



Australian Government

Department of Health and Ageing

2003

National Health Disaster Management Capability Audit

Conducted by the
Australian Health Disaster Management
Policy Committee

Health Emergency Management Branch
Office of Health Protection

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INTERIM DISASTER MANAGEMENT CAPABILITY REPORT

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Executive Summary

Clinical capacity

Australia has approximately 73,000 acute care beds but there is limited surge capacity for a health emergency. A maximum of 7,400 beds surge beds could be provided but there would be no more than 3,000 in any jurisdiction.

The number of intensive care beds reported in this audit is less than that reported in the ANZICS data that were used for the previous report to the NCTC on 11 Dec 2003. The audit reported a total of 1,394 beds, 77% of the ANZICS report of 1,803. If the number of ICU beds reported in the audit process is correct, the capacity reported in the previous paper to NCTC is overstated by 23%.

In Australia's public hospitals there are 540 isolation beds within negative pressure rooms.¹ Tasmania (14) and NSW (250) reported all negative pressure rooms have been tested. There are a further 32 isolation beds in private facilities: 22 in WA that are in negative pressure rooms and 10 in Qld without negative pressure facilities.

There are 2039 ventilators used to assist breathing available in Australia. The Defence force has a limited number of ventilators.

The survey did not reveal a clear indication of mortuary capacity in the country, mostly because of limitations in the definition in the question. Approximately 1,200 bodies can be held for examination in NSW, Qld and South Australia. Some jurisdictions including Western Australia referred to off-site or commercial facilities and contracted refrigerator space being able to be sourced.

Interestingly, there were more emergency road ambulances reported than there are crews to operate them. There is a maximum of 1,635 crews for 2,131 emergency road ambulances. 5% of ambulances are equipped for a specialised CBR event, but there are none in the ACT or Tasmania. No information on CBR equipped vehicles was provided by SA and Qld.

Chemical and radiological response

The capacity to respond to a chemical or radiological event is not well standardised across the country. While NSW has a specialised team in each of 18 area health services, Victoria reported one fully equipped vehicle for radiation incidents and Hazmat. Tasmania and ACT reported 1 specialised response unit each but there are no specialised services available in Qld, WA or South Australia.

There are 44 decontamination facilities within the country, but none reported in Queensland or Tasmania². There are 22 in Victoria, 12 in NSW, 4 in each of SA and

¹ During SARS Hong Kong Department of health reported 812 people in hospital, inadequate number of neg pressure facilities

² Tas reported Nil, Qld left blank cell – ck with Qld

WA, and 1 in each territory (ACT and NT). While the defence force reported limited capability in hospitals they did report that the ADF possesses one deployable decontamination facility that may be available on request. This capability is well rehearsed and forms part of the ADF Counter Terrorist response.

Recommendations

- Improve chemical and radiological response capacity in jurisdictions with limited capability (Qld, WA and SA)
- All jurisdictions require CBR equipment on road ambulances
- Investigate disparity between number of ambulance road crews and vehicles
- Investigate mortuary capacity
- Investigate and plan alternate measures such as field hospitals for surge capacity
- Consider the number of respiratory ventilators and staff able to support additional ventilation capacity.

Part 1 Organisational arrangements

Disaster or Incident Committees

All States and Territories have health disaster or major incident committees.

Australian Capital Territory

The ACT has the Emergency Management Act 1999, which provides the legislative basis for all aspects of emergency management within the ACT. The ACT Emergency Committee monitors the scope of the Emergency Plan in relation to each type of emergency. This plan has a number of sub-plans, which includes the Health Emergency Management Sub-plan.

ACT also has Health sub-committee that is responsible for the Health Emergency Management sub-plan. This sub-committee meets on a regular basis to discuss health related issues.

NSW

NSW Health Disaster Advisory Committee.

This is the peak health emergency management committee in NSW, convened under specific legislation, the (NSW) State Emergency Rescue Management (SERM) Act (as amended 1989).

Dr David Cooper, the Director of the NSW Health Counter Disaster Unit (Medical Controller) chairs the committee.

Other members of the committee include the State Health Services Functional Area Co-ordinator (State HSFAC), the Director of Health Protection (Public Health Controller), the Director of the Centre for Mental Health (Mental Health Controller), the Deputy Director Health Communications (Communications Controller), the Ambulance Service of NSW (Ambulance Controller), the NSW Health Chief Pharmacist, the Australian Red Cross, St. John Ambulance and the Department of Community Services.

It should be noted that Dr Michael Flynn is the NSW State HSFAC, appointed by the Governor of NSW, and is the key position holder in health disaster management in NSW (under the SERM Act (1989)).

The committee reports (through the State HSFAC) to the State Emergency Management Committee and the NSW Health Chief Health Officer.

The NSW Health Counter Disaster Unit (CDU) develops the policy to be reviewed by the peak committees and undertakes NSW Health and Ambulance Service of NSW emergency management (major incident/disaster) operations.

Victoria

Under the Victorian Department of Human Services (DHS) State Plan for Managing Emergencies and Critical Events the Executive Director of Operations chairs a committee of Executive Directors and responsible officers from Operations, Metropolitan and Rural Health and Aged Care Divisions. These include representatives from pre hospital (ambulance and medical coordination), public health, hospital policy and state emergency

recovery units. The committee provides for the management of emergencies and information to government in a time of crisis. The plan supports these operations by providing mechanisms for gathering and providing information from/to the health sector and community.

Various divisions have prime responsibility for emergency management, planning and recovery issues within their core business operations i.e. Recovery, infectious disease, food contamination etc. The committee is only activated for events requiring a large scale response from the Department.

The chairperson of the departmental committee represents DHS on, and liaises with, the Central Government Response Committee (CGRC) and the State Emergency Response Coordination Center when activated. It also provides advice to the CGRC and State Emergency Committee of Cabinet.

South Australia

Department of Human Services: -

- Emergency Management Committee,
- Health & Medical Response Committee,
- Health & Medical Prevention & Preparedness Sub-Committee

Tasmania

Tasmania has both a major incident committee and a specialist emergency medical committee. The context for these is as follows:

- Minister for Police and Public Safety
- State Disaster Committee/Executive
 - (major incident Committee)
- State Emergency Medical Committee
 - (specialist advisory body)

Western Australia

Emergency Management falls under the peak State Emergency Management Committee (chaired by Fire & Emergency Services), of which the DG, Health is a member. WA currently does not have Emergency Management legislation, although the State Cabinet has approved drafting of this legislation in 2004.

From the health perspective there are three main committees

State Health Disaster Management Committee (supports WestPlan – Health)

State Human Epidemic Emergency Management Committee (supports WestPlan – Human Epidemic)

Metropolitan Hospitals Disaster Planning Committee (operational committee from which the Business Continuity Plan originated, which activates the major metropolitan hospitals in the advent of an emergency, eg Bali bomb incident)

Northern Territory

Within the Department of Health and Community Services, Local and Regional Health

Services Counter Disaster Groups report to the respective Local and Regional Counter Disaster Planning Committees. (There are 31 Local Districts and 7 Regions in the (NT)).

Queensland

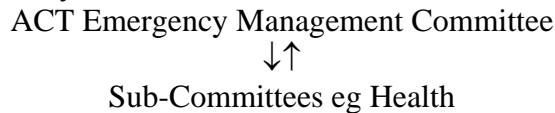
The Queensland Emergency Medical System Advisory Committee (QEMSAC) is an interdepartmental committee with representation from all agencies involved in EMS delivery. It is chaired by the General Manager Health Services who is also the State Medical Controller. The committee is replicated at Zonal ,district and local level s. QEMS provides advice to the relevant Directors-General and Ministers on Emergency Medical System matters which includes Major Event and Disaster Planning.

Defence

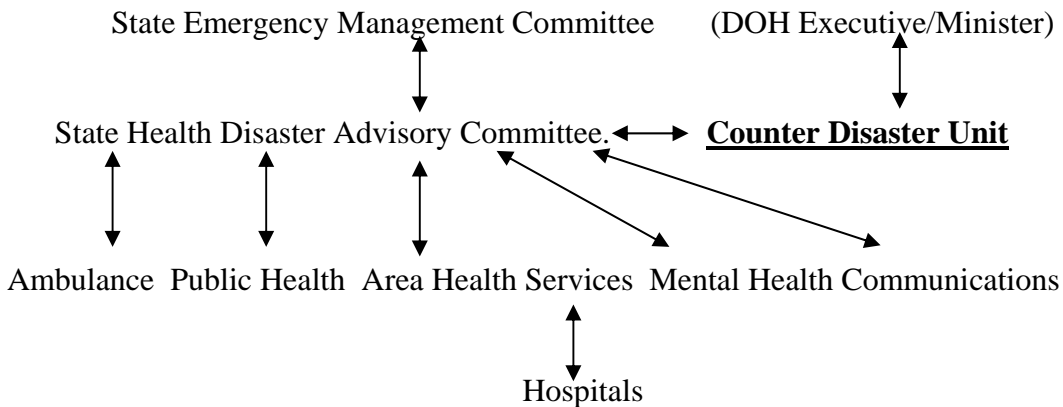
While the ADF does not have a dedicated disaster management committee per se, our extant command and control structures will be adapted to coordinate the ADF response to incidents. Once a commitment of ADF support is made, it is likely that an operational commander will be tasked to coordinate the response via a designated Task Force. Specialist health input will be provided to these headquarters at both national and state level.

Relationship with other disaster committees.

Australian Capital Territory



NSW



The NSW Health Counter Disaster Unit (CDU) generates policy and training and coordinates health disaster response.

Policy generated by the CDU is reviewed by the Advisory Committee and submitted through the CEO Ambulance Service to the Chief Health Officer for approval.

The State Emergency Management Committee is the overarching group reporting to the Minister for Emergency Services and the Premier and this arrangement ensures a whole of government approach to planning and disaster response.

Victoria

The Executive Director Operations and the Chief Health Officer (Public Health) represent DHS on the Victoria Emergency Management Council and its Coordination Group.

The Council has a range of functional sub committees responsible for various aspects of planning under the Emergency Management Manual Victoria. DHS is represented as appropriate on these committees. Particular note is made of the State CBR Committee, and the Health and Medical Functional sub committee, chaired by the Chief Medical Coordinator, Office of Medical Displan.

South Australia

State Disaster Committee: -

Health & Medical Functional Services, is one of the Functional Services, under the State Disaster Plan.

Northern Territory

The Local and Regional Counter Disaster Planning Committees report to the NT Counter Disaster Council

Western Australia

The State Emergency Management Committee (SEMC) is supported by four functional Groups, on which health has membership on three:

Emergency Services Group (Director Disaster Preparedness and Management (DDPM))

Recovery Services Group (DDPM)

Public Information Group (Health Public Relations Officer)

(the fourth is Lifeline Services Group)

DDPM is also the Proxy for the DG Health on the SEMC Executive.

