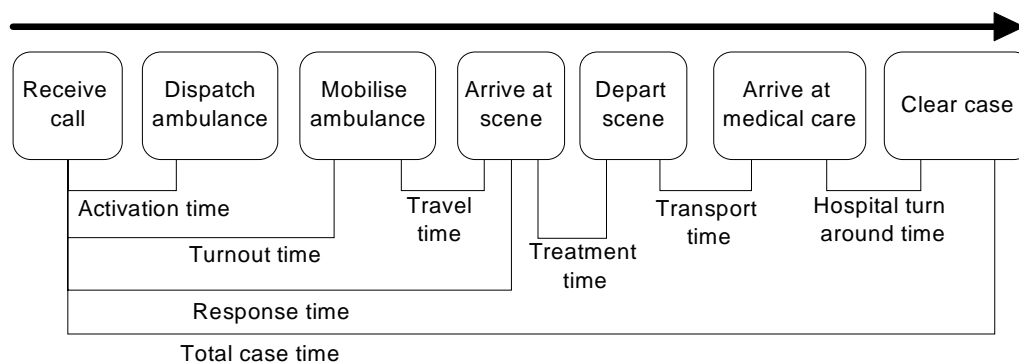
Preparedness

The proportion of emergency cases which receive a paramedic level of response is an indicator of the preparedness of ambulance services. It indicates the degree to which ambulance services are capable of dispatching paramedics to a medical emergency.

Response

The response time is defined as the time taken between the initial receipt of the call for an emergency ambulance to the ambulance's arrival at the scene of the emergency (figure 9.35).

Figure 9.36 Response time points and indicators



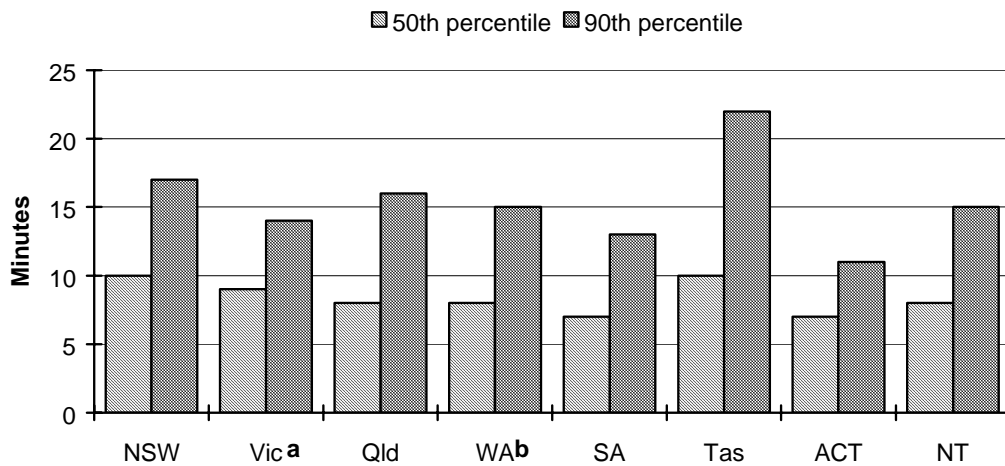
Responses are categorised by an assessment of the severity of the medical problem. These categories are:

- code I — responses to potentially life threatening situations using warning devices; and
- code II — responses to acutely ill patients (not in life threatening situations) where attendance is necessary but no warning devices are used.

Location can be metropolitan, urban or rural. The level of responsiveness is reported as the times during which 50 per cent and 90 per cent of first responding ambulance resources actually responded in code I situations. Data for Victoria and WA only included metropolitan ambulance services. Response times can be affected by factors such as the dispersion of the population. Information is also reported on the level of patient satisfaction and the level of community satisfaction at a national level.

In 1997-98, the 50th percentile response time — the time within which 50 per cent of first ambulance resources actually responded — was highest in Tasmania and NSW at 10 minutes, and lowest in the ACT and SA at 7 minutes (figure 9.37). The 90th percentile response time in 1997-98 was highest in Tasmania at 22 minutes, and lowest in the ACT at 11 minutes (figure 9.38).

