NSW Health
Disaster Mental Health Manual 2012

A collaboration between NSW Health and University of Western Sydney
Acknowledgements

NSW Health and Mental Health for its support of this important initiative

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Foreword

NSW Mental Health services are regularly called upon to assist in the health response to an emergency or major adverse event. In recent times this has included sending mental health personnel to assist Queensland’s response to the devastating floods of 2011; responding to widespread and long term flooding across rural NSW, and to incidents such as the Quakers Hill Fire and the Airport response at Richmond Airbase and Sydney Airport for people returning from Christchurch after the 2011 earthquakes. We can be sure that events such as these will continue to occur. Such responses reflect the growing body of committed trained staff that are available to provide a disaster response, working alongside emergency health and disaster welfare personnel to support the community in times of need. Feedback from these endeavours has been consistently very positive about the presence of mental health support.

Since the first Manual was released in 2000 much has been learned about the importance of mental health interventions and support in all aspects of disaster response. With growing awareness, training programs across NSW and strong relationships between mental health and our colleagues across the health spectrum and with other key stakeholders, there is a strong groundswell of experienced, trained personnel across LHDs, ready to participate in a health response to disaster should they be called upon to do so.

In line with international and Australian developments this Manual highlights the importance of mental health across the spectrum of planning (prevention, preparedness, response and recovery) to deal with all disaster hazards. The planning, training and preparedness promotes capacity building for mental health and for mental health workers’ roles with other disaster agencies and professionals.

We are very fortunate to have had this resource developed by Professor Beverley Raphael and her colleagues at the University of Western Sydney. Professor Raphael has been at the forefront of disaster mental health research and development in this area for many years. She has advised governments in the provision of disaster mental health response in Australia and internationally and through her presence on the NSW Health Disaster Mental Health Advisory Group, we continue to be able to draw on her wisdom and expertise in this rapidly developing field of knowledge.

While mental health responses to such events require a response that is based on the best available evidence, each disaster presents unique challenges and requires a flexible, coordinated response tailored to the circumstances. I trust that the information and resources contained in this manual and the related handbooks will be of real assistance in rising to these challenges.

Associate Professor John Allan
NSW Health Chief Psychiatrist
State Mental Health Controller
20 September 2012
Introduction

The NSW Health Disaster Mental Health Manual (2012) provides a new framework for the understanding of, and response to mental health aspects of disaster. This manual is shaped to fit with the Australian Government and international frameworks which identify an “All Hazards” model and core elements of: Prevention, Preparedness; Response and Recovery (PPRR). Hazards encompassed include: Natural Disasters; “Human Caused” including Technological Incidents; Terrorism, also “human caused”, but with malevolent intent, and reflecting mass violence, and including all its forms: chemical, biological, radiological and nuclear, cyber terrorism, agro terrorism, and multiple others. “All Hazards” also includes health disasters such as pandemics; environmental disasters such as global warming, climate change; other incidents that cause mass damage, destruction and death. In this model it is also recognised that there may be multiple hazards occurring simultaneously, interacting with population factors and infrastructure such as essential services, technologies, and human and other systems.

This 2012 Manual builds on the earlier resource that was developed with the Disaster Mental Health Manual (2000) by NSW Health and the NSW Institute of Psychiatry. This had been prepared with associated education and training so as to have response readiness for mental health as a component of planning, should incidents occur in the context of the Sydney Olympics. It was a major achievement as a resource based on the best available evidence to that time. It also integrated mental health into the broader health and disaster planning and response system. That resource has been widely available and used nationally and internationally to inform disaster mental health response, including for instance post 9/11, and after the South East Asian Tsunami, and for many other disasters to the present day.

Disaster response systems have developed extensively since that time, and mental health components have supported planning and response in line with these challenges. Knowledge, experience, research and the effects of the natural catastrophes that have devastated communities with mass death and destruction; as well as the terrorism attacks and threats; the pandemics, have all added to the need to provide the most effective framework. This is the more so with the huge economic costs and burden of such events, as well as human, societal and mental health impacts.

This new manual has been developed through a partnership between NSW Health and the University of Western Sydney. It has encompassed the extensive research in disaster
mental health and related fields that has taken place in the past 12 years, and linked these findings to relevant mental health contributions through the Prevention, Preparedness, Response and Recovery. It also takes into account both population level strategies, and individual and clinically relevant interventions. It remains grounded to the realities of disasters, offering options, in terms of what is possible with human and other capacities. It also takes into account the strengths and good in people at such times, both those affected and those responding to such threats. It addresses the 3 levels of mental health response. Learnings from research and experience are provided along with implications and suggestions for practical application, highlighted in the shaded sections found throughout the manual. It is composed of 8 general chapters, and there are additional more detailed modules, presented as Practice Handbooks, dealing with core elements of Resilience; Psychological First Aid; General and Broadly Based Interventions for Mental Health Consequences of Disaster; Specialised Assessment and Treatment for Post Disaster Psychiatric Morbidity; and Bereavement. Further practice handbooks including more specialised modules, for instance dealing with children, will be added.

In conclusion this resource recognises the core elements of disaster preparedness and response, but is framed to be used as relevant to potential events and their consequences, and in the real world of disaster experience – for all involved. It recognises the courage, goodness, humanity of those affected and the complex individual, family, community and other impacts. It acknowledges also the strengths and resilience, the special challenges for the most needy, the nature of loss and survival; and the power of human connectedness, compassion, hope, determination, drive to survive, endure and move forward into the future.

I am deeply grateful to all who have contributed from their knowledge and experience to this resource. It will progressively evolve over time as knowledge grows, experience informs, communication and the World Wide Web resources expand, and will be resilient and adapted to these challenges as they emerge. I would especially like to recognise the forward thinking, commitment and support of the NSW Government, specifically NSW Health in this endeavour, which is relevant for all Australians as well as those dealing with disaster across international settings.

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University of Western Sydney
June 2012
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SECTION 1
Chapter 1 – Overview

Disaster: a disaster is generally understood as an occurrence, which at least temporarily, overcomes the available resources. Disasters are broadly understood in terms of natural disasters, but increasingly encompass a range of hazards, affecting populations in diverse ways.

Aims
To provide an overview of: “disasters” in terms of current “All Hazard” frameworks; how they may be responded to through Prevention, Preparation, Response and Recovery (PPRR) strategies and systems; their impacts on health, mental health, wellbeing, social and occupational functioning, and human societal and economic impacts; strategies through PPRR to lessen their adverse consequences, and facilitate positive adaptations.

General overview
There is a clear policy framework for response to disasters and other mass incidents in the “All Hazard” framework articulated by Australian and State and Territory governments, and internationally. This encompasses the range of threats that may affect populations in diverse settings. The components of this are Prevention, Preparation, Response and Recovery, also known as P.P.R.R. This manual is informed by a review of extensive research and evaluation that has been carried out; international initiatives by the United Nations, the World Health Organisation (WHO), and many other lead organisations; and by Government leadership internationally and in Australia, and many other settings.

This model is built on extensive research, consensus building and progressive building of knowledge from scientific evidence, practice and experience; implementation of disaster mental health strategies; and to a lesser extent, formal evaluation. Limitations reflect the difficulties of disaster research in ethical and methodological terms (Kessler et al 2008, Norris et al 2008). Nevertheless, broader analysis of lessons learned, comparison of data from diverse sources, and modelling approaches, all assist progressive adaptations and improvements of the strategies required to manage these challenges.

This volume will focus on psychosocial and mental health themes, while recognising their relevance in the multi-system approach throughout. Different threats will be explored, their significance in relation to their potential impacts and possible effects on: mental health or physical health; wellbeing, social, and other effects on functioning in the acute period and aftermath; and potential public health and clinical interventions that may be effective in mitigating negative mental health trajectories and outcomes, and other adverse consequences.
From the outset these psychosocial and mental health guidelines must be seen in the context of emergency services, health services, and the multiple agencies engaged in Prevention, Preparation, Response and Recovery, and must be integrated with these systems across the PPRR framework.

**All hazards**

This section will consider the multiple potential hazards and their implications for those responding and those affected. These “HAZARDS” are usually conceptualised in terms of the acute incident, but may be insidious and uncertain in their onset, timing and duration. They may also occur on the background of other chronic adversities such as poverty, disadvantage, famine, drought or conflict. Disasters occurring so as to affect countries already in situations such as ongoing conflict are described as complex emergencies.

The categorisation of disasters has been:

“Natural” and “Human-Caused”. This latter includes technological disasters and attacks of terrorism. Ursano et al (2007) have provided an overview for the potential differential impact of these. In this handbook, three groupings are used, i.e. natural, technological, and terrorism disasters; acknowledging also that there may be diverse hazards in each of these.

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<th>Dimension</th>
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<td>Target basic social infrastructure</td>
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<td>Overwhelm health care systems</td>
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<td>Hoaxes/copycats</td>
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* Natural disaster, e.g., hurricanes, tornadoes, earthquakes.
* Technological disasters, e.g., nuclear leaks, toxic spills.
* Terrorism, e.g., bombings, hostage taking.


**A. Natural Disasters**

The impact of these will depend on the geography and populations of vulnerable regions. They include:
• **Storms, floods, cyclones, hurricanes, hailstorms, tornados**, and the like. There is usually extensive wind damage, dislocation, flooding and loss of property. There is a view that these natural hazards are more severe and frequent in relation to climate change, and more devastating in their human impact. This also relates to their impacts on diverse population centres as evidenced by the effects of many such disasters, including for instance floods in the UK, China, Pakistan and in the Australian context, the Queensland floods and Cyclone Yasi (2011); Cyclone Nargis (2008, Burma); Cyclone Larry (2006, Australia); Hurricane Katrina (2005); and Cyclone Orissa (1999, India).

• **Earthquakes (and possibly Tsunamis).** The severity of these disasters is evidenced by recent occurrences including the Japan earthquake and tsunami (2011); Christchurch, New Zealand earthquake (2011); the Haitian earthquake (2010); Pacific tsunami (2009); the Sichuan earthquake in southern China (2008); the Pakistan Kashmir earthquake (2005); South East Asian earthquake and Tsunami (2004); the Bam earthquake in Iran (2003); and the Armenian earthquake (1988). Huge death tolls and devastation of homes, communities and property are associated with these, as well as mass population displacements and loss of livelihood. Australian experience is more limited (e.g. Newcastle earthquake 1989).