Queensland

The Director-General is a member of the Central Control Group of the State Counter disaster Organisation. At an operational level the Coordinator emergency Health Services is a member of the State Disaster Coordination Group. Health Service Districts are represented on Disaster district Control Groups. This operates in parallel to the QEMS arrangements and generally the same incumbents are on both committees.

Defence

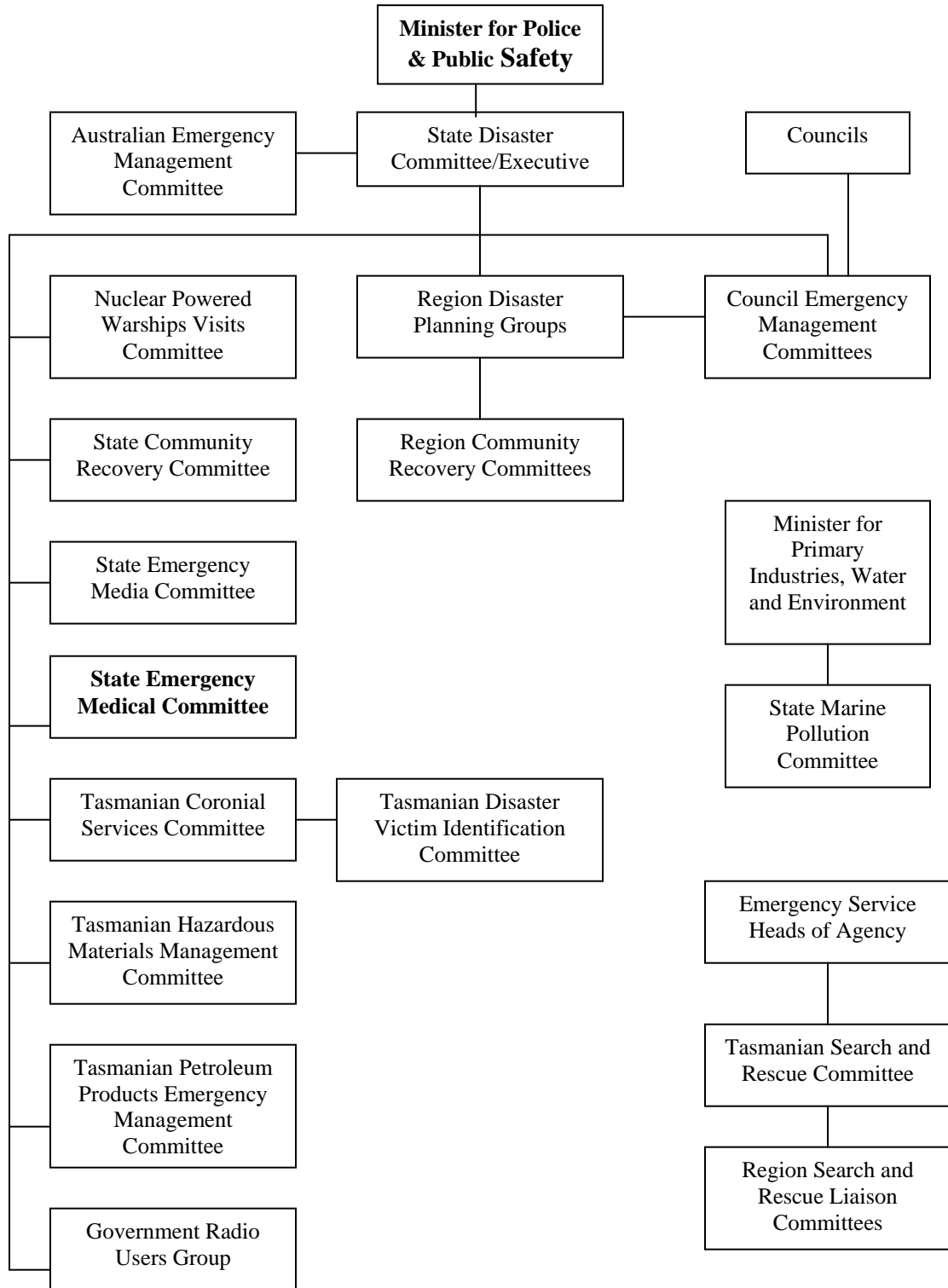
At national level, ADF has specialist health representation at AHDMPC and other Dept of Health and Aging and Attorney General's Dept committees. ADF Health has a close working relationship with EMA.

ADF Operational (non-health) elements have relationships with commonwealth agencies.

At state level, ADF elements have working relationships with some state bodies and membership of state Disaster Committees.

Tasmania

Tasmanian Emergency Management Committee structure



Relationship to normal emergency medicine system arrangements

Australian Capital Territory

Health subcommittee has representation from all relevant stakeholders.

NSW

The NSW Health emergency management (disaster) planning arrangements allow for notification of emergency departments and critical care services through Area Health Service Health Service Functional Area Co-ordinators (HSFAC's), by local or State means.

Area Health Services (AHS) within NSW are the key providers of clinical care to the community and each AHS has local arrangements to deal with emergencies of all types. This also applies to the key role that area health service public health units also undertake in regard to population health emergencies.

Incidents occurring within the jurisdiction of AHS's are communicated to the Area HSFAC primarily through ambulance or through State notification arrangements. Local emergency departments are then immediately notified.

When notified by local agencies, the Area HSFAC informs the State HSFAC in regard to the incident and updating of the incident status.

The (duty) State HSFAC updates the Area HSFAC, when notified of an incident (usually via the ambulance service) within their area health service. This particularly applies to an incident requiring cross-area or Statewide co-ordination. Notification trigger criteria are in place through the ambulance control centres located in 4 NSW divisions.

In the event of a large-scale incident or disaster, the duty State HSFAC would ordinarily activate HEALTHPLAN to CALLOUT status and commission the Health Services Disaster Control Centre, which is located at the Sydney Ambulance Centre at Redfern. This ensures close communication of all health and ambulance assets, with real time data available to controllers.

Activation of HEALTHPLAN, (under SERM) allows the State HSFAC to resume control of all NSW Health assets.

An incident management team is convened and Health and ambulance staff are allocated specific roles with regard to operations, planning and logistic support.

The State HSFAC/Area HSFAC's and Ambulance Controller work very closely during an acute incident to ensure that seamless patient allocation to hospitals occurs in a timely manner. This ensures the most appropriate distribution of patients based on their level of care requirements. For example, ordinarily, "RED and "ORANGE" triage patients would

be allocated to trauma centres, while “GREEN” patients would be transported to district level emergency departments.

The Medical Retrieval Unit co-ordinates air assets under the direction of the State HSFAC, once HEALTHPLAN is activated.

Depending on the size and scope of the emergency, a staged process can occur which allows the emergency departments to either partially or fully clear patients to accept disaster patients. Normal emergency processes such as triage and disaster victim medical records are implemented. Elective surgery would ordinarily be cancelled. Hospitals are still expected to treat other life threatening cases during a disaster and the status of these hospitals can be monitored through the Health Services Disaster Control Centre (HSDCC). Mental health and public health services will also be co-ordinated and activated, through deployment of field teams and liaison officers.

Victoria

Medical Displan is closely aligned with Ambulance and hospital preparedness, planning and response. It provides for a medical presence on an incident site to coordinate triage and transport, and commandeer resources (including Disaster Medical Teams) to the site. Concurrently hospitals and DHS are advised of the incident and consequent issues.

South Australia

It immediately moves responding hospitals to an increased level of activity. e.g. They commence re-calling staff, as per their hospital “Code Brown” DISPLAN.

Tasmania

Operationally, the Director of Emergency Services (Commissioner for Police) exercises control of emergency planning and operations through three Regional Disaster Planning Groups (RDPG). Health Disaster Planning in turn is carried out within this framework with the respective Southern, Northern and North Western Regional Medical Coordinators being members of the RDPGs. These officers also hold the appointment of Director of Medical Services at the Royal Hobart Hospital, Launceston General Hospital and North Western General Hospital. This ensures a close interface between regional planning and normal emergency medicine arrangements. Tasmanian Ambulance Service Officers also attend the RDPGs, again reflecting a close linkage with normal arrangements.

Northern Territory

Once activated, under the Health Counter Disaster arrangements, 2 group Leaders co-ordinate Medical and Public Health activities and responses.

Western Australia

The Metropolitan Hospitals Disaster Planning Committee, now a subcommittee of the State Health Disaster Management Committee, is composed of Emergency Department Physicians from all the tertiary hospitals. Planning is then taken back to individual hospitals so they can support the requirements of WestPlan – Health through the

provision of adequately trained medical teams.

In general, health disaster planning arrangements give guidelines on roles and responsibilities of designated positions within organisations. These arrangements operate at the Local, Regional and State levels and can all be activated depending on the scale of the disaster (that is, a graduated response).

Queensland

The Medevac or retrieval teams, based on hospital emergency departments are the building blocks on which out of hospital disaster responses are based. The teams consist of a doctor and nurse. The three major teaching hospitals would respond out of hospital on a daily basis either to a primary or a retrieval. Specialist teams such as pediatric, surgical or public health can be established.

The counter disaster arrangements build upon the seamless EMS system.

Defence

ADF health facilities have a very limited Emergency Medicine capability. Linkages to Disaster planning arrangements is therefore more principles based and utilised more in deployed health capabilities than in base locations.

Special Disaster Units

Special Disaster Units or arrangements exist in all states and territories.

Tasmania does not maintain a dedicated 'unit' as such to deal with health disasters due to resource limitations, scale and frequency of previous such events. Coordination and liaison has traditionally been through the position of Chief Medical Officer within the Tasmanian Department of Health and Human Services. This position has now been replaced by the position of Chief Health Officer who represents the Department's interests in this area at both State and National level. The Department of Health and Human Services has also recently established a dedicated position of Coordinator - Emergency Management as from 1 March 2003 with the role of providing whole of Agency liaison and coordination with respect to emergency management issues, working closely with the Director of Public Health, Chief Health Officer, Director of Hospitals and Ambulance Services and the Chair of the State Community Recovery Committee. Liaison also extends to key stakeholders external to the Agency.