Figure 9.39 Response times, 1997-98



^a Response times for Victoria included the Metropolitan Ambulance Service only. The Metropolitan Ambulance Service includes highly populated rural and semi-rural areas. ^b Includes metropolitan ambulance services only and excludes rural ambulance services.

Data source: table 9A.16.

Nationally 9 per cent of the population surveyed in 1998 had used an ambulance in the previous 12 months (ABS 1998). Of persons who had used an ambulance service, 90.2 per cent were either very satisfied or satisfied (69.2 per cent and 21.0 per cent respectively) (table 9A.17). However, of persons within the community who had not used an ambulance service, 70.1 per cent were either very satisfied or satisfied (32.0 per cent and 38.1 per cent respectively), a further 9.9 per cent were neither satisfied nor dissatisfied, and 13.9 per cent did not know (table 9A.18).

Recovery

Indicators of effectiveness expressed in terms of recovery are yet to be determined.

Efficiency

Indicators of efficiency include government inputs per person in the population and government inputs per output. The main efficiency indicators for ambulance services are ambulance expenditure per person and ambulance expenditure per urgent and non-urgent response. Information for 1997-98 is reported on the level of ambulance expenditure per person: expenditure per person was highest in the NT (\$46 per person) and lowest in WA and SA (\$24 per person) (figure 9.40).

9.7 Jurisdictions' comments

This section provides comments from each jurisdiction on the services covered in this chapter. Appendix A contains detailed statistics and short profiles on each State and Territory, which may assist in interpreting the performance indicators presented in this chapter. The information covers aspects such as age profile; geographic distribution of the population; income levels; education levels; tenure of dwellings; and cultural heritage (such as aboriginality and ethnicity).

New South Wales Government comments

“ The New South Wales Government welcomes the opportunity to report on the activities and performance of the emergency services. It is recognised that the community has an inherent belief that in times of need, the emergency services will be suitably equipped and trained to respond to any event that may be encountered. The process of benchmarking performance against other jurisdictions is one means by which emergency services can gauge service delivery. This ensures that performance standards are at optimum levels which is paramount to the success of any organisation and even more relevant when public funding is the prime source of an organisation’s revenue.

The NSW Government in its commitment to developing an efficient and responsive public sector has initiated and participated in a number of performance reporting projects. These projects provide a mechanism for encouraging continuous improvement in government service delivery.

Jurisdictional fire data has been presented for the first time in this 1999 Report. It should be noted however, that there are differences in the collection, validation and reporting of performance information between the States and Territories that limit the degree to which simple comparisons can be made. NSW continues to work on the development and refinement of key performance measures for emergency management. Initiatives to improve service delivery through collaborative planning (including community participation) and whole of government actions in NSW provide further reasons to promote performance measurement at a jurisdictional level. There is a challenge however, to ensure meaningfulness of these performance indicators. Another challenge is to adequately reflect differing contexts, roles and performance goals. For instance, conditions, hazards and intervention approaches differ across NSW. Rural and regional NSW has different characteristics to urban areas and these differences should be reflected in service planning, delivery and performance measurement.

In reviewing the delivery of emergency medical services the Ambulance Service of NSW is cognisant of the need to standardise the performance measures. The newly developed key performance indicators, included in this report, are adequate means by which standard benchmarking can be achieved. It is recognised that at present there are some limitations in the availability of data for the Ambulance Service of New South Wales in this new format. These limitations hinder to some degree the ability to accurately benchmark against other Emergency Services. The Service will overcome these limitations in future reporting cycles through a number of quality initiatives currently in progress.

”

Victorian Government comments

“ As demonstrated by the comparative information presented in this chapter, Victorian fire services continue to deliver efficient and effective services to the community. Services range from fire prevention and suppression to others which utilise similar skills and resources, such as hazardous materials incidents and road and industrial rescue. Victoria’s relatively small size and a fairly urbanised population allow the benefits of economies of scale to be reaped. In rural areas, a huge volunteer base enables the Country Fire Authority (CFA) to provide service at a relatively low cost.

Budget restrictions have been imposed on the fire services for several years, although the CFA has been granted increases for targeted upgrading of key services to outer metropolitan growth corridors and improved aerial resources for wildfire suppression.