• **Bushfires, forest and wildfires.** These appear to have been more severe and extensive, affecting rural populations and cities, for instance California and Australia (e.g. Ash Wednesday, 1983; Canberra, 2003) with the recent Victorian bushfires of 2009. These are also predicted to be more severe and uncontrollable with drying of regions with climate change.

• **Volcanic eruptions** are a further natural hazard with potentially devastating consequences, for instance Mount St Helens (1980), and more recently the extensive international consequences of the Eyjafjallajökull volcano eruption in Iceland on air traffic (2010).

• **Chronic natural disasters**, such as drought and famine, may have profound impacts on mental health.

• **Heatwaves.** In the Australian context heatwaves have been a significant cause of death from natural hazard, and could be considered in this context, just as extreme cold conditions could affect people in other geographical settings.

• **Climate Change** could be considered a “chronic” natural disaster or its consequences acute, such as extreme weather events. Nevertheless in this context the focus is on the more acute incidents of natural disasters and their mass impacts. It is likely to become increasingly important to take these background environmental influences into account.
As noted by Ursano et al (2007) there is often difficulty separating human caused and natural components when buildings or infrastructure are inadequate or population conglomerates develop in vulnerable settlements in high-risk areas.

B. Technological Disaster Hazards

- **Technological disasters: failures or accidents.** These have additional mental health effects related to the concern regarding potential aetiology related to human failures, or negligence, and to a degree, depending on circumstance. There may be many contributing factors however, for instance, extreme weather and transport accidents. They include:
  - **Transport failures and incidents** such as plane crashes, rail disasters, bridge collapse, building collapse. These are incidents when, for instance as with a plane crash, there are multiple technological possibilities, as well as the human possibility of error. These are usually acute incidents as with Australian examples of the Granville Rail disaster (1977) and others, Kempsey bus crash (1989) and the like, but there may be uncertainty regarding cause and casualties. Australians, as other nationals; may also be affected by these and other incidents occurring internationally.
  - **Transport disasters may also be the result of terrorism** as with Lockerbie bombing and crash, similarly with other technological incidents, and causes may be difficult to establish. Further those who are affected in transport incidents may be from diverse and even international communities. **Industrial accidents of diverse kinds including mining disasters, factory explosions, fires** etc, may be associated with structural systems, or safety requirements failures.
  - **Toxic effects of chemical or other hazards** or other “accidents” for instance industrial or system failures, as with Bhopal (India 1984) may result from negligence, accident or terrorism, leading to further levels of fear and uncertainty. It may not be easy to distinguish some of these incidents from deliberate harm.

C. Terrorism

Terrorism is human caused but discussed here separately because it is an intended and criminal activity with extensive and intended consequences for mental health.

While terrorism has a long history, the recent, major incidents have heightened its significance: the Mumbai hotel attacks; Bali bombings I and II; London and Madrid rail bombings; Beslan school siege and bombing; 9/11 World Trade Centre attacks, the Oklahoma bombing in the USA, and current ongoing or continuing threats including in Pakistan, Iraq, Afghanistan, and Israel, to name a few.
Terrorism has mental health impacts because

- It is unknown and uncertain in terms of timing, target and nature
- Fear and dread generated by the threat and the extensive media coverage affects broader populations, even nations
- Difficulties arise in relation to preventing, controlling and mitigating impacts and outcomes, so actions for safety and survival may be uncertain.

**Malevolent Intent.** The mental health impacts of terrorism are also increased by the fact that it is intended to cause death, destruction and epidemic fear.

There are many different forms, each with terrifying impact. These include but are not limited to:

- **Bombings**, explosions using a range of delivery mechanisms including Improvised Explosive Devices (IED) and suicide bombers, and even planes. The use of multiple, concurrent attacks is a further component.
- **Chemical, biological, radiological and nuclear threats**
  - **Chemical terrorism** is reflected by the Sarin gas attack on the Tokyo rail system. Some incidents may be difficult to distinguish from an accidental chemical release or spill.
  - **Biological terrorism**, as exemplified by the anthrax incidents in the US post 9/11, is also related to concerns about other organisms that could be weaponised, such as smallpox. These are encompassed in Australia by the concept of Security Sensitive Biological Agents. It may be difficult to distinguish some potential biological threats from an emerging infectious disease epidemic.
  - **Radiological/Nuclear terrorism.** Radioactive material might be included in a “dirty bomb” or IED or there may be nuclear threat through weapons, or attack on a nuclear power plant. These may also be difficult to distinguish from accidents, as with Chernobyl. They are the most greatly feared, even though the most unlikely.

There are many other potential forms including cyberterrorism, and agroterrorism. Cyberterrorism refers to the use of information technology by organisations or individuals to cause harm or disruption to computer systems or networks, for example: misuse of sensitive information; large scale attacks on information delivery or internet banking; or seizing control of telecommunications or transport infrastructure. Agroterrorism is defined by FEMA in the USA as “the malicious use of plant or animal pathogens to cause devastating disease in the agricultural sector”, including crops, livestock, fisheries etc; with impacts ranging from threatened food...
supply and human health costs; to effects on the food industry and related transport and economic systems; and natural ecosystems.

D. Disease Outbreaks and Epidemics

- **Pandemic Infectious Diseases** such as pandemic influenza may constitute another grouping of mass hazards. There may be difficulties with early detection, and the determination of the nature of such threats; the potential lethality and infectivity of the organisms; and the capacity to contain spread or protect populations. For instance biosecurity measures or vaccination or capacity for effective treatment in terms of available resources are important aspects of containing and managing such threats (e.g. antibiotics, antivirals, hospital facilities). There may also initially be uncertainty about whether its origin is a **spontaneous outbreak of disease**, or part of an **introduced attack**, i.e. **bioterrorism**.

- **Other Diseases** may affect large populations and constitute very significant population “Hazards”, such as HIV Aids in Africa and other developing countries, but these may not be considered a disaster, or rather possibly a “slow disaster”, like drought.

**Hazards Affected Populations**

Hazards are identified by the extent of their effects on human populations and the infrastructures of support. Such hazards can impact significantly in rural and remote areas, with relatively small populations, for instance with bioterrorism affecting livestock or agriculture / crops. However in city conglomerates mass death and destruction can affect greater numbers causing severe effects through the acute incident, and subsequently. Because of the potential health, social and economic impacts, the social disruption and costs, governments and institutions, public and private, as well as leaders and the population itself, need to be involved in prevention, preparation, response and recovery, as threat and situation require.

Human impacts will depend on the number of deaths and injuries, the individual and group vulnerabilities; the damage and destruction of homes, buildings, community and infrastructure; and in terms of societal, economic and political consequences. The range and severity of stressor exposures will be relevant for mental health; so that limiting these as far as is possible can contribute to lessening adverse mental health **outcomes**. These issues will be discussed in detail subsequently.

**Prevention, Preparation, Response and Recovery: PPRR**

These elements are useful in identifying the relevant strategies that may together lessen or mitigate many aspects of the hazard impacts in terms of possible adverse consequences.
Prevention
Aims: To prevent where possible disasters happening in the first place, or mitigating their severity and impacts.

Prevention strategies are built on knowledge of potential threats, their likelihood and potential impact. It is based on scientific studies and strategies such as prediction and likely impact of natural disasters and their cycles and possible mitigation; security initiatives and counter-terrorism; safety standards; for instance for buildings, infrastructure, etc., in terms of technological hazards. Flood mitigation, bushfire prevention where possible, vehicle safety standards and checks, could be included.

Mental health issues include the role of identifying the knowledge, attitudes and behaviours that assist risk recognition and behaviours undertaken to deal with potential hazard / disaster risk. Community engagement and action may be relevant to the development of disaster prevention and mitigation strategies. Trusted sources of information about threat and what can be done to mitigate it are central to this. Identifying the capacity for addressing such threats or hazards is one component, as is identifying vulnerable populations who may need to be protected. These strategies may assist with prevention, through preventing the disaster where this is possible, or preventing its impact on populations.

Preparation & Preparedness
Aims: To prepare individuals, organisations and communities through planning, actions, education and training to identify, respond and mitigate the impact of potential disaster.

This involves planning what to do in response to threats, engaging with relevant agencies, collaborating with regard to the various roles and responsibilities; developing a knowledge base about threats or actions necessary to mitigate or control potential hazard or disaster effects, and in particular knowledge of how to protect health, mental health and wellbeing. It should be formulated in a broad Mental Health Preparedness Plan dealing with the All Hazard framework (WHO-AIMS-E) and jurisdictional requirements.

Community engagement is frequently part of this process particularly when geographically localised or targeted threats are possible, but also more broadly. This aims to educate the community members so they can take necessary actions for themselves and their families as well as assisting neighbours and others, should a threat materialise. One element of this is a focus on enhancing community resilience.
Organisations and businesses may also prepare, for instance with business continuity plans and strengthening organisational resilience.

Information and communication strategies are also a critical part of preparedness; as they are throughout the PPRR All Hazard system. With respect to preparedness they specifically address preparedness actions, warning systems, the levels of risk and potential response that is required, and the necessary channels, dissemination and nature of the material communicated.

Plans need to be developed by government and other lead agencies, as well as communities. These should address preparation and actions to be taken in response: including guidance for collaboration with relevant agencies; roles and responsibilities to optimise processes and outcomes; the necessary education and training to equip responders and communities; resources that may be required; strategies for mobilisation of these in ways relevant to the specific hazard and to affected populations.

Exercises to test plans and build skills and competencies are also part of preparedness, as are capability audits.

Capacity building is an important element of preparedness in that planning and related strategies should be integrated into health, mental health and emergency systems so as to build capacity for emergency response for disaster, but also for day-to-day emergences and functioning.

Mental health systems should be involved throughout these preparation strategies, with engagement in planning, education and training, and exercises; as well as communication and information strategies and capacity building. Human and other resources are critical components. Mental health aspects include those relevant to enhancing resilience; communication strategies; engaging diverse communities, and community education options, for instance encouraging personal or family emergency plans; and identifying the specific needs of vulnerable populations. Planning; education and training of the mental health workforce; and exercising and testing are all central issues. These should be integrated with other health and emergency planning, and subsequent recovery planning processes.