Responsibilities of the Special Disaster Unit

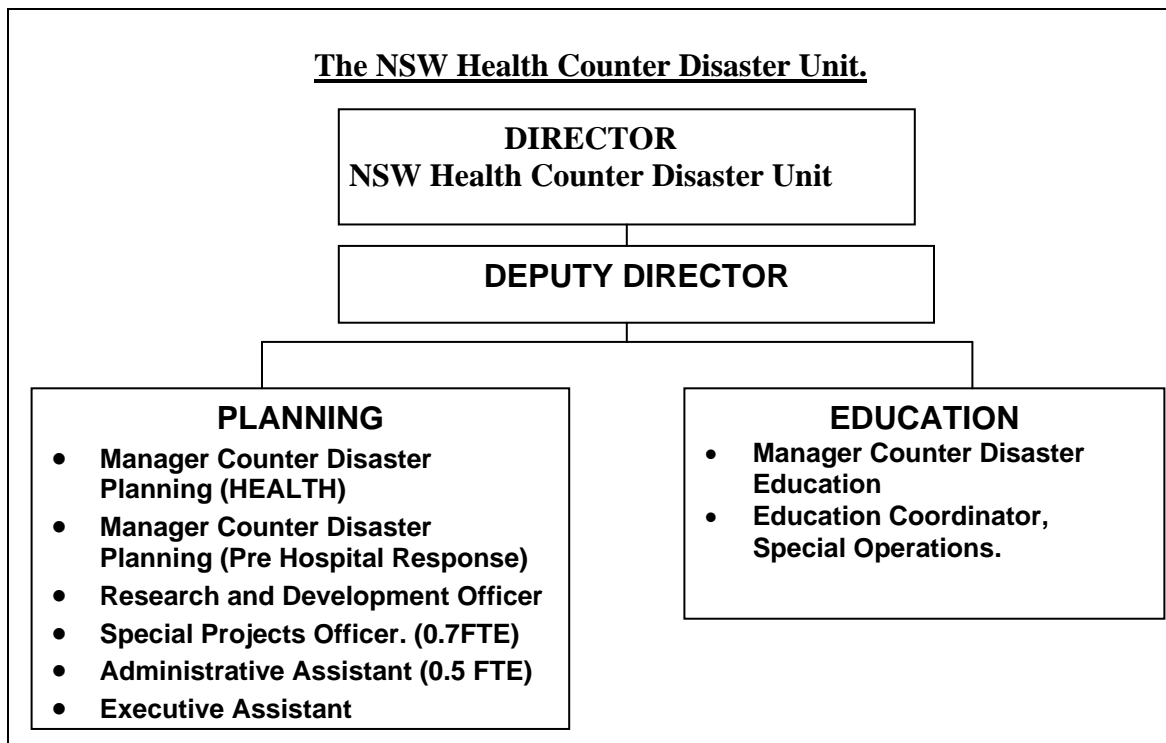
Australian Capital Territory

Communicable diseases control, environmental health and the office of the chief health officer have responsibilities in this area.

NSW

The NSW Health Counter Disaster Unit has several main aims:

1. Develop contingency plans for counter disaster management that support public health and safety;
2. Continue to provide advice and leadership to the health system and external agencies regarding the provision of health related emergency management policies, programs and procedures;
3. Ensure that state and local health services are able to respond to and recover from major incidents, disasters or terrorist attacks;
4. Ensure the appropriate activation of HEALTHPLAN to maximise public safety and survival;
5. Provide appropriate specialist education and training for key health personnel to enhance the health system's capacity to provide a credible response to major incidents, disasters or terrorist attack;
6. Ensure that response planning and education comply with relevant legislation³ and public health strategic direction⁴.



Victoria

- A coordination unit in DHS, which is responsible for maintaining and operationalising, the relevant DHS response to issues, which require whole of department coordination and management. The unit sits within the Operations Division with direct access to the DHS Emergency Management coordinator.
- The Recovery Unit also sits with the Operations Division.
- A CBR planning unit within Public Health has also been established.

³ State Emergency Rescue Management Act (1989) as amended

⁴ Public Health – Future Directions 2002 - 2007

- The Metropolitan Health and Aged Care Services Division has responsibility for policy development and implementation for pre-hospital and hospital response.
- Combined resources across DHS number approximately 20 personnel.

South Australia

A State Control Centre (SCC), Health & Medical Functional Services is activated and Co-ordinates and controls the response by Health Units/Hospitals. Staff are rostered on to cover: 1. *State Controller or Deputy Group*, 2. *Communications & Admin Group*, 3. *Pharmacy & Supply Group*, and 4. *Env Health & Communicable Diseases Group*.

Tasmania

Both the Director of Public Health and the Chief Health Officer undertake health disaster functions as part of their normal duties. In the case of the Director of Public Health, this member heads the Public and Environmental Health Branch and therefore has additional professional staff support available, if required. The Chief Health Officer works as a sole entity with minimal staff support and represents the Department of Health and Human Services at a number of National Committees, including the AHDMP. The Department of Health and Human Services' Coordinator - Emergency Management is 1.0 FTE located within the Department's Division of Corporate Services, Hobart. The position's objectives are:

- Ensure that the Department's obligations in the area of emergency and disaster planning and preparedness are met in an effective and coordinated manner.
- Liaise with relevant external Agencies involved in emergency and disaster management including Local, State and Commonwealth Government to ensure that the Department is adequately prepared for potential emergency events.
- Provide specialist advice to all areas of the Department that have responsibility for, or involvement in, service deliver or support functions during periods of emergency or disaster.

Northern Territory

There is no dedicated resource. Once the Counter Disaster plan is activated, the Medical Group leader co-ordinate response from Hospitals, Ambulance services, Air retrieval services, General practitioners and Remote Health services.

The Public Health Group Leader co-ordinates all responses related to Public health including disease control and environmental health.

Western Australia

The Directorate of Disaster Preparedness and Management comprises of 3.0 full time staff:

The State Health Coordinator is the Director General, DOH who has delegated this responsibility to the Director Disaster Preparedness and Management [0.5FTE]

Responsibilities:

1. chair and manage the activities of the State Health Disaster Management Committee;
2. ensure the preparation, testing and maintenance of the State Health Emergency Management Support Plan;
3. manage the state health emergency management function during health and other emergencies;
4. manage the operations of the State Health Operations Centre during emergencies
5. represent health agencies at SEMC and advise SEMC on health emergency management matters; and
6. provide overall direction for the control and management of emergencies caused by human epidemics.

The **Senior Policy Officer** is the only ‘full-time’ emergency management person whose everyday function is to ensure the preparedness of DOH to carry out its emergency management functions. This person is the link between the District/Local Health Coordinators, the DDPM and relevant Hazard Management Agency.

Responsibilities:

- (a) Maintain the State Health Operations Centre and assist with the management of the centre during operations;
- (b) on behalf of the DDPM maintains the State Health Emergency Management Support Plan;
- (c) activate, on behalf of the DDPM, responses to health emergency management situations and recommend emergency expenditure/resources to meet these responses;
- (d) assist with the functions of the DDPM;
- (e) provide advice/support to district/local health coordinators;
- (f) ensures liaison with the State Emergency Coordinator during emergencies;
- (g) as a member of the CBR Technical Group, be contactable on a 24 hour basis via emergency pager;
- (h) facilitate post incident analysis regarding DOH role in significant emergencies; and
- (i) facilitate training programs throughout the State including exercises.

The DPM Unit now has the following additional staff:

1. Senior Project Officer (0.5 FTE) – policy and plan development
2. Administrative Officer (1 FTE) – administrative and database development

Queensland

The Emergency Health Services Unit is responsible for carrying out the Chief Executives Emergency Management responsibilities. These include but are not restricted to the maintenance and implementation of the Queensland Health Disaster Plan, clinical coordination and retrieval services, health support to major events and VVIPs and the provision of a twenty four hour contact point on emergency health service matters.

Staffing consists of a Coordinator and Senior Project Officer located in Corporate Office adjacent to the Queensland health EOC. In addition a 0.5FTE Staff Specialist and Level 2 nurse are located in each of the three zones with specific responsibilities for clinical coordination.

Additional staff are made available to the unit as required.

The unit maintains a close relationship with the Operations Support Unit of the Queensland Ambulance Service.

Defence

ADF has no dedicated Disaster Management unit however Defence capabilities if tasked by CDF have the capacity to add value to a broad range of disaster scenarios.

Health Disaster Plan

Executive responsibility for health disaster planning policy

Australian Capital Territory

CHO Paul Dugdale

NSW

NSW Health Chief Health Officer and Chief Executive Officer Ambulance Service of NSW

Victoria

Executive Director of Operations has overall responsibility for the Departments emergency management preparedness. Specific responsibility for health sector disaster preparedness and planning rests jointly with the Executive Directors of the Metropolitan and Rural Health and Aged Care Divisions.

South Australia

The Executive Director, Clinical Systems. Who is also the State's Chief Health Officer and State Controller, Health & Medical Functional Services.

Tasmania

Disaster planning and management in Tasmania is coordinated by Tasmania Police, through the Tasmanian State Emergency Service. The Commissioner of Police Chairs the State Disaster Committee/Executive, and also holds the appointment of Director of Emergency Services. The Secretary, Department of Health and Human Services, as Head of Agency, has executive powers with respect to approval and endorsement of health planning policy in Tasmania. This power is exercised based on specialist advice from the Department's main advisors in this area, these being the Chief Health Officer,

Director of Public Health, Director - Hospitals and Ambulance Services (all three being Medical Practitioners), and the Coordinator - Emergency Management.

Northern Territory

NT Police , Fire Emergency Services in Conjunction with the Department of Health and Community Services.

Western Australia

The DDPM in conjunction with the Senior Policy Officer, Emergency Management is responsible for policy and plans. The Director General DOH is responsible for operations. This role in the first instance has been delegated to the DDPM.

Queensland

Policy – Chief Health Officer

Operations – General Manager Health Services

Defence

The responsibility for Health Disaster Management planning rests within the Defence Health Service Branch (DHSB) in Canberra. The Director General of Defence Health Service (DGDHS) is primarily represented in such planning by the Director of Strategic Operations and Plans. Health Planning at the strategic level will form part of the broader operational planning conducted on behalf of the CDF by Strategic Operations Division.

Once an operational headquarters is tasked to coordinate an ADF response at state level, the Senior Medical planner in that headquarters will assume lead planning responsibilities. This headquarters will have contact with health planners in DHSB.

Health Disaster Plans

All jurisdictions have a Health Disaster Plan

Tasmania

The Department of Health and Human Services maintains a peak document titled *The Department of Health and Human Services' Emergency Management Protocols*. These Protocols are reviewed annually, and provide linkage with the *Tasmanian Emergency Management Plan*, maintained by the Tasmanian State Emergency Service. The Emergency Management Protocols outline the context within which the Department of Health and Human Services provides emergency and disaster related services, and details of how the Agency meets specific responsibilities allocated to it under the *Tasmanian Emergency Management Plan*. The Protocols can be viewed on the Department's Intra and Internet site:

<http://www.dhhs.tas.gov.au/corporateinformation/emergency.html>

In addition, the Department is in the process of developing a *Plan for the Management of Epidemics and Related Biological Incidents*.