Prevention/preparedness and partnership programs have played an important role. The domestic fire environment in Victoria has benefited by legislation making smoke alarms compulsory in all dwellings. Householder bushfire safety campaigns conducted by the CFA continue to contribute to behaviour change in the high risk urban–bushland interface zone, whereby householders learn how to save their own houses and their lives. Partnerships are also formed with industry including the formation of industry fire brigades, initially in the forestry industry.

A major expansion of ambulance services in Melbourne will be implemented by 2001 as part of a three year strategy to address the continued growth in demand for emergency ambulance services. The five separate rural ambulance services are being reorganised to create a single rural service from 1 March 1999. This will enhance the efficiency and effectiveness of service delivery through strengthened management and support functions, administrative economies, increased focus on timeliness and quality of clinical services, and increased operational consistency.

Ambulance legislation is being reviewed, including an examination of restrictions on competition under National Competition Policy requirements, with a view to legislative change in 1999.

A project to develop a Victorian ambulance clinical information system has commenced. It will improve the efficiency of data entry and exchange, and will also provide summary data to a recently developed data warehouse for linkage with hospital data, and thus facilitate clinical research on patient outcomes. It will also strengthen the evidence base of ambulance clinical practice, clinical audit, training needs analysis and operational protocol review processes.

Ambulance education and training has been outsourced to the mainstream education sector and the training of ambulance paramedics will move to a pre-employment format during 2000.

Two Victorian ambulance services have been the first in Australia to achieve external quality accreditation under the ISO structure.

”

Queensland Government comments

“

Queensland, one of Australia's most decentralised States, is subject to a wide range of threats. High population densities and growth rates along the coast and in the south east, geographically isolated communities and a large mobile population all create service delivery challenges for emergency services. Innovative and flexible service delivery models and work practices continue to be a priority to ensure the delivery of accessible and available emergency services to such a decentralised population.

The potential magnitude of disasters and incidents in Queensland compared to other States imposes a heavy reliance on community volunteer involvement and self help as the most effective way of minimising community disruption. The delivery of fire and ambulance services in rural and remote areas is supported by 44 466 rural fire volunteers (through their involvement in 1628 rural fire brigades) and 373 ambulance honoraries (ambulance volunteers) respectively. A unique network of 164 community based local ambulance committees supports the delivery of ambulance services. Maintaining and enhancing that involvement and increasing the focus on public education and preventative strategies are key issues for the fire and ambulance services in both current and future environments.

Recent developments

Both Queensland's fire and ambulance services have placed an increased emphasis on prevention strategies. The Queensland Ambulance Service recently launched the innovative CPR 2000 initiative in conjunction with the Australian Resuscitation Council and Queensland Health. The aim is to have 25 per cent of the population with resuscitation skills by the year 2000.

The Queensland Fire and Rescue Authority has expanded its fire safety community education programs, contributing to a significant decline in the number of fire deaths over recent years.

The implementation of the computer aided dispatch system for both fire and ambulance services in Brisbane will significantly improve call-taking and dispatch processes over much of South East Queensland.

The Queensland Ambulance Service was one of the first ambulance services in Australia to launch a formal program for the maintenance of professional standards — the Clinical Quality Improvement Program — aimed at maintaining and improving the general quality of clinical performance. It awards Certificates of Clinical Practice to officers who show steady improvement in their overall ability.

Both the fire and ambulance authorities have undertaken research to understand more about their customer needs and expectations through the conduct of detailed customer/community surveys. This information has been used to assist the development of appropriate service delivery strategies and standards.

”

Western Australian Government comments

“ WA has recently passed the *Fire and Emergency Services Authority of WA Act 1998*. The Act will be proclaimed on 1 January 1999 and formally brings together the Bush Fire Service, Fire and Rescue Service and the State Emergency Service. In addition, the Emergency Management Unit, which is responsible for developing the State’s emergency management framework and providing support to the State Emergency Management Advisory Committee, will be transferred to the Fire and Emergency Services Authority in the near future.