Response
Aims: To optimise survival and safety, and to minimise death, injury, destruction, disruption and other adverse consequences.
This refers to the informal and formal actions to deal with the impact of a disaster: to contain this as far as possible; to mobilise the necessary resources; to protect affected populations and resources as far as is possible; to deal with the impact through the emergency so as to optimise survival, to deal with, and minimise death, injury, destruction and disruption.

First response occurs initially through the actions of affected populations who are “informal” first responders. Formal First Responders who have been trained in preparation for such incidents, include Police, Fire, Ambulance, Health; and other emergency services. For acute incidents Police act to control and contain the site and manage crowds. They may also be called upon to co-ordinate evacuation and protect from the convergence of those wishing to see what has happened or to help. In the event of possible terrorism the Police may declare the site a crime scene. Fire services are involved in the physical aspects of rescue. There are also Urban Search and Rescue teams (USAR). Ambulance services make emergency assessment and triage decisions and transport those affected to hospital emergency departments or casualty clearing stations. These processes are provided in ways that will be defined by the nature of the disaster, its severity, the potential ongoing threat and organisational tasking. A very clear requirement is that those responding should not themselves become casualties, i.e. they must not place themselves at risk of injury or death during this emergency response.

Health system response to the emergency may include the deployment of necessary expertise to the scene, in terms of specialist medical and nursing staff, for instance emergency physicians, surgeons and nurses, retrieval teams, surgical teams, public health teams and the like, as well as the preparation of hospitals to receive casualties, or to deal with self-referred affected persons.

**Mental health expertise and consultation** informs this process as well as dealing with acute mental health needs, triage; and also the support of personnel and others.

Throughout this period there is the assessment of the extent of the injury, damage, destruction, critical infrastructure disruption and so forth. These assessments inform mental health aspects of management of the emergency and set a basis for the recovery planning, for mental health and all relevant health, welfare and other agencies.

The duration of the emergency phase and processes to step-down will depend on the nature of the incident and its effects, including health effects, and capacity to achieve a level of security. The concept of capacity to manage the **surge** of health response required for the emergency is important, particularly if there is a need to maintain this at high levels because of prolonged
emergency demand. A further critical challenge is that of sustainability through to the recovery phase, when the demands of existing core business are already substantial in most health systems.

Transition to recovery phases needs to be carefully managed as the command and control of the emergency phase shifts to different organisational responsibility and with co-ordination and collaboration governance of the recovery process.

**Mental Health Implications**

Specific mental health response during the emergency requires strategies such as Psychological First Aid for the acutely distressed; triage and supportive management; consultative engagement with leaders and relevant organisations; and planning for potential implementation of population health and clinical strategies to meet mental health need in the aftermath. It also includes the protection and management through the emergency, as far as is possible, of those with pre-existing mental illnesses and other vulnerabilities; and “business continuity” support where possible for the ongoing provision of essential mental health services, for example through acute inpatient units.

**Recovery**

_Aims: The aims are to facilitate return of individuals, communities and organisations to optimal functioning: to effectively intervene to prevent, mitigate and effectively manage threat and negative consequences, including adverse mental health, social and other outcomes; and to facilitate future adaptation._

The transition to recovery starts once the emergency has been brought under control. It involves diverse agencies including government, welfare, housing, health and others; and non-government and community agencies. Affected communities and populations play a critical role in defining and managing recovery processes. Specific authorities may be established to co-ordinate and facilitate such processes, particularly after major and mass incidents.
**Mental Health Implications**

Mental health professionals and services will play significant roles, depending on the nature of the health impacts of the particular incident. This should be based on a Mental Health Recovery Plan for the specific disaster and in line with jurisdictional processes.

Roles for mental health include: providing information relevant to mental health and wellbeing and outreach such as call-lines, web based information, or outreach centres; protecting the mental health and wellbeing of children affected and their families; support for those bereaved, for instance, related to the identification of the deceased and subsequent needs; support for the physical welfare and associated mental health needs of the injured including the psychologically injured, in partnership with hospital and, as appropriate, rehabilitation systems; dealing with specific health concerns such as those associated with fears of health impacts of chemical, biological or other forms of terrorism, or accident; addressing ongoing mental health impacts of the incident or its consequences such as trauma, loss and depressive syndromes; managing the effects of the disaster on those with pre-existing mental illnesses; addressing the needs of vulnerable groups including those previously traumatised, the aged and so forth.

The sustainability of health systems response through the more prolonged period, and its coordination across public and private sectors to meet needs is also important, often supported initially by additional government funding for these mental health needs.

Integrating mental health with the range of practical needs is a further challenge, as is the provision of accessible outreach and other services.

A range of review processes, including operational debriefs, inquiries and the like is usual. These aim to identify what has been effective, what has been problematic, and to provide information to inform future planning. Formal research and evaluation may also be carried out. Reports include those of “lessons learnt”.
Overview
These strategies and stages are not necessarily clear-cut or rigid. They allow flexibility dependent on the nature of the threat, but with a core hazard approach on which additional elements can be built as the specific nature of the hazards and impacts are progressively established.

Mental health should be a key strategic element through each of these stages. It should be integrated with other aspects of Prevention, Preparation, Response and Recovery, particularly health; while at the same time dealing with the needs of people at risk of mental health consequences or with pre-existing mental health problems. It should specifically deal with, and be closely integrated with recognition of and response to health effects.

All Hazard Disaster: Reactions Over Time
The human reaction to disaster evolves over time. There may be initial shock, then intense early reaction, which gradually settles. The early period is often called the “honeymoon” phase with altruistic behaviours, affiliative responses or coming together of people helping one another, and supporting, caring for and comforting each other. Those separated from family members try to contact them; seeking reunion, or searching in the hope they have not been injured or killed. Some may wander dazed across sites of extensive destruction, or be stunned and place themselves at further risk. This is sometimes called the “disaster syndrome”.

The majority of people manage through such circumstances, help others, seek safety, security, shelter, come together with family, and care for those injured, and try to support the survival of others. These issues are central in the early stages. If home or property is destroyed people may seek belongings, and if the site is safe, as somewhere to shelter.

Progressively, and with varying timelines, people move to return to the new ‘normality’ and make efforts to re-establish their lives, deal with consequences, and make meaning of what has happened.

Throughout there are complex psychological and social processes, that may have mental health implications. There is generally resilience, in that the majority of those affected do not develop mental health related morbidity despite exposure to numerous stressors. Nevertheless a significant number may develop short term or more chronic problems. These will be discussed throughout this handbook. People affected by the disaster may of course also experience other health problems.
Figure 1.2 Phases of Disaster (adapted from Zunih & Myers, 2000)

Diagram from 'Textbook of Disaster Psychiatry', (Ursano et al 2007), Ch 1 'Individual and Community Responses to Disasters', page 8.
**Mental Health Effects**

Research carried out with respect to ‘disasters’ across a range of hazards has identified some common themes in terms of patterns of morbidity. These include:

- **Distress** which may be associated with intense emotions and reactive behaviours
- **Reactive phenomena** – traumatic stress reactions, grief reactions, separation reactions, safety concerns, fear reactions, cognitive disruptions, and others.
- **Mental health symptoms occur across a spectrum** to the level of disorders, particularly disorders such as those related to psychological trauma and loss, for instance PTSD, Anxiety Disorders, Depression, Complicated or Prolonged Grief.
- **Substance use**, especially alcohol, but also smoking, marijuana and other drugs may increase, potentially to the level of abuse and disorder
- **Health risk behaviours** and general health effects including sleep difficulties, lack of appetite or nutritional problems, lack of exercise, or health preoccupations in terms of possible toxic or other effects
- **Health conditions** consequent to injury or exposure or infection, which may be related to the physical effects of the incident or aftermath, and / or consequences of the stressor exposures.
- **Relationship difficulties** and changes, which may result from any of the above, or the intensity of the experience and attachments made in the emergency, or stressor factors or pressures of the aftermath (e.g. crowded, temporary housing)
- **Functional impairments** in terms of work or other roles (e.g. learning for students) with the effects of acute or long term consequences, or as a result of mental health morbidity influencing capacity, concentration etc
- **Exacerbation** of pre-existing illnesses due to the experience, loss of medication and so forth
- **Resilience** is viewed as the capacity to “bounce back” after exposure to a hazard.

While the majority of people are resilient, trajectories through time may indicate variable courses, some with persistent or delayed effects, depending on a range of factors including additional stressors post incident or other risk or protective factors.

There is also the phenomenon of **post-traumatic growth** where those affected report they have gained personally in some way through their capacity to deal with the traumatic event. Resilience and post-traumatic growth reflect different adaptive patterns and do not correlate in their
References


Chapter 2 - Prevention: Preventing disasters and their impact

Aims
To identify strategies to prevent, where possible, disasters, and their impacts, across the All Hazard framework and to identify strategies to prevent, where possible, mental health impacts of disaster.
To facilitate understanding of risk, its relevance for human behaviour in relation to disasters, and management from prevention though to preparation, response and recovery.

Broad Prevention Strategies
These are different for different types of disaster hazard. Various prevention strategies may contribute to mitigating the potential for disasters to occur, or lessen the specific hazard impacts on human populations and physical infrastructure. These are discussed below.

A. Natural Disasters: Possible prevention strategies
- Guidelines and legislation governing where new communities can be built, such as avoiding sites vulnerable to disaster, e.g. floods, earthquakes.
- Advice and education to influence human behaviours could potentially decrease risk of natural disaster, for instance, bushfires, floods.
- Many natural disasters occur seasonally such as cyclones, hurricanes. Prevention of the disaster is not possible but risk communication and protective actions may lessen impact.
- Natural disasters such as earthquakes may be very difficult to predict although fault lines such as the San Andreas Fault line indicate particularly vulnerable areas. Preventing population density from increasing in such vulnerable settings and building earthquake resistant buildings may lessen the disaster impact in some circumstances.
B. Technological Disasters: Possible Prevention Strategies

These disasters usually arise from accident, or technological or human failures, at either system or individual level. They tend to affect a range of populations – for example, a local area population with a building collapse or factory explosion, or people from many different areas with a transport disaster.