Last date of review of Health Disaster Plan

Jurisdiction	Date of last review	Comment
ACT		Currently under review
NSW	1997	Currently under review
Victoria	1997	Contact lists are updated twice yearly in January and July. Structural arrangements for Emergency Management in DHS are currently being strengthened. When this is finalised, a full review of the Plan will be undertaken. This will be completed by the end of the 2004 calendar year.
South Australia	2002	Currently under review
Tasmania	Dec 2002	
NT	Nov 2003	The plan is reviewed annually
WA	1996	Currently under review
QLD	2001	As it is now maintained electronically it is continually under review. Next complete re-write scheduled for 2004
Defence		Contingency plans are subject to period review and validation.

Specific CBR plans or sub plans

Australian Capital Territory

There is a separate plan for Chemical, Biological and Radiological emergencies.

The ACT Health plan covers incidents such as Transport, Fire, Storms, Hazardous materials, Earthquakes, Aircraft, Flood, Dam burst, Communicable/infectious diseases and Animal health.

ACT Health is currently developing an Influenza Pandemic Plan and a SARS subplan.

NSW

Chemical

State and local hospital disaster plans have chemical management in place. State SOP's for logistics in regard to deployment of personal protective equipment recently developed. SOP's being updated in accordance with HEALTHPLAN review. HAZMATPLAN (NSW Fire Brigades) also applies to Health and ambulance field response.

Biological/Infectious Disease

“Outbreak management plan”. Public Health SOP's under HEALTHPLAN.

Radiological

Generic plan in Public Health SOP's (being reviewed as part of HEALTHPLAN)
Specific plan for Lucas Heights developed and approved by NSW Cabinet September 2003.

Area Health Services and Hospital sites have plans for management of radiological casualties.

Burns

State Burns Management Plan. Burns disaster management based on HEALTHPLAN arrangements.

Review in light of national burns plan. (in development)

COSOP's developed at Area Health Service level. All sites on “RECOVER” database.

Business Continuity plans

in development based on risk assessment.

Consultant engaged reviewing all Health BCP's.

Communication plan in place.

Victoria

- Public Health Emergency Management Plan
- Medical Displan – Pre Hospital mass casualty/disaster plan
- First Aid Sub-Plan
- State Emergency Recovery Plan
- State CBR Arrangements
- Local individual health service and hospital specific response plans for a range of mass casualty, disaster and CBR events
- Statewide arrangements to manage Mass Casualty Burns' and Infectious Diseases Incidents, and Hospital Guidance on Emergency & Disaster Management are being developed.

South Australia

South Australia has formulated a “SA Functional Services – Contingency Plan”.

DHS is producing “Generic CBR Guidelines” for hospitals to attach to their Hospital DISPLANS.

Tasmania

- CBR Response

Tasmania Police is the Lead Agency with respect to CBR Response in Tasmania. They maintain the *Tasmanian CBR Response Plan* that was reviewed in August 2003. This plan outlines the main responsibilities of Tasmania Police, the Tasmania Fire Service, the Tasmanian Ambulance Service, the Department of Health and Human Services, the Department of Primary Industries, Water and Environment, and the Tasmanian State Emergency Service with respect to CBR incidents.

- Infectious Disease and Biological Incidents

The Department of Health and Human Services is in the process of developing a *Plan for the Management of Epidemics and Related Biological Incidents (draft)*. This plan provides a generic and flexible approach to managing a major health emergency in Tasmania. It uses a staged approach to event management, and provides for the use of state wide health resources (both public and private) in order to provide maximum protection to the Tasmanian community.

There are no plans specifically dedicated to the management of large numbers of burns victims.

Northern Territory

Sub plans are in place for Trauma response, Floods, Cyclone, Hazardous Chemical Response, Bush Fires and Radiology and Infectious Diseases. There is also a draft plan for CBR and Counter Terrorism circulating for comments.

Western Australia

For Biological aspects, there is the State Human Epidemic Emergency Management Plan – WestPlan – Human Epidemic. The Department of Health is the Hazard Management Agency for this plan.

There is also a State CBR Plan – WestPlan – CBR, which comes under the responsibility of the Fire and Emergency Services, and this plan describes the role of the Department of Health in the event of a CBR Emergency.

The Metropolitan Business Continuity Plan, the operational plan for scaling up the hospital response in relation to an emergency, also has CBR issues included in the latest revision (Oct 2002).

There is a VHF contingency plan and SARS and pandemic influenza plans are under development.

Queensland

- State CBR Hazmat Plan
- Biological Plan
- Radiation Plan
- Influenza Pandemic
- Dengue Fever Outbreak
- Nuclear Powered Warships Visits

- Mental Health and Public Health plans are sub plans of the Queensland Health Disaster Plan
- There is health input into Airport and port plans.
- State plans are reflected at Health Service District, Public Health and Mental Health networks.

Defence

- **CBR.**

ADF has a number of mature contingencies for response to CBR related incidents and these are practiced regularly both within Defence and in concert with other government agencies. These contingencies are subject to security caveat.

- **Infectious Diseases.**

No specific plans however ADF has representation at the Infectious Disease Emergency Response Group.

- **Burns.**

ADF has representation at the AHDMPCC Burns WG.

Training initiatives

Australian Capital Territory
Emergency Management Australia courses.

NSW

- Incident Command System Training- For Health and Ambulance Commanders.
- Chemical Biological and (CBR) awareness and response training Health and Ambulance Service
- Annual State Health Disaster Exercise. Plus participate in all major exercises.
- Australian Disaster Medicine Course.
- EMA CBR Course.
- CBR management at local sites.
- Major Incident Medical Management and Support (MIMMS) courses.
- HAZMAT awareness training
- Public Health Emergency Management Course.
- Urban Search and Rescue Category 1 and 2 training.
- Urban Search and Rescue Category medical specialists course.
- Special Casualty Access Training courses (ambulance)
- BA training for SCAT paramedics and selected pre-hospital doctors (through NSW Fire Brigade)
- Emergency Operations Centre Courses.

Victoria

- Introduction to Emergency Management – SESV/EMA
- EMA Disaster Medicine Course – DOHA/EMA
- Course in Recovery Management – Modules 1-4, EMA
- CBR Course – open to DHS, ambulance and health service personnel
- Major Incident Medical Management Support Program – Disaster Medical Team training for medical practitioners, nurses and ambulance officers.

South Australia

Appropriate DHS staff are being nominated to attend “Disaster Medicine Courses” and any other relevant disaster course, including CBR courses run at EMAI or other EM Training Facilities.

Tasmania

The Department of Health and Human Services participates in periodic training and exercises sponsored by the Tasmanian State Emergency Services and other related organisations (eg: Australian Red Cross and testing of the National Registration and Enquiry Service). The Department also nominates selected staff for attendance at training courses conducted by Emergency Management Australia at the Australian Emergency Management Institute, Mt Macedon. It is planned that with the newly created position of Coordinator - Emergency Management, training opportunities will be able to be further developed.

Northern Territory

Group and Section Leader attend EMA relevant courses both at Mt Macedon and local training courses organised by NT Emergency Services.

Western Australia

Participation in Multi-Agency Exercises eg Annual Airport Exercise and other exercises as they are developed.

Participation on all Emergency Management Courses is encouraged (MIMMS, Mt Macedon or, local Emergency Management courses).

However, it is noted that there has been a lack of specific CBR training in Western Australia and EMA has been approached to have a Mt Macedon course run on-site in Western Australia, which would enable a critical mass of people to be trained.

Queensland

- Introduction to Disaster Management Basic & Advanced
- JEST (Joint emergency services training course)
- CBR Awareness conducted by Emergency Health Services
- Pre-Hospital Trauma Life Support Course
- The Emergency Health Services Units assists districts with hypotheticals and tabletop exercises
- Monthly exercises are held at Brisbane Airport

Staff participate in Courses conducted by EMA either as students or instructors.

Defence

CBR response is practiced regularly with state and commonwealth agencies.

ADF individuals participate in EMA and other Disaster Management training activities and courses. At local level, most RAAF bases hold annual mass casualty training.

Part 2 Surveillance and Detection

All States and Territories have public health units that are able to detect an adverse health trend. (Table 2.1). All jurisdictions reported they had call centre facilities that were either continually operational or able to be established rapidly.

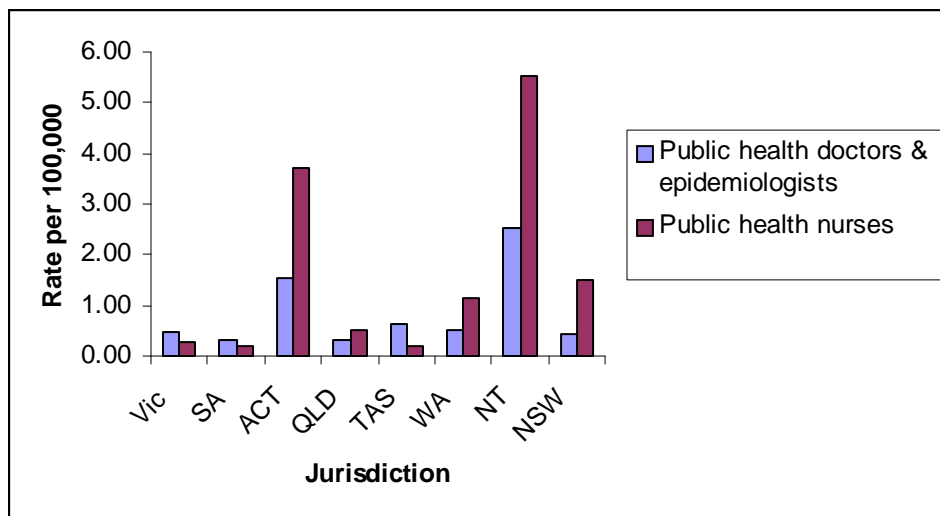
There is approximately 1 public health nurse and 0.5 public health doctors/epidemiologists for each 100,000 Australians.