The Fire and Rescue Service has achieved a strategic shift to a greater focus on prevention in 1998. In January, an Enterprise Bargaining Agreement was certified between the service and the United Firefighters Union of WA. Part of the foundation of this agreement was the implementation of prevention based initiatives through the concept of sectorisation, which divides a station’s response area into geographic and demographic areas. As a result, the Community Risk Management program and resource package was developed and implemented

The Fire and Emergency Services Authority is currently developing its Strategic Direction and associated performance measures. This chapter has been taken into consideration when discussing our measures.

We believe the development of this Report has provided WA with the ability to look at the performance of our fire services in comparison with those in other States and Territories. The cooperation and support provided to the Committee by the Australasian Fire Authorities Council has provided more specialised input into defining the context of and standardising the collection of the data.

”

South Australian Government comments

Structure

“ The emergency services agencies (ambulance, metropolitan and country fire and state emergency services) remain with the Justice portfolio, within the responsibility of the Minister for Police, Correctional Services and Emergency Services, with Cabinet responsibility vested in the Attorney-General.

An Emergency Services Administration Unit is now to be established to include the above services, with the exception of the SA Ambulance Service. This unit will facilitate coordination between the relevant services and, in the longer term, allow for increased administrative efficiencies across those services.

Funding

Legislation is now in place for the Emergency Services Levy, which will apply to households, vehicles, etc. This fund will be utilised to support the agencies within the Emergency Services Administration Unit as above.

Performance standards

While SA incurs additional cost constraints on response times in some outlying areas of the State, the performance indicators for 1998 clearly show that the emergency services are performing at a commendable standard by comparison with similar services in other jurisdictions. When all sources of revenue are taken into account, including the contribution of the State Government towards the cost of service delivery, it is arguable that SA Ambulance Service is setting a benchmark in terms of the efficiency of services provided.

Within the relevant agencies, the process of reform is continuing, with greater coordination of budgets on an output basis, with operational performance indicators being further developed.

Infrastructure

The emergency services are integrally involved in the ongoing development of the common Computer Aided Dispatch system which is now at tender evaluation stage, and with the Government Radio Network which is now proceeding under Motorola and Telstra as principal contractors.

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Tasmanian Government comments

“ Key issues impacting on the provision of both fire and ambulance services in Tasmania include:

- the small and widely dispersed population affecting response times;
- the reliance on volunteers in rural and remote areas affecting turnout times;
- the lack of opportunity to realise economies of scale; and
- the State's rugged topography and variable weather.

Fire services

The relatively small population and small number of incidents ensure that single significant events or small changes in the number of incidents heavily influence incident statistics.

Tasmania Fire Service responds to fires in all metropolitan and rural areas of the State and in areas under the jurisdiction of Forestry Tasmania and the Parks and Wildlife Service in accordance with a formal protocol. The service bears the full cost of funding both the operating and capital costs of four career brigades and 240 widely dispersed volunteer brigades. Incidents from all brigades for both structural and vegetation fires and other emergencies are reported on.

An unusually hot dry summer resulted in more bushfires than in an average year, and the influence of longer colder winters than those experienced in other parts of Australia, and the consequent reliance on heating, are often reflected in increased structural fires, particularly in the residential sector. Despite its dispersed population, heavy reliance on volunteers and longer response times, structural losses were minimised in part due to the high penetration rate of residential smoke alarms.

Following the State election, Tasmania's Fire Service was moved to the portfolio responsibility of the Minister for Health and Human Services.

Ambulance services

Tasmania is the only State which provides free ambulance services to the general public and as a consequence there is a far greater reliance on government funding to supplement reduced income.

Expenditure on ambulance service provision in Tasmania does not include expenditure on operating an ambulance subscription scheme as do most other States; nor does it include expenditure on clinic and routine transport services and first aid education.

Tasmania continues to train a far greater proportion of its salaried ambulance personnel to ALS or paramedic level than most jurisdictions, with up to 70 per cent of all emergencies in Tasmania responded to at the paramedic level.