- Safety standards to buildings, infrastructure, transport and other systems are intended to protect against structural or system failure that may cause death, injury or loss.
- Human behaviour may contribute through accident, negligence, or failure; by not adequately identifying potential risks, and having inadequate knowledge and training to manage these.

Mental Health Implications and Actions

Consultancy role in disaster mitigation, advice:

i. Develop understanding of the psychological and social barriers to effective prevention strategies at community and individual levels, addressing knowledge, familiarity and disaster ‘cultures’, as well as psychosocial processes that might facilitate effective prevention behaviours.

ii. Contribute to communication strategies to facilitate community and individual engagement and actions to increase uptake of prevention, and protection of self, family, property, organisations.

iii. Contribute, with other relevant agencies, to community engagement and resilience enhancement to strengthen communities’ capacities to prevent or manage the likelihood of disaster where possible, and strengthen adaptation, in terms of mental health and relevant personal and community resources so as to decrease impact should the disaster occur.

iv. Identifying vulnerable populations including people with pre-existing mental illnesses or other physical health problems and disabilities; those previously traumatised; or socially disadvantaged; or culturally and linguistically diverse; and protection strategies to mitigate possible disaster impacts.
• Potentially affected populations may have little opportunity to contribute to prevention unless they can be involved in protection roles such as in safety monitoring; development of and commitment to safety standards; communication strategies etc.

• Alternatively individuals, organizations or populations may, usually inadvertently, contribute to increased risk through their role in systems or through negligence or accidental human failure. They may have a lack of knowledge and skills necessary to fulfil roles that will safely manage the technological systems for which they are responsible, or may, for various reasons, be unable to do so.

**Mental Health Implications**

Population leaders, organisations communities and individual engagement and education

i. Enhancing knowledge and understanding of risk and self and other contributions to managing risk and lessening adverse outcomes is important at management and organisational system level, as well as for individuals in terms of their own lives and behaviours. Recognition of risk realities, and contributing to community and organisational standards for safety are important. However it is also vital to recognise that some risk-taking per se is an essential component of human and community development.

ii. Recognising that more open discussion and understanding of risk and more realistic of acknowledgement that not all “risks” can be removed, is likely to be helpful in broader adaptation, and lessen excessive fears about risk and safety

iii. Community engagement with knowledge and resilience building can assist with community and organisational commitment to “safe” systems to protect against such disasters, and community efficacy in the face of adversity

iv. Individuals’ knowledge of risk and identification of safety requirements to protect against such incidents should be an accepted component of adult responsibilities, for instance following requirements for airline safety, safe building etc.
C. Terrorism: Possible Prevention Strategies

Terrorism prevention is ultimately reliant on the capacity to understand and prevent radicalisation and the range of terrorism-focused intents and behaviours.

Terrorism threats and incidents can involve multiple possibilities through the different techniques such as explosions (bombing etc); chemical; biological; radiological and nuclear threat; cyberterrorism attacking computer systems and communication; agroterrorism and multiple other forms. Terrorism aims to impact on populations by threat as well as attack; by uncertainty and associated fear; and aims to serve political or other purposes. Government agencies, particularly the Australian Government play major roles in prevention strategies. Terrorism is a criminal activity.

- Security agencies play a major role in preventing terrorism through identifying those who may be likely to mount such attacks, and acting to prevent them. Monitoring and surveillance and a range of strategies are in place in Australia and elsewhere (First National Security Statement, Australian Government, 2008).
- Preventing terrorism may also involve preventing factors that contribute such as radicalisation, for instance in relation to perceived exclusion from societies’ benefits, or what is perceived as “just cause”. Access to means may also be a focus of prevention – for instance weapons, chemicals for explosives, or potentially radioactive materials.
- Terrorism has great impact through the death and destruction it threatens and may deliver. However its effects in creating fear and dread may be amplified by media coverage with the generation of fear and uncertainty, and such effects are potentially far more extensive.
- Media engagement can contribute to more effective communication strategies through active, accurate and trusted sources and delivery, and avoiding amplification, excessive focus or messages that can contribute to excessive fear.
**Mental Health Implications**

**Population/Community Engagement/Education**

i. Understanding community perceptions of terrorism and the fear and emotional and behavioural changes associated with these, including dread and uncertainty, can be important. Psychological and social expertise can be utilised to assist communities to be inclusive, support one another and to manage and mitigate fears. Information and communication can help people to understand what governments and security agencies are doing to prevent terrorism, and what they themselves can do.

ii. Assisting communities, individuals and families to “live well” despite uncertain threat; to develop strategies to handle this and not have their mental health adversely affected, nor their future and quality of life, is important. Community engagement to build skills and enhance resilience can assist this.

iii. Identifying populations who may be particularly vulnerable and mitigating their dread through the development of education and psychosocial strategies that can also assist in everyday life is important, for instance:

   - Distress and stress management techniques
   - Building knowledge, information access and communication options about self and community actions that can be helpful
   - Confidence and competence regarding effective actions for prevention of harm to self and others i.e. strategies for protection.

iv. Treatment for those where possible threat, alone, has had adverse mental health impacts such as incorporation into delusional systems; increased anxiety symptoms; depression / hopelessness; exacerbation of trauma syndromes

v. Children may be more fearful and can be helped by fear management strategies, helping them and their parents to focus on their lives and to understand the low likelihood of an attack affecting them; and knowledge, management and parental education / school-based strategies to mitigate such fears. It is also important that children are supported by families, schools and communities to understand that they should not be fearful of those who are different, as excessive focus or threat may lead to excessive anxiety, particularly if there is a great deal of media focus.
D. Disease, Pandemic Disasters: Potential Prevention Strategies

Disease threat such as pandemic influenza may seem unreal or exaggerated unless close in terms of proximity to infected persons, or there is evidence of profound health consequences such as deaths of the young, of children, high mortality rates and infectiousness. There is a common expectation that it’s “not going to happen to me or mine”. For some however there may be a heightened level of fear, affecting life and behaviour. Media and communication strategies play a significant role in how a particular disease is understood by the public and may influence preventive actions.

- Public education about potential for a disease-related disaster can play a major role in prevention, for instance with guidance about relevant behaviours for diminishing spread of disease – i.e. behavioural aspects of infection control
- Vaccination or other biological prevention strategies can be carried out, provided such agents exist or can be developed for the specific disease in time to control its spread and protect populations
- Global disease surveillance strategies through the World Health Organisation and countries’ monitoring, and at local and regional levels can assist prevention by identifying the nature of the organism / disease, it’s method and spread, core characteristics such as infectivity and lethality. Public health programs then have bases for action, including advice to the government, agencies, and the public regarding necessary strategies to prevent spread, contain the epidemic, and treat those affected.

Mental Health Implications

Partnership with Public Health and Health Care to facilitate preventive behaviours

i. Understanding psychological aspects of disease threat, and fears of contagion, as well as psychosocial aspects of behaviours for protecting themselves
ii. Assisting services; communities and workers to understand and manage these aspects
iii. Developing strategies for people with pre-existing mental illness to protect them from such threats
iv. Addressing mental health impacts of such disease threat, such as trauma syndromes, health anxieties and depression.
v. Strategies to assist and support health workforce and others at risk populations and institutions.
Mental health: strategies to prevent or mitigate disaster impact
Population Health: Leadership, Community Engagement, Education

Across all hazards mental health responsibilities and roles require the following:

1. **Understanding the nature of diverse threats** and the implications for mental health in terms of
   - Potential education and communication strategies that may assist people to understand disaster and hazards, the potential risks of these diverse threats more broadly; what actions are available to mitigate such threats and the roles of relevant agencies; and what can people do themselves to lessen risk. These strategies should be shaped so as not to increase anxious preoccupations.
   - Possible mental health effects and needs in the aftermath

2. **Understanding Risk.** Public education about risk and how people live with and manage perceived risk effectively, as well as the implications for preventing disasters or their effects.
   - “Risks” are core elements of human and societal existence.
   - Risk taking and risk experience are intrinsic aspects of human development and life
   - How risk is perceived
   - Factors influencing response to perceived risk
   - Psychosocial factors that may influence risk perception and individual, group and community responses to risk
   - Risk and decision making
   - Emotional aspects of risk perception including fear, excitement, helplessness, anger, drive to act, etc.
   - Factors associated with optimal response to perceived risk at individual, group and community levels
   - Media and other influences that may amplify or attenuate risk perception

These issues are broadly relevant as well as specifically in terms of their implication for a wide range of human circumstances in day-to-day life; in emergencies in personal and family contexts; and specifically all disaster hazards.

3. **Fear and dread:** These are generated through perception of the severity of risk to self and others associated with certain threats. Mental health knowledge can inform how such emotions may be prevented, mitigated or managed for individuals and groups, and balanced
by realistic threat appraisal and response. These are likely to be lessened by better knowledge of government and other prevention strategies, what is being done, and what people can do themselves for prevention and protection / mitigation.

Mental health can contribute to

4. **Resilience building**: developing an understanding of the psychosocial aspects of resilience, i.e. enhancing strengths and competencies, mental health protection elements including mutual support and connectedness; and the engagement of individuals, communities and organizations to work together to facilitate prevention and management of potential threat.

5. **Communication**: understanding of psychosocial aspects and risk can assist in the development of the ‘Disaster Information and Communication Strategy’. This needs to be balanced so that people do not become more anxious, fearful, “risk-averse” i.e. overstating risk and intense avoidance of all potential threat circumstances.

6. **Identification of populations who may be more vulnerable**: This can help to mitigate risk of adverse effects on mental health through addressing fears, concerns and behavioural reactions in terms of increasing understanding of
   a. risk and threat as these affect people
   b. dealing with disaster threat and impact
   c. communication and information strategies
   d. information and advice about the protection of mental health

7. **Capacity building**: Such strategies, specifically enhancing knowledge and resilience for individuals and communities, could help contribute to capacity to deal with everyday stressors and life challenges in positive ways, i.e. the adversities of people’s lives. This could be shaped in ways that would not lead to excessive disaster preoccupation or focus, taking over people’s lives, and could enhance the capacity to focus on the future, and positive opportunities including those with risk, in positive ways.

**Risk perception and response**

Disasters, hazards of all kinds, inevitably involve threat: the possibility that a disaster is imminent will heighten risk for people, their families and communities.