Table 2.1 Public health workforce

	Public health units for adverse health trend	Public health Rate* doctors/epidemiologists	Public health Rate* nurses	Environ Rate* mental health officers (EHO)	Total staff	Rate*			
Vic	10	23	0.47	13	0.26	16	0.33	52	1.06
SA	1	5	0.33	3	0.20	20	1.31	28	1.83
ACT	1	5	1.55	12	3.72	20	6.19	37	11.46
QLD	13	12	0.32	20	0.53	78	2.05	110	2.90
TAS	1	3	0.63	1	0.21	10	2.10	14	2.93
WA	12	10	0.51	22	1.13	27	1.38	59	3.02
NT	1	5	2.52	11	5.54	14	7.06	30	15.12
NSW	18	30	0.45	100	1.50	100	1.50	230	3.44
Total	57	93	0.47	182	0.91	285	1.43	560	2.82

per 100,000 population

Figure 2.1



Part 3 Response capability

Specialised CBR event

The capacity to respond to a specialised chemical or radiological event is not well standardised across the country. No specialised services are available in Qld, WA or South Australia. Tasmania and ACT reported 1 specialised response unit each. NSW reported a specialised team in each of 18 area health services. Victoria reported one fully equipped vehicle for radiation incidents and radiation detectors on fire Hazmat Vehicles. However, the number of staff with expertise in chemical and radiological effects is difficult to determine because of differing definitions of staff qualifications reported in the survey.

Mortuary Facilities

The reports of mortuary facilities were limited by poor definition by the question. Some jurisdictions interpreted the question as extra capacity for mass casualties, some numbers of facilities rather than body spaces. Approximately 500 bodies can be held for examination in NSW and a similar number in Brisbane. South Australia would be able to store approximately 200 bodies. Victoria reports that the Coroner has plans for mass casualties that exceed hospital capacity while Tasmania and ACT report no additional capacity above normal hospital functions. The Australian Defence Force has limited deployable mortuary capabilities. Some jurisdictions including Western Australia referred to off-site or commercial facilities and contracted refrigerator space being able to be sourced.

There is no clear estimate of the number of dead bodies that could be stored prior to disposal in Australia. Nor is there estimates of what storage capacity would be adequate. In Operation Topoff 2000 in the USA, by the third day following a covert release of plague 100 had died, and day seven 2,000 had died.

Emergency Road Transport

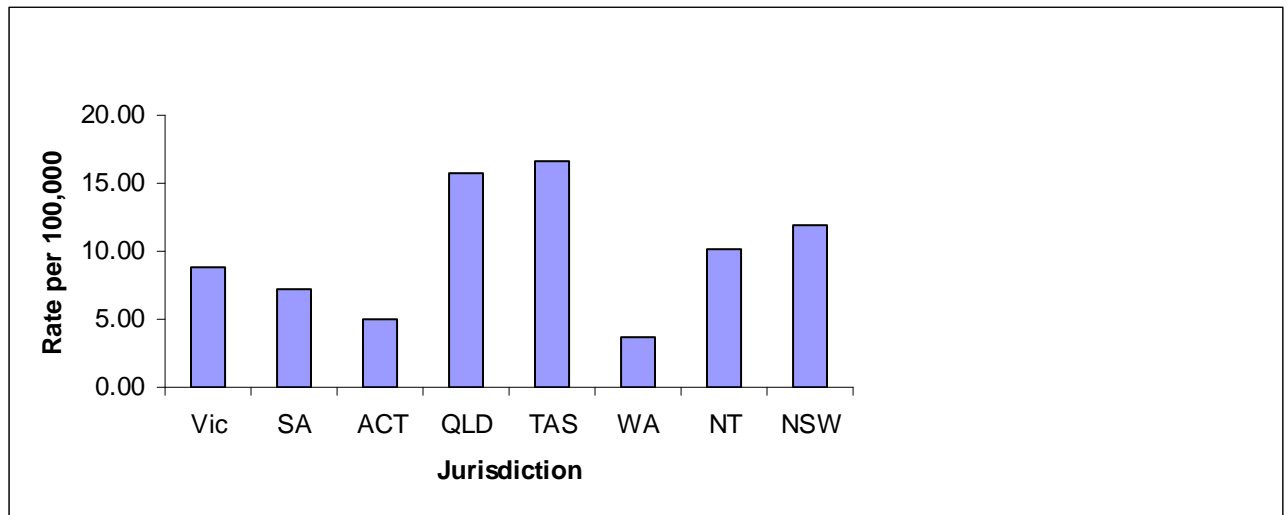
There are 2131 emergency response road ambulances in Australia of which 5% (99) are equipped for specialised response for a CBR event (Table 3.2). No vehicles in ACT or Tasmania were equipped specifically for a CBR event, no information on CBR equipped vehicles was provided by SA and Qld.

Table 3.2

	Communication centres	Emergency response category 1	Rate*	Patient transport category 2	Rate*	CBR Specialised response
Vic	6	433	8.81	NA	0.06	3
SA	3	110	7.20	NA	NA	NA
ACT	1	16	4.96	1	0.00	0
QLD	9	600	15.80	100	NA	NA
TAS	1	79	16.56	11	0.00	0
WA	2	73	3.74	NA	3.74	73
NT	2	20	10.08	13	10.08	20
NSW	NA	800	11.96	90	0.04	3
Total	24	2131	10.72	215	0.50	99

* per 100,000 population

Figure 3.1 Rate of road ambulances per 100,000 population



Ambulance crews

There are approximately 7,500 trained ambulance personnel in Australia (Table 3.2). The estimated maximum number of crews available in Australia is 1,150. All jurisdictions other than Victoria were able to estimate the maximum number of crews available. The mean ratio of number of trained personnel to maximum number of crews was 5.9 over 6

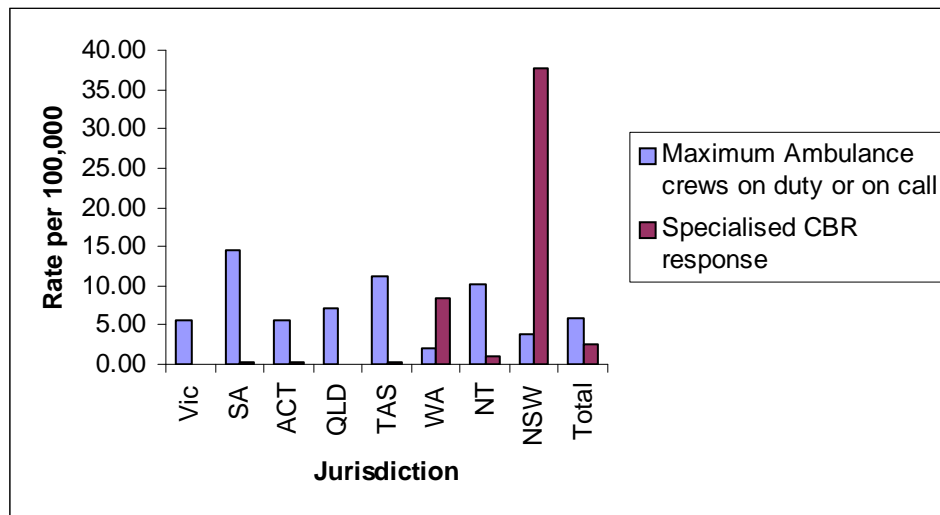
jurisdictions (range 1.9 – 10.8). This ratio was used to estimate the maximum number of crews available in Victoria from a trained workforce of 1,635 ambulance personnel.

Table 3.2

	Minimum number of ambulance crews	Maximum number of ambulance crews	Maximum number of CBR trained ambulance crews	Total trained ambulance personnel
Vic	NA	277*	277*	1635
SA	180	220	12	750
ACT	6	18	4	98
QLD	NA	270	NA	1800
TAS	50	53	12	153
WA	23	40	40	314
NT	9	20	20	38
NSW	88	250	75	2700
Total	356	1148	163	7488

* Estimated. Ambulance services operate from 206 locations with varying crew configuration and availability depending on the time of day & day of week. All Victorian ambulance crew receive CBR training.

Figure 3. 2 Ambulance crews and specialised CBR response per 100,000 population by jurisdiction



Crews to vehicles

There are more emergency road ambulances than there are crews to operate them. There is a maximum of 1,635 crews for 2,131 emergency road ambulances.

There were 2,400 volunteer ambulance personnel reported from three jurisdictions with a ratio of volunteer to employed personnel ranging from 1.5:1 to 4:1. Thus a total estimate of trained first aid personnel could be between 11,000 and 30,000.

Volunteer personnel were reported from three jurisdictions with a ratio of volunteer to employed personnel ranging from 1.5:1 to 4:1. Using these ratios the estimate of trained first aid personnel is between 11,000 and 30,000.

Medevac

There are 169 teams that are specifically trained and equipped to provide out-of-hospital services.

Table 3.3

	Medevac teams	Doctors	Nurses
Vic	30	NA	NA
SA	19	19	38
ACT	1	1	2
QLD	70	NA	NA
TAS	6	14	2
WA	5	20	28
NT	5	NA	NA
NSW	26	52	107
Total	162	106	177

Air ambulance

There are approximately 80 dedicated craft that are used to transport patients in Australia that can move between 60 and 150 people. The Australian Defence Force is likely to be able to provide a limited number of rotary wing and fixed wing aircraft and crews to provide mass casualty movement. However the occupational safety of transport of a person in a CBR incident will limit air transport. Pilots are not able to wear adequate PPE against these agents. Most casualties of a CBR event will be required to be transported by road.

Table 3. 4 Number of dedicated air ambulances by jurisdiction

	Dedicated rotary	Dedicated fixed wing	Total craft	Total Stretchers
Vic	3	4	7	11
SA	2	6	8	15
ACT	1	0	1	4
QLD	12	10	22	49
TAS	2	1	3	5

WA	0	11	11	22
NT	1	10	11	17
NSW	10	8	18	29
Total	31	50	81	152

Equipment

The equipment reported in the audit was not consistent between jurisdictions because the question was not specific. The responses are listed in Table 3.5. The Defence Force does not have permanent facilities but some bases can use medical facilities for low level decontamination. ADF possess a deployable decontamination facility that may be available on request. This capability is well rehearsed and forms part of ADF Counter Terrorist response. The facilities are tasked by operational head quarters and capabilities are subject to security caveat.