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Australian Capital Territory Government Comments

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The ACT is unique and fundamentally different to other jurisdictions in a number of aspects relevant to emergency management. The relatively small geographic size of the Territory, and the fact that the ACT has city/state functions and a high proportion of urban area all impact on the provision of emergency services. There are no other counterparts in Australia that provide both Territorial (State) and municipal functions in the one government structure. In addition the revenue raising capabilities of some other jurisdictions are greater and more flexible than those of the ACT.

In the ACT the focus in emergency management is on the delivery of outputs by cooperation of all emergency agencies in partnership with a prepared community. Output classes for the ACT Emergency Services Bureau are based on the national emergency management principles of prevention/mitigation, preparedness, response and recovery and are not individually identified against the specific emergency agency. The emergency management arrangements in the ACT reflect both territorial (state) and municipal funding arrangements in the budget of the ACT Emergency Services Bureau. The Bureau's Standards of Emergency Response are time and risk based, and the positioning of resources affects the impact of the multiple town centres, 'greenbelts' and Commonwealth assets of national importance.

The expenditure per person result for the ACT reflects the full accrual cost (excluding a capital charge) of the provision of emergency management activities, not just fire and ambulance services. As such, it incorporates costs associated with the provision of the Territory Emergency Service which are not reported by other jurisdictions. Similarly, some municipal (local government) costs associated with the provision of rural fire services are not reported by other jurisdictions but are included in the ACT figure.

Given the indication that the average annual increase in the over 70 years age group is the second highest for all States and Territory in the four years to 1996-97, the ACT has placed emphasis on a Community Liaison and Advisory Safety Project (CLASP) as part of a prevention strategy. This is a cooperative venture between the ACT Council on the Ageing, the ACT Ambulance Service, the ACT Fire Brigade and the Australian Federal Police. An independent evaluation survey in 1998 found that some 92 per cent of respondents agreed or strongly agreed that they felt more safe and secure as a result of the CLASP assessment.

Although the median dollar loss per structural fire was equal highest among the States/Territories, the total dollar loss per person from structural fire was the lowest. The ACT Fire Brigade continues to maintain preventative programs for fire education for school children and smoke alarms installation in residences to prevent or minimise the impact of fire in structures.

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Northern Territory Government comments

“ Ambulance services are not commented on in the NT Government comments section as St John Ambulance is an incorporated non-profit organisation under contract to the NT Government.

The NT Fire and Rescue Service (NTFRS) undertook a significant change in direction during 1998 with a distinct shift in its strategy to overcome fire when it changed its basic philosophy from suppression to prevention. The introduction of Fire Hazard Management Plans by all fire stations placed a greater emphasis on fire preventative measures throughout the Top End. Fire safety education has continued to play a significant role in the NTFRS strategic plan to reduce the number of fires and damage caused by fires. The possible introduction of a public education officer and member trained in Juvenile Fire Awareness and Intervention will assist fire fighting staff to ensure the community receives appropriate education in fire prevention.

Whilst ensuring emergency response capabilities are continually enhanced through the upgrading of vehicles and equipment, the development of a combined communications facility in 1999 will complement the upgraded equipment. This will ensure the NT community is provided with a world class emergency response service. The new facility will be a central communications facility for police, fire and St John Ambulance. A new Computer Aided Dispatch system will complement the NTFRS new alarm monitoring system and fire reporting program.

The development of a new telemetry based fire alarm monitoring system (NTFAST) was a major achievement for the NTFRS during 1998. This system is a first for Australia and will be installed throughout the NT by the end of the 1998-99 financial year. One of the major advantages of NTFAST over the land line systems used in other jurisdictions will be the reduction in false alarms caused by line faults.

The tyranny of distance remains the major obstacle facing the NTFRS. Rescue vehicles and fire fighting appliances are being upgraded at most country fire stations as part of the strategy to improve response times and provide more appropriate fire fighting and rescue resources in the rural areas of the NT.

The NTFRS will become a first responder organisation when it places defibrillators and resuscitators on fire appliances and rescue vehicles in the very near future. A number of operational members have been trained to the advanced first aid level and have also received training in the use of the defibrillator. The defibrillators and training have been provided through St John Ambulance NT. The NTFRS will provide a supporting role for St John Ambulance and provide a greater level of protection of the community and fire fighting personnel.

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