The word terrorism particularly evokes threat. People weigh risk of such an event occurring in terms of likelihood, and potential impacts, and whether they themselves or their loved ones are likely to be affected. Paul Slovic (1987) is a major contributor to the theoretical understanding of how people assess risk, and the research delineating how seriously it is viewed. This work makes clear that people perceive and respond to risk in terms of not only the quantitative or actuarial likelihood, but also powerfully, the emotional or affective implications. This means that their decisions will be
weighted by fears and ‘gut instincts’ about threat. If outcomes are perceived as more terrible, even if unlikely, this is likely to influence how people respond and the decisions they make based on this assessment (see Figure 2.1). Risk analysis has been dealt with in terms of potential mortality, risk of disease, such as cancer, risk of accidents and so forth. Risk perceptions will influence behaviours, including those relevant to prevention as well as the dealing with the potential disaster should it occur. These issues are dealt with in detail below.

Risk understanding needs to be taken through every level of disaster all hazard response i.e.

**Prevention:**

- Understanding risk or different hazards and strategies that may lessen the likelihood of the threat materialising into a disaster as well as
- Understanding strategies that can be put in place to mitigate its adverse effects / impacts should it occur.

**Preparation:**

- Monitoring risk
- Understanding likelihood and planning for strategies to manage the hazard / disaster should it occur
- Developing systems of preparedness including resources, workforce, education and training, risk monitoring, communication and warning strategies, and capacity for response if threat escalates, including response options, and protection of self and others.

**Response**

- Dealing with risk to life and safety, maximising survival and minimizing injury & destruction; and screening / protecting from ongoing risk, threat or consequences
- Monitoring risk or certain threat, and consequences
- Communicating protective strategies and warnings for safety / survival, e.g. evacuation, shelter
- Minimising potential harms

**Recovery**

- Monitoring ongoing, new or recurrent risk and threat
- Mitigating consequence through population, clinical or other strategies to manage perceptions of and actual risk to health or mental health. This could include assessment and treatment, resource provision and so forth.
With respect to Prevention, risk of potential disaster may be seen as distant, in terms of space and time, particularly when individuals are taken up with the concerns of everyday life. Slovic has also suggested that people have a “finite pool of worries”, and thus something seen as distant and potentially unlikely may not have priority. This is the more so if people do not believe that they can take effective action to prevent it; that it may be an “act of god” (natural disaster) or “of man” (technological or terrorism) or “accidental” or “intended”. The potential time or costs required for prevention or preparedness resources and commitment to act may not seem “worth it”, because the risk is perceived as low; not urgent or action is not needed, and seen as worthwhile; and the threat is viewed as not likely to affect oneself. There may be a personal belief that this happens “to others, not me”; or that “they” should do it e.g. government. Experience of a disaster may alter this. For example with cyclones, floods, familiarity may contribute to beliefs such as – “I can deal with this” (did so before), “I’ll be ok, my family won’t be affected”. Or alternatively previous experience may be associated with fear, preoccupation with risk and avoidance, as has occurred for some following terrorism experiences. Personal styles of adapting, resilience, vulnerability and circumstance may all need to be taken into account.

“Risk” Concepts and Significance for Disaster

The following section is adapted from a section of “CBRN SAFE: Chemical, Biological, Radiological & Nuclear Terrorism: A Review of the Scientific Literature” (Raphael, 2008).

Knowledge about risk, about the actual likelihood of a threat eventuating is important, but it will be weighed differently if the consequences are catastrophic, i.e. if they are associated with great dread, potential for death. Slovic and others have shown that individuals assess risk both deliberatively, using knowledge and scientific information, and experientially. Experiential assessment is “automatic”, rapid and linked to a person’s feeling or affective response to the threat. Research supports these concepts, suggesting that analysis of risk likelihood may be optimal when both processes are used. Lerner et al. (2003) have shown how different feeling states influence risk and decision making as a consequence. Anger after 9/11 made those experiencing it more optimistic about future risk and more likely to respond in taking risk, and with retribution. Fear was associated with more pessimistic response and more constrained, avoidant behaviours. Anger is likely to lead to more causal attributions than is sadness.

How scientific information about threat and risk is communicated will also influence response. If sources are not trusted, or present differing interpretations, the information may not be readily accepted, and the situation potentially viewed as more threatening. Advice regarding actions to take may not be trusted, potentially leading to less compliance. In addition the affective or
emotional component will be influenced by previous experience, for instance possibly imagery of potential horrific consequences (Slovic and Peters 2006). “Risk as feelings” as a concept is an important component in judging possible decision making and behavioural response (Loewenstein et al., 2001), particularly as fear is likely to peak just before a decision is made.

Fig. 2.1: Evaluation systems affecting decision-making and response in low and high threat situations (Adapted from Loewenstein et al., 2001)

Stein et al., (2004) investigated reactions to bioterrorism, and noted that perceived risk was greater for biological and radiological threat than chemical, and all were seen as greater threat than conventional attacks. Fear and anxiety were common responses to perceived threat, and frequently lead to health care presentations, acutely and in the longer term.

Not only does risk analysis deal with the possibility of death and destruction, and the potential immediacy, but also other possible harms such as “physical, social, political, economic, cultural and psychological harms” (Slovic, 2002 p.425). Risk analysis, he suggests, should be supplemented by “vulnerability analysis” i.e. the potential vulnerabilities that may increase the impact of the threat, or the effects if may have, for instance on different populations.

Risk perceptions may differ in terms of risk generally, for instance the risk for one’s country and the likelihood of being personally impacted by a threat such as terrorism, with most studies showing that even when both experts and lay people consider that an attack may be likely, they usually do
not see it as being so likely to affect themselves. This may be a way of psychologically distancing oneself from such horrors. Furthermore the uncontrollability may be accepted where there is “continuous” threat as in Israel, as this is seen as the only way of coping (Somer et al., 2005).

**Risk Perception**

- Actuarial Risk / Actual
- Potential for Catastrophe, Severe Consequence
- Potential for Other Harms, Vulnerability
- Risk as Feelings: anger & fear
- Weighing Risk; Deliberative and Experiential
- Risk Communication
- Risk Amplification / Attenuation
- Response, Decision Making and Behaviours

**Risk amplification** (Kasperson et al., 1988) is an important concept. This suggests that risks assessed as minor by experts may still result in strong public concerns and significant social and economic impacts. These researchers postulate that the risk is amplified in two stages: the transfer of information about the risk, and in the way society responds to it. The information about risk is interpreted at a number of “stations” which may amplify or attenuate it, from the scientist, to the news media, to cultural and interpersonal groups. The response may also be amplified in a variety of behavioural responses, which can add further impacts. The messages of the risk can be changed / perceived variably and transmitted variably. Rumour may feed into such processes, or result from them. Fear in response to the amplified message may influence further communication. There may be a contagion of fear leading to overreaction or alternatively, attenuation of fear, leading to lack of appropriate response.

**Understanding risk** is a critical aspect of prevention, planning for and response to disaster threat, to “all hazards” including terrorist incidents. Prevention and management of risk and threat involve effective communication strategies, as suggested by the Institute of Medicine report (2003).

Encompassing the two domains that influence risk perception, i.e. deliberative and experiential,
requires knowledge about people’s potential response in these frameworks and educating them to incorporate such understandings into response strategies.

Fig. 2.2: Risk & Feelings: Common Emotional Reactions & Behavioural Tendencies

| Fear     | • Conservative responses e.g. avoidance, withdrawal  
          | • Pessimistic re future |
|----------|------------------------------------------------------|
| Anger    | • Externalising responses e.g. risk taking           
          | • More causal thinking e.g. blaming, retribution     
          | • Optimistic re Future                               |
| Sadness  | • Conservative responses                             
          | • Less causal (‘black & white’) thinking             |

Data gathered prior to any hazard threat provide a basis for modelling potential response patterns, and scenarios of threat can be used alongside this to assist planning, as suggested by Fischhoff et al. (2006), in terms of planning for response to pandemic influenza. This may be especially relevant for bioterrorism but also other threats, including natural disasters, technological disasters and terrorism in its various forms.

**Risk Communication: Information and risk management**

Risk communication research in recent years has tended to focus on terrorism, particularly since 9/11. However risk perception and response are relevant to all disasters.

Risk communication requires a number of key elements, identified for instance in reports such as those of the Institute of Medicine (2003) and others (Glik, 2007). These key elements can diminish anxiety and promote effective response. While it is accepted that there may be logical analysis of possible risk, as well as the emotive response in terms of “risk as feelings”, the communication of risk may be influenced by the trust placed in experts, as well as recognition of the different views they may bring, as highlighted by a recent review (Rogers et al., 2007). These authors note that politics may be a third element influencing both risk perception and its communication. There may also be a failure to recognise what it is that people are concerned about. While terrorism fears are a significant issue, health fears about specific types of terrorism, such as chemical, biological, radiological and nuclear are also a further threat. Reassurance about these may be difficult until the nature of the agent, dose and effects are clear, as well as the levels of exposure. It has also been
suggested that communication is not only about risk, it is also about communicating about how people can protect themselves and be safe should the possible threat lead to a major incident. Capacity to communicate honestly about uncertainty is part of this. Trust is central, but if lost may be difficult to replace and is likely to add to negative perceptions. Significantly, it is helpful if research sources can provide some guidance as to what the public know generally, what they want to know about such terrorism and about the government policies which inform response (Rogers et al., 2007). Ultimately, however, it is trust which is central to effective communication.

There is often a tacit assumption that the communication of risk may lead to panic, but most evidence indicates that this is not the case (Auf der Heide, 2004; Sheppard et al., 2006). Nevertheless, in response to threats such as chemical, biological or radiological exposure, people may self evacuate from areas of perceived danger in large numbers. This applies should such exposures occur accidentally, for instance a chemical spill, disease spread or radiation leakage. It is likely to be heightened if there is the additional threat of malevolent intent with terrorism. Similarly, people who fear they have been exposed may rapidly seek emergency medical assessment / care, potentially in numbers that may overwhelm health care facilities. While this is not mass panic, it may represent an over-response to perceived threat of exposure and perhaps a contagion of fear. It also requires specific management that may involve communication, leadership and other strategies to deal with perceived risk.