Table 3. 5 CBR equipment

Jurisdiction	Equipment
Vic	Disaster medical teams have kits Retrieval teams have ECG monitors, ventilators, syringe pumps, oxygen saturation monitors, blood pressure machines, IV fluids, Drugs
SA	Each 3 person retrieval team and 3 field medication team kits. 1 paediatric kit
ACT	2 Thomas Packs (15kg) 2 Dressing Packs (5kg)
QLD	Thomas Packs QAS hold bulk equipment in emergency support units across the state. Minimal PPE in major hospitals
TAS	Launceston 2 Thomas Packs with emergency equipment and drugs. 1 portable ventilator Basic retrieval equipment
WA	RFDS 11 ventilators, 11 critical care monitoring, 11 biochem, 11 cardiac defibrillators, 30 syringe drivers & IV pumps
NT	Equipment is similar across the 4 main base hospitals and includes full intensive care level monitoring, airway and trauma equipment etc. Blood and antivenom can be accessed as required. Each base has a supply of basic medical disaster materials including IV fluid for approximately 20 people. No specific vaccines, antidotes or specialised protective equipment is kept.
NSW	Standardised disaster kits in every area health service. CBR kits prepacked, antidotes, PPE for each team member

Decontamination facilities

Vic	22 hospitals have 1 – 4 head fixed shower decontamination capacity. Other capacity is provided by Fire Services.
SA	Fixed unit Multivictim decontamination facility Royal Adelaide Hospital & plans for 3 other hospitals. Operated by Fire Service personnel & when activated allow decontamination of 60 – 80 exposed victims per hour. Mobile decontamination facilities provided by SA Metropolitan and Country Fire Services.
ACT	Fire brigade.
QLD	Mobile unit at Royal Brisbane Hospital, Inflatable for Princess Alexandra otherwise hoses adjacent to Emergency Departments. Qld Fire and Rescue Service do not have the capacity to provide decontamination.
TAS	Rudimentary shower at Launceston. Six portable decontamination units with Tasmanian Fire Service
WA	Fixed facilities outside emergency departments at each of 4 metropolitan teaching hospitals. Fire and Emergency service could provide mobile decontamination facilities at other secondary hospitals in Perth area.
NT	Mobile decontamination from Fire & Rescue Services Emergency Department / RDH – hose outside hospital New development with outside & inside showers, decontamination suite (negative air plus waster water separately collected). In Gove and Groot Eylant, Alcan & Gemco mines, the facilities are only intended to be “in house”.
NSW	12 mass decontamination facilities, semi-permanent. Have thermostatic mixing and facility to segregate. The area health services own and maintain these facilities.

Part 4 Hospital capability

Hospital Beds

Australia has approximately 73,000 acute care beds (Table 4.1).

The total number of beds reported from the capability audit is slightly lower than to the total reported by AIHW 1999-2000 (ref Australia's Health 2002) being 73,202 and 78,193 respectively. The discrepancy may be due to the inclusion of psychiatric beds (2,759) and private day hospital beds (1,581) in the AIHW report.

Table 4.1 Number of hospital beds by jurisdiction and hospital type

	Public	Private	Military	Total	Rate per 100,000 population
VIC	11600	6870	60	18530	376.83
SA	3300	0	8	3308	216.58
ACT	885	170	0	1055	326.73
QLD	10000	6000	NA	16000	421.41
TAS	948	841	0	1789	374.97
WA	3513	1816	0	5329	272.96
NT	617	118	0	735	370.46
NSW	20147	6309	0	26456	395.66
Total	51010	22124	68	73202	256.60

Table 4.2 Number of hospitals by jurisdiction and hospital type

Hospitals	Public	Private	Military	Total
VIC	96	97	2	195
SA	73	0	1	74
ACT	2	3	0	5
QLD	215	55	2	272
TAS	3	7	0	10
WA	89	23	1	113
NT	5	1	2	8
NSW	206	85	0	291
Defence*				0
Total	600	248	7	855

- ADF has major inpatient health facilities in Brisbane and the Greater Sydney region

Table 4.3 Number of hospitals with 24 hour surgical coverage

	Public	Private	Military	Total
VIC	37	5	0	42
SA	67	0	0	67
ACT	2	0	0	2
QLD	40	10	0	50
TAS	3	1	0	4
WA	6	2	0	8
NT	5	0	0	5
NSW	50	3	0	53
Defence*			Brisbane	1
Total	210	21	0	232

Surge capacity

There is limited surge capacity for a health emergency in Australia. A maximum of 7,400 beds could be provided but no more than 3000 in any jurisdiction (Table 4.4). The Defence force capacity is reported to be limited by staff. The proportion of total beds that can be allocated for a surge requirement ranges from 60 per 1,000 beds to 136 per 1,000 beds. ACT reports no surge capacity.

Table 4.4 Hospital beds available for short term surge by hospital type and jurisdiction

	Public	Private	Military	Total surge	Total beds	Proportion per 1,000 beds able to meet surge
VIC	2000	0	60	2060	18530	111.17
SA	200	0	0	200	3308	60.46
ACT	0	0	0	0	1055	0.00
QLD	1000	600	0	1600	16000	100.00
TAS	106	limited	0	106	1789	59.25
WA	111	224	0	335	5329	62.86
NT	100	0	0	100	735	136.05
NSW	3000	0	0	3000	26456	113.40
Defence*						
Total	6517	824	60	7401	73202	101.10

*Limited surge capacity in short term (<48hrs) due to inability to increase staffing

Many jurisdictions had difficulty reporting the number of operating theatres in the hospital system (Table 4.5)

Table 4.5 Number of operating theatres by hospital type and jurisdiction

	Public	Private	Military	Total
VIC	N/A	N/A	N/A	N/A
SA	40	0	1	41
ACT	15	4	0	15
QLD	250	160	0	410
TAS	21	25	0	46
WA	66	57	0	123
NT	12	4	0	16
NSW	600*	0	0	600
Defence	0	0	8	8
Total	1004	246	9	1259

* estimated from small survey

Intensive Care

The number of intensive care beds reported is less than that reported in the ANZICS data that were used for the previous report to the NCTC on 11 Dec 2003. The audit reported a total of 1,394 beds, 77% of the ANZICS report of 1,803. If the number of ICU beds reported in the audit process is correct, the capacity reported in the previous paper to NCTC is overstated by 23%.

Table 4.6 Number of ICU beds by hospital type and jurisdiction from AHDMPC audit and ANZICS research.

	Public	Private	Total	ANZICS public and private	Extra number of beds reported by ANZICS
VIC	176	42	218	362	144
SA	60	0	60	214	154
ACT	24	3	27	36	9
QLD	192	80	272	329	57
TAS	36	4	40	50	10
WA	64	47	111	125	14
NT	13	0	13	13	0
NSW	521	132	653	674	21
Defence	0	0	0		0
Total	1086	308	1394	1803	409

Isolation capacity

In Australia's public hospitals there are 540 isolation beds within negative pressure rooms⁵.

⁵ During SARS Hong Kong Department of health reported 812 people in hospital, inadequate number of neg pressure facilities

Tasmania (14) and NSW (250) reported all negative pressure rooms have been tested. There are a further 32 isolation beds in private facilities: 22 in WA that are in negative pressure rooms and 10 in Qld without negative pressure facilities.

Table 4.7 Public hospital beds equipped for isolation of patients with infectious disease by jurisdiction and negative pressure capacity.

State/Territory	Isolation beds	Isolation beds within negative pressure room
Vic	560	144
SA	Not reported	40
ACT	Not reported	12
Qld	300	Not reported
Tas	52	14
WA	Not reported	51
NT	54	29
NSW	876	250*
Defence	0	0
Total		540

* 45 have anterooms

Ventilators

There are 2039 ventilators available in Australia. The Defence force has a limited number of ventilators.

Table 4.8: Number of physical ventilators available

	Public	Private	Total
VIC	350*	0	350
SA	60	0	60
ACT	58	7	65
QLD	200	50	250
TAS	33	10	43
WA	117	24	141
NT	28	0	28
NSW	945**	157	1102
Total	1791	248	2039

* includes transport ventilators, anaesthetic machines etc

** 495 dedicated ICU, minimum 270 anaesthetic and transport

Hospital Capacity Chemical and Radiological attack

There are 44 decontamination facilities within the country, but none reported in Queensland or Tasmania⁶ There are 22 in Victoria, 12 in NSW, 4 in each of SA and WA,

⁶ Tas reported Nil, Qld left blank cell – ck with Qld

and 1 in each territory (ACT and NT). While the defence force reported limited capability in hospitals they did report that the ADF possesses one deployable decontamination facility that may be available on request. This capability is well rehearsed and forms part of the ADF Counter Terrorist response.

Burns management from explosive devices

There are 161 beds allocated to burns management, none are in the private sector or military establishments (Table 4.9). The proportion of burns beds out of all public hospital beds varies greatly from none per 1,000 beds to 20 per 1,000 beds.

Table 4.9 Number of burns management beds (none in private sector)

	Burns beds	Rate per 100,000 population
VIC	60	1.22
SA	10	0.65
ACT	0	0.00
QLD	20	0.53
TAS	19	3.98
WA	18	0.92
NT	1	0.50
NSW	33	0.49
Defence	0	0.00
Total	161	0.81

Site Disaster Teams

There are 127 site disaster teams within Australia that are able to be deployed by States or Territories (Table 4.10). Four site disaster teams are located in private hospitals. The Defence force ability to provide site disaster teams was reported as variable in number with capacity most likely to be available in Sydney or Brisbane.

Table 4.10 Number of hospitals that are able to respond with a site disaster team by hospital type and jurisdiction

	Public	Private	Total
VIC	30	0	30
SA	6	0	6
ACT	1	1	2
QLD	40	1	41
TAS	2	0	2
WA	6	2	8
NT	3	0	3
NSW*	35	0	0
Defence**			0
Total	123	4	127

* disaster teams deployed by areas health service not necessarily by site

**varies, Sydney and Brisbane most likely

Part 5 Disaster Equipment

State	Personal protective equipment	Number	Arrangements for use of Personal protective equipment	Communications devices (eg.radios)	Number	Other
ACT	Chemical suits Breathing apparatus sets +	30 100	PPE for exclusive use by Fire Brigade staff in event of chemical or hazardous material spill	UHF radio network linking key organisations + authorities via ADF Ambulance service radios UHF, VHF, Fire brigade radios	84 20 72 +	
NT	Basic face masks + goggles		Protective gear stored with PFES	2-way radios, limited sat phones, mobile phones		
NSW	Bio-emergency cache: Disposable gowns; UVEX goggles; P2/N95 masks; Disposable latex gloves; Anti-microbial hand wash solution; Tympanic thermometers; Clinical waste bags; Plastic bags CBR PPE: Type F Tyvek Suits SE400 PAPR Resp. Canisters 3M Breath Easy PAPR Vaccines: Supplied through Australian Government	3200 300 40,000 8000 320 40 2000 2000 1020 320 1580 50	Chemical: Level A suits (FE suits) supplied to SCAT paramedics at site <i>Level C protection deployed with disaster medical team, Major Incident Support Unit (ambulance), rotary or fixed wing aircraft + from ambulance stations.</i> <i>PPE can also be deployed into hospital sites to manage self-presenters, through area health service + counter disaster unit.</i> Biological: Local stocks reinforced by central cache held by state. Assumption that Australian Government will assist through national medicines stockpile. Radiological:	GRN Radios in each Area Health Service + at State level. Mobile phones. Sms for incident notification Multistream FAX at Disaster Centre. HIRIS – Health Incident Reporting Information System. Web-based. Satellite phones issued to key personnel.		Stable iodine tablets 60,000 for radiological emergencies.
QLD	Gold Coast, Logan, Princess Alexandra, Royal Brisbane, Nambour Rockhampton, Townsville + Cairns have electrically power	3 on each site. Will be at least doubled when additional	Training conducted by staff who are trained by companies +/- or training conducted by EMA	Mobile phones, landlines, data transmission, telehealth, UHF Radio net in South East Queensland links Eds, police + Queensland Health. Ambulance radio in emergency health services vehicle. HF + UHF CB used in country areas. Satellite phones	??	