Evidence for this can be seen in the ratio of directly affected people (i.e. with diagnosable illness or toxic effects) to those presenting for screening or assessment, but for whom no physical findings may be evident.

Based upon scenarios such as the sarin gas attacks in Tokyo, the US Department of Defence estimates that a CBRN weapon attack would produce at least five ‘psychological casualties’ for every one physical casualty (Warwick, 2001), indicating that fears regarding exposure, rather than direct exposure itself, may constitute a greater public health impact. Other authors have suggested that, in a large-scale event, this ratio could be as high as 50:1 (Stein et al, 2004).

These issues highlight the critical need for effective risk communication. Principles to inform this have been identified in several comprehensive reports (Ursano et al., 2004; US Dept of Health & Human Services, 2003; Institute of Medicine, 2003; Glik, 2007). Following such principles, it is suggested, can diminish anxiety, promote effective response and potentially minimise adverse outcomes.
Leadership:
- Trained & Educated, Effective
- Compassionate, Hopeful
- Capacity to Contain, Deal with Uncertainty
- Capacity to identify appropriate actions

Information:
- Accurate, clear, simple language, honest in terms of what is known, what is uncertain
- “Trusted” Source:
  - Repeated and Multiple Channels e.g. ABC local radio, phone networks
  - Deals with Controversy
  - Takes into account literacy level, language needs and culturally appropriate information provision

Two Way Iterative Communication with Affected People and Communities
- Build Information Development & Response
- Response to Queries with what is Known/Not Known
- Advice regarding Risk, Threat
  - What to Do, to be safe, protected, what those affected can do
  - What Others are Doing to deal with Threat

Information Process:
- Updating Regularly: How & when
- Validate & Recognise Peoples experience
- Compassionate, Hopeful, Realities

Leadership & Transition to Local Leaders
- Community Engagement
- Information Sources, Centres
- Updates: Shorter & Longer Term

Information & Action
- Identification of actions, Reporting outcomes, What is Next
- Recognise Achievement,
- Future Ongoing Challenges for Individuals & Communities

Adapted from Tinker and Vaughn, 2004, p.49

Effective information and communication strategies, particularly if supported by good leadership are likely to lessen fear and dread, particularly if the strategy involves a two-way process and sustains
the hope and resilience of most people and communities, through recognising their strengths. This was well exemplified by the leadership and communication of Anna Bligh, Premier of Queensland during the 2011 floods and Cyclone Yasi.

**Mental Health Goals: risk perception & response**

Mental health workforces including leaders and practitioners involved in potential disaster PPRR should be able to demonstrate/describe:

i. Knowledge and skills regarding factors influencing perception of risk, including actual risk, risk over time, and as perceived

ii. Baseline knowledge about factors influencing decision making about potential response
   - Knowledge of threat, e.g. types of disaster terrorism
   - Affective response to risk / threat – “gut instinct”
   - Knowledge of actions that can mitigate risk and how to enhance the capacity to act effectively in the face of risk
   - Other actions / information needed regarding hazards and risk
   - Information about relevance for self and others at different stages of PPRR

iii. Emotional reactions and risk perception and response
   - Fear, anxiety
   - Anger
   - Positive emotions

**Information and communication strategies**

Information and communication are central to all aspects of disaster management and disaster mental health workers need to understand the core elements of information and communication strategies including but not limited to: different communication messages relevant to specific disaster threats; and the importance of establishing trusted communication and information flow about disaster generally. This is critical aspect of PPRR and should be in place before any disaster occurs, so that leaders and experts can become familiar and trusted sources. Language, context, communication channels, information format, comprehension and impact should be researched and established beforehand. In the era of multiple and often competing sets of information on particular threats, it is critical that trusted sources are developed, and information is provided in clear,
understandable ways and in relevant languages. An information process also needs to be established i.e. regular appropriate information, clear meaning and potential actions (e.g. government actions and what community members can do).

Information and communication strategies should be informed by an understanding of human behaviours, how to enhance responsiveness, cognitive processing and emotional factors influencing decision making and potential actions. It should reflect cultural themes and psychosocial understanding and be informed by appropriate research. Information, communication and risk management are critical to all aspects of disaster management, and particularly relevant for the mental health components and implications.

Information about and communication of risk are of course, aimed to facilitate optimum response. When response to such threat requires certain actions to effectively address or manage the risk / threat, communication needs to present options that are feasible or best for safe outcomes. This range of options needs to be informed by the capacity to act, to carry them out and what will / is being done to assist, particularly for those whose capacity to act is limited.
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Chapter 3 - Preparation: Preparedness

Preparation describes the activities that are undertaken to protect against, warn about and respond to a potential disaster, should it occur.

Aims
To identify key elements of disaster/all hazard preparedness strategies generally; to describe their purpose and potential modes of action in helping to mitigate the impact of the hazard and in enhancing response

This chapter will deal with general elements of preparedness. It will then specifically address mental health and psychosocial aspects of preparedness.

Rationale for Preparedness
The World Health Organisation has identified the importance of emergency preparedness for the health sector and communities (WHO 2008) and related capacity building. These expert consultations emphasised the importance of preparedness at national levels, across sectors and agencies, and aimed at the multiplicity of hazards. This report recommended that preparedness should be:

- Collaborative across health and other sectors, interagency and intersectoral
- Continuous
- Supported with education and training activities
- Reflected in specific planning, guidelines and standards resources
- Informed by data and knowledge management e.g. information centres and coordinators

This review recognises the importance of:

- Changing environments and threats to public health
- Potential for mass casualties and the need for systems to manage this type of incident
- Promoting disaster resilient hospitals and other health facilities and systems with “safe” hospitals being one important aspect
- Human resource development with focused education and training
- Community engagement and preparation using networks to build health and societal resilience
- Education, information and knowledge more broadly e.g. systematic information provision to enhance understanding and action
- Collection and analysis of data and its dissemination, to contribute to ongoing preparedness
This chapter addresses the preparation strategies that are or may be developed by Governments and lead agencies; and by individuals, families, organisations and communities; to prepare for potential disasters. It applies to the range of possible hazards in the All Hazard framework. It will address behavioural and psychosocial aspects, as well as specific mental health elements of preparedness.

**Preparedness depends on:**

- **Assessment of risk** i.e.
  - Likelihood of particular disaster occurring
  - Capacity to identify timing i.e. when, predictability
  - Populations potentially affected
  - Types of possible impact of different disaster hazards
- **Capacity for action to mitigate risk and enhance response**
  - Physical actions and potential for stopping the threatened hazard
  - Protecting populations e.g. shelter, safe places, evacuation
  - Warning systems
  - Resources; human and physical, identified and prepared
  - Knowledge of actions that will be helpful and protective.
- **Planning for response – preparedness plans**
  - Formal Plans developed by governments and lead disaster relevant agencies
  - Community plans
  - Personal and family plans
  - Organisational plans e.g. schools, hospitals, businesses and industry

**Preparedness requirements will change over time depending on potential timing, severity and extent of threat, and nature of the hazard**

There will be a range through the spectrum of:

- **General preparedness** – broad – no threat currently identified
- **More focused** preparedness – threat potential e.g. heavy rain and flood, threat more likely to materialise
- **Threat imminent** e.g. cyclone

**Levels of threat** may be further refined and communicated through **warnings relevant to levels** as defined formally for specific disasters – for instance cyclone warnings reflecting potential severity as well as path / course, so places likely to be affected can prepare for protection as a priority. Levels of
threat systems also exist for bushfires, possible tsunamis, and research is progressing to examine the capacity to predict natural disasters wherever possible.

However, there are also circumstances of unclear threat such as potential for a terrorist attack, or earthquake where predictability of timing, severity and specific focus of threat may not be clear.

**Scientific Studies:** Knowledge to inform preparedness

A considerable scientific literature has developed on various aspects of preparedness for potential emergencies, particularly since 9/11, with a focus on mass casualty events. In the Australian context, as well as internationally, there has been increasing recognition of the difficulties in engaging populations and individuals in preparedness, even for relatively common natural disasters or other likely hazard.

Australian scientific research has examined threat and preparedness across disaster hazards, including terrorism (Stevens et al, 2009), pandemic (Taylor et al 2009), climate change, drought and natural disasters, with a focus on risk perception and possible preparedness actions that people have taken or report they are willing to take.

**Key themes to preparedness**

1. Knowledge about risk: up-to-date and scientifically sound information
2. Capacity for actions to enhance preparedness for, and response to threat, for protection from its effects.
3. Engagement of governments, stakeholders, key agencies including emergency services, organisations, communities, and individuals in understanding and developing preparedness actions relevant to their need, capacity and potential for effectiveness in mitigating adverse outcomes
4. Education and training to develop necessary knowledge and skills to operate in various aspects of response should the disaster eventuate. This would ideally include: emergency services, relevant health and other agencies, the communities who may be at risk, and individuals, i.e. what they themselves and their families need to know and do, to deal with a threat / disaster, should it occur.
5. Resources for response should the need arise, including resources relevant for health and other sectors.
6. Communication strategies at multiple levels and languages to provide information, guidance on actions, levels of threat, warning systems, mobilisation of response
7. Governance processes, i.e. what different agencies need to do to prepare, and how they will work together for response should the disaster strike; including the understanding of management, e.g. command and control in the emergency, who is in charge of what, and what their responsibilities are as different agencies or as individuals.

8. Planning to draw together all the key strategies in the event of need, including across diverse All Hazard threats and Disasters, and across diverse agencies, stakeholders and communities, and ideally to exercise or test these strategies as part of preparedness.

9. Mental health resources should be coordinated and integrated into disaster planning more broadly as a “critical step for ensuring effective response to all hazard emergencies” (Hawley et al 2007, p.199). Mental health expertise is an essential component of preparedness generically and mental health also needs to have specific preparedness planning to manage these aspects of response in the emergency, and subsequently through the recovery.