	respirators + disposable suits	training completed + cache distributed				
SA	SARS type use	RAH + W&C	In hospital, as required	All DHS Metro + Regional Hospitals: SA-GRN Radios installed. Hospital based Retrieval Teams: hand held Portable SA-GRN radios. RAH, FMC, QEH, RGH, W&C, MODBURY, LMHS, SAAS, BLOODBANK, + DHS also currently use "Hernia" Radio Network (Will be decommissioned in near future, migration to SA-GRN)		
TAS	RHH: Gowns + masks only LGH: no full NBC suits Protective overalls, masks, gloves only. NWRH: Gowns + masks only Tasmania Fire Service: Level A Level B Positive pressure BA	40 60 120	Tasmania Fire Service carry + wear in most cases. Equipment is provided to personnel from other Departments as needed, + where appropriate training undertaken.	RHH: LGH: 2 x CB radios (ambulance/police frequencies). 2 x disaster dedicated mobile phones. NWRH: dedicated mobile phone. Tasmania Fire Service VHF (vehicles) VHF (Portable)	400 500	

VIC	Level C	800 distributed through metropolitan + rural hospitals, + metropolitan ambulance service. Purchase of PPE for rural Ambulance under consideration	<i>Hospital response staff use PPE for receipt of walking wounded.</i> At incident site, PPE for use in cold zone. Some Metropolitan Ambulance personnel trained to assist in warm zone	MAS: Routine ambulance UHF Area Medical Coordinators - have access to Ambulance UHF (Metro only.) Major Hospitals: ED has dedicated communications line to Ambulance	6 SMR radios 11	
WA	Ambulance: Coverall – TYUEK Barrier man “C” Respirator – full face neg pressure RFDS: nil other than gloves, masks + eye wear Hospital system: policy for type of PPE under development	350 350 minimal	Ambulance: PPE only used when responding staff unable to move to safe area, or when required to treat non-decontaminated patient. Hospital system: Staff to use PPE during decontamination procedures outside hospitals prior to patients entering ED, or for infectious agent, as appropriate during management.	Ambulance: Emergency MGI radio network RFDS: Satellite phones in each aircraft (no mobile sat phones or radios available) Hospitals: All public hospitals linked to DOH radio network	11	Ambulance Infectious disease high efficiency masks (24) <i>Polypropylene coverall (disposable) (24)</i>
Defence	Standard precaution equipment held – masks, oversuits, gloves, boots.	Varies by location. Limited number held locally.		ADF assets tasked to assist are self sufficient for communications – mainly hand held UHF, VHF radios + mobile phones. ADF command + control elements will establish compatible communications with civilian command elements.		Some facilities hold limited number of mass casualty response kits. Some units have capacity to deploy tented resuscitation capability.

Part 6 Pharmaceutical treatments

Most jurisdictions reported having a stockpile of agents or access to agents for treatment of a CBR event. The ability to use the combopens was raised as ambulance officers are not authorised to administer the agents.

Table 6.1 Stockpile of Pharmaceuticals held by States and Territories

[TABLE DELETED]

Part 7 Laboratories

The information provided on laboratory capacity is incomplete and a better representation would be found from the Public Health Laboratory Network.

	Physical containment level 2	Physical containment level 3	Physical containment level 4	PC level not specified
Vic	9	1	2	
SA				3
ACT	2	1		
QLD		1		
TAS	3 1 environmental			
WA	3	1		
NT	1			
NSW		2		
Total	18	6	2	3

Part 8 Liaison and Communication

State	How does your jurisdiction liaise with disaster bodies in Commonwealth, other State/Territory jurisdictions + other sectors (eg. Commonwealth Inter-Departmental Committee)	Outline your media strategy for major incidents involving mass casualties or infectious disease outbreak, including those arising from explosions, chemical, biological + radiological events. Including: - Availability of media experts within health portfolio - Key personnel who might liaise with radio, TV + print media. - Any media training arrangements.
NT	Through EMA, through informal networks Through Counter Disaster Operating Committees eg Infectious Diseases	In event of Disaster, Media releases made through NTFES Media Liaison Unit <i>Media experts – eg. Medical Superintendent, Director CDC</i>
ACT	In event of emergency requiring assistance from Commonwealth or States and Territories, Territory Controller will contact Emergency Management Australia. ACT Health liaises with key people in EMA (Joanne Laurence), AFP (John Murray) + ADF (Tony Austin).	Commonwealth contact is with Director of Biosecurity, Department of Health + Ageing Media briefings given by Chief Health Officer Paul Dugdale, Deputy Chief Health Officer, Charles Guest and the CEO ACT Health, Tony Sherbon. Media training available
NSW	Health liaison through AHD-MPC (jurisdictional representation). Requests for assistance into NSW made to State Emergency Operations Controller (SEOC) who is senior police officer. SEOC makes formal requests to Emergency Management Australia (EMA). <i>Cross border arrangements in place for incidents close to borders (e.g. Albury bus crash (2002) (Victoria + ACT) + potential incident at Coolangatta Airport. (Queensland). This mainly occurs through retrieval service + ambulance deployment.</i> External tasking of NSW Health assets occurs through SEOCON from EMA. Currently gap exists where NSW Health may not be notified during crisis management operations external to State. Important that AHD-MPC members consulted at earliest opportunity. This reduces risk of clinician “self-deployment” as key stakeholders can be briefed to ensure senior clinician engagement in process. However, tasking NSW Health assets should occur through SEOCON so that whole of government approach undertaken + this also ensures centralisation of communication within State (to Premier and Cabinet) Infectious Disease Emergencies: excellent arrangements in place through Communicable Diseases Network of Australia + States + jurisdictions well represented + consulted. AHD-MPC should also continue to be consulted in emergencies as ensures input from mental health, emergency managers,	<i>NSW Police has overall responsibility for media releases in disaster situation.</i> NSW Health, Ambulance Service of NSW + all Area Health Services have Communications Departments who co-ordinate media responses. NSW Health + Ambulance Communications units also link into whole of government communications through Communications Functional Area. Number of trained media experts available to represent NSW Health + Ambulance.

	<p>Defence + EMA. National CBR Committee needs more Health input into decision making + AHD-MPC should be consulted on national CBR policy. AHD-MPC member should be member of this committee as is case with National USAR Committee. Similarly, AHD-MPC membership should occur on ARPANSA + ANSTO committees to ensure integration in response to radiological/nuclear emergencies.</p>	
QLD	<p>Personal contact between interstate counterparts particularly NSW. Monitor incidents close to border. Membership of interdepartmental + national committees + working parties eg PHLN IDNA NH&MRC, AHMAC + COAG</p>	<p>Would use Whole of Government approach . Emergency Health Services have designated Queensland Health Media Officer. Key staff undergone media training.</p>
SA	<p>Through membership of AHD-MPC, - Direct with Commonwealth CHO, Department of Health + Aging, - Direct with EMA, + - Direct with each State CHO.</p>	<ul style="list-style-type: none"> - Through Department of Premier + Cabinet, - Through Minister for Health's Office, + - Through DHS Media + Communications Unit.
TAS	<p><i>On a number of levels:</i> - Tasmanian State Emergency Service provides one level of interface + disseminates relevant information to Agencies as appropriate. - Through individual officers from across Tasmanian State Service attending or being members of range of National level committees + groups with either direct interest in, or involvement with, emergency management.</p>	<p>Management of media information relating to major incidents, emergencies or disasters rests with relevant Lead Agency dealing with situation. eg. CBR incident: Tasmania Police, as Lead Agency, would coordinate information release. Department of Health + Human Services has dedicated Media Unit of two full time staff who coordinate preparation + release of health related information + advice. This done in conjunction with specialist Departmental staff such as Director of Public Health or Chief Health Officer. DHHS Media Unit also liaises closely with other stakeholders, including Tasmanian Government Media Office.</p>
VIC	<ul style="list-style-type: none"> - All requests for assistance in incident via State Emergency Response Coordinator in Victoria Police to EMA. - Member of AHDMPAC. - CHO of Victoria Chair of CDNA. Also representation on IDER + PHLN. - Member of National Burns' Planning Group - Informal ongoing discussion with key personnel involved in emergency + disaster response + recovery in other jurisdictions. 	<p>All media for issues outlined above coordinated through Department of Premier + Cabinet + Police Media Liaison office. Decision will be made on how to be managed depending on circumstances, eg. public health issue will involve Public Health + DHS media unit in preparation of response, may also involve Chief Health Officer delivering this information. Day to day issues normally handled by Public Health Division i.e. Legionella outbreaks etc. may not require DPC + Police involvement however due to current climate, as courtesy, included in briefings.</p>

WA	<p><i>Emergency management consultation with other sectors occurs on regular basis between SHC + SPO, as part of Functional group committees, State CBR committee, planning exercises + discussion of issues.</i></p> <p>Interaction with Commonwealth occurs via ADMG/AHDMPC + EMA regarding Mt Macedon courses.</p> <p>RFDS – direct liaison with aeromedical services in each State (esp RFDS Central, SA + NT + NTAMS, NT).</p>	<p><i>All senior DOH staff who do media interviews undergo daylong formal media-training course.</i></p> <p>Public Affairs Staff available 24/7 to liaise with media + relevant staff (depending on expertise).</p> <p>Depending on issue – spokes person can be sourced either from central office of DOH or else public hospital system.</p> <p>Depending on size of incident + media interest, press conference(s) may be held with daily updates provided to Public Relations to release to media at set time. Within reason, spokes people make themselves available as requested.</p>
Defence	<p>ADF liaison at national level through participation in existing committee structures. Similar arrangements in place with state disaster management committees.</p>	<p>ADF commanders have public relations experts on staff to provide advice + develop media strategies. Coordinated at national level through Dept of Defence Public Affairs Corporate Communication Division (PACC). PACC have existing relationships with other government agencies + media. ADF will deploy PACC staff to incident sites.</p>