**A useful definition of preparedness is provided from the U.N.:**

*Preparedness: “Activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations”.*

(http://www.unisdr.org/eng/library/lib-terminology-eng-p.htm)

**Preparedness for Natural Disaster**

Knowledge about possible risk is highlighted by the Nexis program developments reported by Geoscience Australia. Nexis is the National Exposure Information System and the project reported is contributing to the database of “risk assessment for a range of natural hazards”, for instance with regard to buildings, populations etc. Local regions may be aware of their risk because of periodic natural disasters that have occurred over the years, and that have affected them variously. There is “familiarity” with these disasters and local knowledge in communities, volunteer and formal emergency services and local leaders. These disasters may be variously prepared for, but the ability to deal with them is assumed, often with a “disaster culture” that has developed about such threats and how they will be managed.

The need to prepare for and respond to natural disasters is well established in Australia but not necessarily followed by actions. For instance Smith (2006) provides a valuable overview of Natural Disaster Preparedness in Australia before and after 9/11. Smith described the evolving roles of Red Cross, Emergency Management Australia, and the National Disasters Organisation.
After Cyclone Tracy’s destruction of Darwin on Christmas Eve 1974, enhanced preparedness for cyclones was put in place, including building structure requirements in areas at risk (i.e. rebuilt Darwin); and using systems focused on monitoring weather and reporting on cyclones pathways with associated potential risk and threat.

However most disaster-focused activities have been directed toward the management of such natural hazards and their consequences.

While bushfire preparedness strategies had been developed in some contexts, e.g. clearing away dry leaves or back burning to prepare for the fire season, the Ash Wednesday bushfires of February 1983 with the loss of over 70 lives, contributed to greater preparedness programs, ranging from advice on preparing and protecting one’s home, emergency response including whether to “stay or go”, i.e. evacuate; and even training of school children with advice such as “get down low, go, go, go” as relevant to house domestic fires. Warning systems about levels of fire risk, pamphlets as well as local volunteer fire-fighting brigades were “prepared” to deal with fires.

A report in 2004 “Natural Disasters in Australia, Reforming Mitigation Relief, and Recovery Arrangements” as a result of Council of Australia Government (COAG) initiatives, placed emphasis on the need for preparedness and mitigation, not only response and recovery. This and other Australian State and Territory Government initiatives, have further supported preparedness for the range of natural hazards.

Nevertheless, as highlighted by recent large-scale natural disasters internationally such as the South East Asian Tsunami, Hurricane Katrina, earthquakes as in China and Haiti, and others in Australia such as the Queensland floods and Cyclone Yasi (2011), Cyclone Larry and the Victorian bushfires, preparedness may not necessarily be effective in mitigating the impact if disaster is severe, particularly in ways not anticipated. This is also exemplified in the Christchurch earthquake of February 2011.

A key issue is the degree to which people and communities are able to protect themselves in disasters of such severity, and the further problems of realistically being able to prepare or mitigate the impacts of such severe and intense, and often unpredictable, natural forces.

Some Australian research is contributing to understanding preparedness in Australia and New Zealand. Paton has studied preparedness for natural hazards such as bushfires, tsunami and more generally (Paton et al 2005, 2006a,b, & Paton & Wright 2008, Paton et al 2008). He demonstrates through a number of studies that just disseminating information is not enough, particularly as baseline levels of knowledge of preparation strategies are usually low. He found that it was
necessary to decrease “Negative Outcome Expectancy” (i.e. that nothing can make a difference), as well as increase “Positive Outcome Expectancy”. The latter will depend on whether people feel they can do what is required, whether other community volunteers would be prepared, whether they trust the information that advises preparedness. These issues could contribute to readiness to prepare. He suggests that information provided should help people focus on what is feasible, not mix this with issues about which they cannot respond. He suggests that “strategies must address information content (e.g. outcome expectancy), social content (community participation, problem solving) and community-agency relationship (empowerment, trust factors)” (p7). Paton also offers suggestions about community engagement in developing guidance, such as consideration of tsunami warning messages, or a role in their shaping proposed preparedness strategies. It is also useful to ask people how they would look after vulnerable populations (e.g. children, older people, those who are ill) as this can provide a way of considering and moving towards engagement in preparedness activity. Nevertheless even good intentions may not lead to actual preparedness behaviour, especially if this is costly in time, resources, or if threat appears very distant in time and space.

Other countries may have preparedness drills in schools for the event of an earthquake, e.g. Japan, or fire drill as for household fires.

Reser et al (2010) have conducted a literature review of psychological preparedness which is described as “an intra-individual and psychological state of awareness, anticipation, heightened vigilance and readiness, i.e. and internal, primal, capacity to act” (p4). They go on to suggest that Lee et al’s work (2009) highlights that actually doing something, acting, helps and can assist with one’s response, should the disaster happen. Nevertheless even though there has been substantial research using psychological methods, no clearly developed, evidence based guidelines appear to have been published in this field, although Tip Sheets and advice have been made available, as through the Australia Psychological Society (e.g. Preparing for and Coping with the Threat and Experience of Natural Disasters, http://www.psychology.org.au/publications/tip_sheets/disasters/).

The related concepts such as resilience; adaptive capacity; learned resourcefulness; have also been considered, as has the role of prior experience.

Morrissey and Reser (2003) evaluated the effectiveness of psychological preparedness advice in community cyclone preparedness during cyclone season and reported that the period before the cyclone season was important for psychosocial interventions that could potentially promote coping and adaptation.

Ronan & Johnston (2005) & Ronan et al (2008) have developed and tested a school based program building resilience and natural disaster preparedness in a “Strengthening Systems 4R” strategy in
schools. The ‘4R’ refers to four phases of emergency management: risk reduction, readiness (preparedness), response, and recovery. They engaged children in education and planning, plus homework to involve parents, and found benefits in progressing their concepts. Through a series of studies based on educating children about hazards in schools, they established that increased knowledge about hazard and risk, as well as adoption of increased numbers of hazard reduction adjustments, could be achieved. Programs worked best with younger children; when there was an emergency management focus; when parents were actively involved through homework / planning; there was a greater number of programs; and more recent involvement. Knowledge frequently extended to understanding the risk of other hazards. It was not associated with increased fears because of this focus, but rather more realistic risk appraisal and lower levels of hazards related fears. The increased interaction with parents was found to be associated with increased family involvement in planning and increased hazard reduction adjustments. These studies provide a strong basis for community engagement in preparedness though such school-focused approaches.

### Mental Health Aspects

Mental Health Aspects of preparedness for natural disasters include enhancing resilience, partnership with communities and organisations above, and building mental health system responsiveness through preparedness planning as above, as well as mental health workforce education and training.

### Preparedness for Technological Hazards

Preparedness for Technological Hazards

Strong safety standards for physical resources such as for building codes, equipment functioning, transport systems, production processes, and workplace requirements etc., can help prevention and to a degree preparedness for possible technological failure, accidents, or impacts of negligence in performance. Nevertheless accidents, systems and human failures do occur. Preparedness to deal with these requires identification of possible risks, addressing these, particularly if they reflect points of vulnerability; improving leadership and workplace knowledge and skills to deal with technological hazards relevant to the organisation and its functioning; and plans for response should such incidents occur. These preparedness plans can link closely with the concepts such as business continuity planning. They should encompass:

- Risk assessment, monitoring and management
- Planning for response to technological emergency or disaster in an all hazard framework
• Educating and engaging workforce at all levels to contribute to planning and action to mitigate risk and respond optimally

• Developing a culture of “safety focus” linked to occupational health protection and safety requirements, as well as organisational “mission” and resilience with the aim of maintaining functioning to meet client needs. This should have strong support and be valued by management and leaders, and aimed at optimising workforce capacity, contribution and outcomes in the face of any technological disaster.

• Warning and mobilisation systems; guidance for actions for safety and survival for workers; and involvement in exercises and strategies for preparedness and response in the event of an emergency

• Communication and information systems for organisations’ members and their stakeholders to assist understanding of risk; preparedness and response requirements, for example evacuation and safety actions; recovery strategies and what people can do themselves in the event of an emergency.

• Provision for needs of stakeholders; families of workforce, for instance welfare, practical and health needs, planning for and engagement in response and recovery; other stakeholders such as clients, supply pathways, communities of interest and their engagement so that they are informed re: preparedness, warning, actions for survival, etc.

**Mental health aspects** of preparedness for technological disasters include engaging leaders and members of organisations in understanding and addressing the potential risks that may contribute to technological hazards and disasters, and the organisations’ systems for responding to these. This would also involve members of organisations that might be vulnerable to technological disasters being made aware of the threats to safety, should such events occur. Education, training and regulations can help support people’s knowledge and understanding of appropriate preparedness strategies such as responding to warning systems, evacuation strategies, and protection of the self and others.

Building system and organisational resilience is likely to be helpful to preparedness, in terms of robustness and redundancy, testing of responses, and “taking care of” human, as well as business resources.
Preparedness for Terrorism and Related Mass Casualty Incidents

This has involved building new levels of knowledge about terrorism and its different forms, including CBRN, and strategies preparing relevant agencies, workforce, communities and others. There had been extensive research, particularly through the Homeland Security Centres in the USA about all aspects of terrorism preparedness, from evaluating whether organisations have plans, to screening for biological threat, to the development of protective / responding equipment for First Responders. Psychological aspects of preparedness have also been addressed, as have communication frameworks.

“A Medical Society’s Blue Print for a successful community response to emergency preparedness” exemplifies how practitioner groups engaged relevant hospital systems, nursing homes, and key stakeholders, and worked to develop disaster preparedness for their region, (Maese 2009); including recognising the difficulties if institutions did not have a way of working together. Others have looked at education and training needed to equip medical and nursing staff, although exercises and surveys of perceptions of preparedness indicated that it may take extensive preparation and exercises to make people feel confident and competent (O’Sullivan et al 2008). Hospital preparedness may be particularly challenged by contamination incidents, or infectious disease threats as occurred with SARS. This has led to much greater planning and preparation as evidenced with Pandemic Influenza in Australia and internationally. Within hospital settings there may need to be preparedness for response, which would address, for instance:

I. Surge of emergency demand and resources needed for protection and management e.g. surgeons, ventilation equipment, Intensive Care Units, operating theatres, Emergency Departments, etc.

II. Pressure on staffing levels, if staff are at risk or affected, for instance by infectious disease, injury, or family needs

III. Specific needs e.g. specialised burns units and care

IV. Mass trauma

V. Ongoing patient care priorities.

Hospital preparedness would also need to address business continuity planning for health

Mental health aspects of preparedness for these types of disaster include assisting agencies and communities through: resilience enhancement of community, education and training of mental health workforces; and collaborative strategies with relevant systems and personnel, e.g. first responders and health first receivers to assist integrated psychosocial aspects for response, should these disasters occur.
businesses, should the hospital itself be directly affected.