Part 9 Education, Training and Research

Education and Training

State	What formal education activities has your jurisdiction been undertaking in field of disaster medicine or pre-hospital emergency care	What in-formal training activities has your jurisdiction been undertaking in field of disaster medicine or pre-hospital care?
NT	Regular review of disaster plan Once a year table top exercises Attendance at courses requested by EMA Regular in-services	In most circumstances would work NT DHCS media dept. Depending on type diaster plan activated + degree of activation may be working through local counter disaster coordinator.
ACT	Pre hospital emergency care: Advanced Diploma in Health Sciences – Ambulance Studies	Pre –hospital care: Ongoing 16-20 students in formal course Annual in service programs
NSW	<ul style="list-style-type: none"> - Incident Command System Training- For Health + Ambulance Commanders. - Chemical Biological + (CBR) awareness + response training Health + Ambulance Service - Annual State Health Disaster Exercise. + participate in all major exercises. - Australian Disaster Medicine Course. - EMA CBR Course. - CBR management at local sites. - Major Incident Medical Management + Support (MIMMS) courses. - HAZMAT awareness training - Public Health Emergency Management Course. - Urban Search + Rescue Category 1 + 2 training. - Urban Search + Rescue Category medical specialists course. - Special Casualty Access Training courses (ambulance) - BA training for SCAT paramedics + selected pre-hospital doctors (through NSW Fire Brigade) - Emergency Operations Centre Courses. 	<ul style="list-style-type: none"> - <i>Hospital Based Medical Team Training. Annual multi-agency exercises.</i> - CBR procedure Training.
QLD	<i>Staff in emergency Health services Unit completed HELP (Health Emergencies in Large Populations) conducted by WHO + ICRC. Staff members teach at AEMI + conduct CBR awareness training. Queensland Health conducts PHTLS Course targeting rural + remote areas. Number of medical staff completed Masters in Emergency/Disaster Medicine either at Edinburgh or San Marino.</i>	?

SA	<ul style="list-style-type: none"> - South Australia runs annual “Disaster Medicine Course” for City, Metro + Regional Medical Officers + Nurses.] - SA (RAH Based Team) looking to run MIMMS Courses for Emergency Physicians, etc in near future. - Dr David Squirrel, Noarlunga Health Service runs “Rural Disaster Training Modules” for Medical Students from the Flinders University. 	<p><i>Ongoing in-hospital training for Retrieval Teams + Emergency Departments Staff at all major city, metro + regional hospitals.</i></p>
TAS	<p>Department of Health Services has limited number of medical + other staff that have attended formal training + education, predominantly sponsored by Emergency Management or Tasmanian State Emergency Service. Department does not conduct formal training, rather nominates staff to attend specialist training activities, as available. These include Regional based exercises.</p>	<p>On-the job experience, generally related to activities of medical staff located in Departments of Emergency Medicine at three Tasmanian General Hospitals. Staff attend periodic ‘internal to hospital’ disaster + emergency planning meetings, occasionally attend emergency + related exercises + other activities sponsored by Tasmania Police. These activities provide additional + broader contextual awareness of emergency + disaster management in Tasmania.</p>
VIC	<ul style="list-style-type: none"> - Introduction to Emergency Management – SESV/EMA. - EMA Disaster Medicine Course – DOHA/EMA. - Course in Recovery Management – Modules 1-4, EMA. - CBR Course – open to DHS, ambulance + health service personnel. - Major Incident Medical Management Systems Training – Disaster Medical Team training for medical practitioners, nurses + ambulance officers. 	<ul style="list-style-type: none"> - Emergency Management planning + development Forums for health + human service sector - Seminars for Hospital personnel. - Exercises – Annual multi agency exercise testing ie. Medical Displan
WA	<p>Ambulance: MIMMS; Induction (Ambulance Officer) course training; Paramedic graduation course training; Perth Airport Exercise; Various disaster exercises during training.</p> <p>RFDS: Involvement in Australian Disaster Medicine Manual + Course (Mt Macedon); 5-6 staff have completed Australian Disaster Medicine Course, + 2-3 completed MIMMS.</p> <p>Hospital: Annual tabletop exercise for Metropolitan BCP; regular MIMMS training in Metro + Rural areas for ED staff; multi-agency airport annual field exercise; Metropolitan BCP field exercise with Industry 1-2 yearly.</p>	<p>Ambulance: Refresher training programs for Ambulance Officers + Paramedics (annually); Professional development sessions.</p>
Defence	<p>Selected ADF health commanders + staff attend EMA Disaster Management training.</p> <p>Many health staff in medical units undertake pre-hospital care as part of their ongoing skills training for their deployed role. Most ADF Medical Officers EMST trained + limited number enrolled in Emergency Medicine training program. Some have Public Health training. Many Nursing Officers attended TNCC + some completed Accident + Emergency training. Small number of health staff trained in Nuclear Biological + Chemical Medicine on annual basis.</p>	<p><i>Health staff practice pre-hospital care during ongoing field training.</i></p>

Research

State	What research institutions or centres in your jurisdiction have particular interest in field of disaster medicine or pre-hospital care	<i>What significant research studies are underway in field of disaster medicine or pre-hospital care</i>
NT	Nil	Nil
ACT	Not known	Not known
NSW	<ul style="list-style-type: none"> - Charles Sturt University. - CDU has a Research and Development position funded (as yet unfilled) - Further research through NSW Health Centre for Epidemiology and Research. 	Areas include: <ul style="list-style-type: none"> - Biosurveillance IT systems - Management of CBR incidents including self-presenters. - Impact of CBR education on front-line response. - Logistics management in Health emergency management Management of whole of government operations
QLD	<ul style="list-style-type: none"> - James Cook University - University of Queensland - Queensland University of Technology - Pre Hospital Care Research Unit (QAS) 	<i>Review of Pre-Hospital Trauma Life Support programme. Irikanji Research.</i>
SA	?	?
TAS	Nil	Nil
VIC	<ul style="list-style-type: none"> - Monash University Centre for Ambulance + Paramedic Studies - MacFarlane Burnett Institute 	<ul style="list-style-type: none"> - Knowledge Management IT proposal with Monash University for 2003/2005 - Review of emergency public health communication messages in 2003 Victorian Bushfires
WA	West Australian Pre-Hospital Care Research Unit.	Ambulance: CPR before defibrillation; Intranasal fentanyl; Cardiac arrest trial; adrenaline in cardiac arrest trial.
Defence	N/A	N/A

Part 10 Stakeholders

Please list various agencies, organisations +/- bodies you believe should be involved in comprehensive national approach to health disaster management.

State	Professional	Industry	Government	Community*	Other
NT	?	?	?	?	?
ACT	<ul style="list-style-type: none"> - Division of general practice - AMA - Nurse's Federation - Relevant specialist colleges - Surgeons, respiratory physicians, burns unit staff - Emergency and intensive care staff - Ambulances, fire brigades - Counselling services 	<ul style="list-style-type: none"> - Pharmaceutical industry - Hospital Suppliers 	<ul style="list-style-type: none"> - <i>ACT Health Emergency Services</i> - Bureau Management Committee EMA - Commonwealth ADF 	<ul style="list-style-type: none"> - Red Cross Blood Bank - St John's Ambulance - Rotary - Lions - Salvation Army 	?
NSW	Medical Professional Colleges: ACEM RACS esp Trauma RACP ANZCA +ICU ANZBA (burns) College Ambulance Professionals Population Health Infectious Diseases Pharmacists Forensics/Pathologists/blood services Mental health	<ul style="list-style-type: none"> - Water - Engineers - Food - Telecom's 	<ul style="list-style-type: none"> - States and Territories - Local Government - Liaise with other state agencies through SEMC (or equivalent) - ADF - EMA - DFAT (Health arrangements overseas) 	<ul style="list-style-type: none"> - NGO's - Community input from different groups - Ausaid 	?
QLD	?	?	?	?	?
SA	?	?	?	<ul style="list-style-type: none"> - Salvation Army - Lions Clubs International - Rotary Clubs - Surf Life Saving Association of Australia (SA) 	?

TAS	<ul style="list-style-type: none"> - Professional Medical Colleges. - Royal College of Nursing Australia. - Australian College of Emergency Medicine. - Royal Australasian College of Surgeons. - Faculty of Public Health Medicine, RACP. 	<ul style="list-style-type: none"> - Major pharmaceutical suppliers. - The Insurance Council of Australia. 	<ul style="list-style-type: none"> - Department of Health and Ageing. - Relevant State/Territory Health Authorities. - Department of Defence. - Emergency Management Australia. Related Emergency Services organisations: - Police, Fire, SES etc - CDNA 	<ul style="list-style-type: none"> - Representation from Local Government organisations. Non Government Organisations who provide support: - Red Cross, Salvation Army, etc 	Specifically Community Recovery elements of State/Territory Health Agencies
VIC	<ul style="list-style-type: none"> - General Practitioners Bodies - Specialty Colleges (Medical and Nursing) - Australian College of Ambulance Professionals - Australasian Fire Authority Council 	<ul style="list-style-type: none"> - MIAA - Targeted Pharmaceutical Manufacturers - Air Transport - Telecomms providers - Municipal Association of Victoria 	<ul style="list-style-type: none"> - ADF - EMA - LGA 	<ul style="list-style-type: none"> - Australian Red Cross - ARCBS – Blood Services - First Aid - Voluntary Organisations (listed previously) - WICEN - NGOs 	?
WA	<ul style="list-style-type: none"> - Australian College of Emergency Physicians. - Australian Nurses Federation. - Australian College of Ambulance Professionals. - Australian Convention of Ambulance Authorities. - Australian College of General Practitioners. - Public Health Laboratory Network. - Communicable Diseases Network Australia. - Rural Doctors Association of Australia. - Australian Centre for Remote + Rural Medicine. 	<ul style="list-style-type: none"> - Petroleum Fertiliser. - Chemicals. - Airline. - Private Health Industry. - Health Industry Suppliers. - Private Ambulance Operators. - Transport Industry Operators. 	<ul style="list-style-type: none"> - Health. - Environmental Protection Agency. - Police service. - Emergency Services. - Chemistry/ Microbiology + Radiology Analytical Laboratories. - Australian Defence Force. - Local Government Agencies. - Department of Community Development. 	<ul style="list-style-type: none"> - Disability groups. - Cultural organisations. - Religious organisations. - Volunteer organisations (eg Sea & Rescue). - Community Welfare groups. - Volunteer First Aid Groups 	?
Defence	?	?	?	?	?

(*including consumer groups)