Australian Government and jurisdictional leaders have preparation and planning for such incidents, for instance, mass trauma plans e.g. AUSTRAUMAPLAN, health management plan for pandemic influenza (AHMPPI 2009), and burns plan (AUSBURNPLAN); with coordination and collaboration between government and agencies to meet needs. These are regularly reviewed and updated, especially after mobilisation for response to hazards.

**Mental health aspects** of this preparedness need to take into account and be linked into general preparedness planning such as psychological elements of OH&S, as well as workforce education and training in Psychological First Aid.

International recommendations about disaster education and training, particularly mental health aspects, have been developed (Weine et al, 2002), and more recently there have been reviews and commitment to further development of disaster health education in Australia.

Specific issues relevant to terrorism, pandemic and mass casualty incidents will be dealt with in specific chapters.

**Preparedness for Health Disasters: Pandemic and Emerging Infectious Disease**

Significant planning has taken place for “health disasters” to prepare for potential pandemic influenza for instance. Such preparedness involves:

- **Building knowledge and information** about such potential threats and what could be done to mitigate or control their spread and effects. This occurs through systems such as WHO Global Disease Surveillance and monitoring programs. These examine disease patterns, causative organisms such as “bird flu” (H5N1), their infectivity and lethality, and potential for control and treatment. Such planning for pandemic influenza occurred before the swine flu (H1N1) pandemic.

- **Planning is central** and needs to include processes for identifying organisms / agents, mode of spread and strategies for prevention and control including vaccines, pharmacological treatments, or control and behaviours needed such as hand washing, masks, social distancing, school closure etc.

Studies of SARS (Severe Acute Respiratory Syndrome) helped such planning. The National Action Plan for Human Influenza Pandemic, and support strategies, provide information on preparedness, agreed stages and proposed actions, information and communication, control
and management and their implementation and potential effectiveness. In terms of “swine flu” (H1N1) such planning was implemented. Following this, a review has taken place and this plan will be further developed taking into account relevant findings. Australian planning links to global strategies and planning coordinated through the World Health Organisation.

- **Health Systems and Workplaces** are key elements in dealing with health disasters, although other front-line workers, organisations, populations, also need to understand and engage in such preparedness and response.

Specific preparedness for health care needs to involve business continuity for health care systems and hospitals, community and primary care (General Practitioners) and to develop health protection strategies and support systems to assist and maintain function.

**Mental health aspects** of this preparedness involve the development of support programs in partnership with health workforce, for people in the relevant health care systems. They also require psychosocial mental health programs for those at risk, and affected, in the broader community.

There is also the need for planning and education and training of the mental health workforce to be prepared to deal with such disasters.

**Health Disasters may also arise from Bioterrorism**

Preparedness and planning for potential response also needs to take this hazard aspect into account, for instance the possibility of “weaponised” or altered organisms; or ongoing or multiple sources of spread; or latent periods on onset. Response planning in such circumstances will need to take into account higher community impacts of the additional threat that terrorism or malevolent intent brings, adding to traditional contagion fears. Compton et al (2005) highlight the importance of community engagement and the importance of incorporating mental health at “grass roots” levels, possibly through community mental health.
General Preparedness Strategies

Building knowledge and skills for All Hazard Preparedness
Knowledge, skills for preparedness will require identifying the requirements and developing education and training of the workforce, developing systems of response informed by such knowledge, and educating the public. These are tested in critical responses or by exercises.

An evaluation of web-based disaster and emergency preparedness resources found that reading levels were difficult and that suitability assessment showed they were for the most part inappropriate for the level that was needed (Friedman et al 2008).

Education and training are central and operate though multiple frameworks and modalities. Educational Gaming has also been suggested to assist preparing workforce; for instance a “Road Map to Preparedness” which uses the core competencies defined by the CDC in the USA (Barnett et al 2005). Other work has supported the value of this training tool, that has been used and well received in health system training (Parker et al 2005); has reviewed instruments for assessing Public Health Preparedness (Asch et al 2005); and highlighted the standardisation, collaboration across agencies, and research necessary to improve evidence base that these should reflect. Other work highlights the core requirements for public health emergency preparedness (Nelson et al 2007).

“Just-in-Time” Networks and Learning have been reported in response to major disasters such as the South East Asian Tsunami, Hurricane Katrina and Bam, Pakistan and other earthquakes (Ardalan et al 2008). These “Supercourses” are likely to be of value and if prepared beforehand in terms of core materials, provide for experts to rapidly build on these for the specifics of the incident. This basic scientifically up-to-date template and urgent response strategy could be a valuable model, available and adapted on the web for the specific disaster and with interactive capacities.

Education and Disaster Risk Reduction is discussed by Seeynaeve (2008) in comments on this in the context of “Just in Time” networks and learning.

She highlights the fact that “the damage and health impact, even of natural hazards is largely determined by socio-economic factors and societal development(s)” (p.309). This is particularly marked in the case of low-income countries, and where the poverty level, the presence of humanitarian crises and complex experiences are far more likely, i.e. in countries where there is a low human development index. It is also clear that even in developed countries, scientific assessment of risk related to disaster impact is only partially based on scientific understanding of this. Thus as suggested in this paper, a conceptual framework for disaster health more broadly must encompass not only public or population health and clinical programs, but also the organisational
aspects and the need for resource and organisational management components (see page 310). Furthermore “to be effective and positively influence health response to disaster” it is important that “disasters, conceptual framework, target, evidence, context, methodology and evaluation of education and training need to be addressed” (p.310).

A Disaster Risk Management Cycle is proposed (p.311). This needs to recognise the broader concept of “Disaster Health” which should address “the multidisciplinary health response to major events that threaten the health status of a community. Education and training should focus on such issues, but also Public Health needs (collective health), clinical health / individual needs, and organisational approaches. Furthermore it should deal with preparation, emergency and longer-term phases, and be evaluated. As indicated in this editorial review “a pragmatic, all-hazard, core preparedness based on systematic health needs assessment, allows for flexibility and dynamic health response” (p.312). This overview also emphasises psychosocial aspects. Finally, the variety of formats and processes for education and training needs to be supported by research, bi-directional feedback and particularly “more active participation of the students” (p.312). This could include, for instance, “individual skill stations, team play, practical simulation exercises or field experiences” (p.313).

Specialised preparedness guidelines for children have been developed to support planning for their needs, taking into account their specific vulnerabilities and the need for expert and informed response (Allen et al, 2007). These authors emphasise the importance of specific mental health programs in this context. Freyberg et al (2005) discuss the needs for specialised decontamination in the event of chemical incidents affecting this population and also discusses the importance of mental health components for children in such circumstance, i.e. there is the need to prepare for these, taking into account psychosocial and mental health aspects.

Specialised preparedness for vulnerable persons, including older people and disabled people receiving in-house long-term care has been studies by Laditka et al (2008). They highlighted the importance of specific planning for such groups, including working in coordination with older people and with core agencies and local systems of disaster response. Beyer (2008) noted the beneficial effects of disaster preparedness for such groups, and also more broadly.

Preparedness also needs to be addressed with specific, culturally defined groups, and indigenous populations (Ursano et al 2007, p14) because of differences in social behaviours, connectedness, language, and perceptions and experiences of threat.

Klimenko et al (2008) discusses the capacity to use “virtual environment systems during the emergency prevention, preparedness, response, and recovery phases” (pg 75), with, for instance,
the simulation for first responders training in preparedness. He also discusses potential use for other phases, such as 3D geographic information, presentation, and visualisation and discussion support.

Plans are the proposed framework for enactment of preparedness strategies. They are developed by governments and lead agencies and identify aims; governance; roles of emergency disaster agencies, including health and mental health, potential resources needed, and actions proposed. NSW Disaster Plan, or Displan, (www.emergency.nsw.gov.au/plans/displan,) the New South Wales Health Services Functional Area Plan (Healthplan) (http://www.health.nsw.gov.au/policies/pd/2009/PD2009_008.html), a supporting plan to Displan, and the New South Wales Mental Health Services Supporting Plan to NSW Healthplan (March 2011) are available in Appendix A.

**Key Elements for General Preparedness**

Preparedness, preparing to deal with a threat, which may range across “All Hazards”, involves specific strategies that are encompassed in planning. These require the engagement and commitment of governments, agencies, communities and individuals to prepare and act.

1. **Knowledge and Information** about:
   - Potential threats, their likelihood and possible impacts, and building this through education and training
2. **Identifying the Resources and Actions**
   - Necessary to mitigate threat or hazard effects on human populations, infrastructures and resources, with the aims of protecting lives, people and animals, resources, supplies and function of systems, and infrastructure
3. **Developing Specific Plans to enact: Governance, Education and Training, Coordination**
   - Protection strategies and response capability; plans that include coordination and governance; roles and responsibilities; aims and accountabilities in an All Hazard Framework.
4. **Education and training of relevant agencies** who will contribute; such as emergency services, health agencies, police and security as well as engaging and educating populations/communities/groups/individuals in understanding and undertaking their own contributions to preparedness e.g. for instance a family emergency plan
   - Establish planning processes to maintain or return to function through and after potential disaster
5. **Establishing communication strategies** and processes that will inform understanding; provide trusted sources of information; agencies for communication (e.g. web, radio, mobile
phone etc); capacity to communicate generically and then for specific threat; warning communication capability for escalating threat and actions that should be taken through any emergency and subsequently; communication to mobilise in preparation and response

6. **Testing Planning through Exercises and Practice**, and ensuring:
   - Flexibility for different types and intensities of threat
   - Capacity to deal with emerging, changing threat, and relevant response in terms of new knowledge, information, timing
   - “Lessons”/Learning from testing, exercises implementation and review and progressively incorporating into preparedness as relevant
   - Documentation and evaluation with quantitative analysis as well as qualitative

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**Key Elements for Psychosocial and Mental health Aspects of Preparedness**

The WHO has developed a template to improve mental health aspects of Preparedness and the development of or Mental Health Preparedness Plan. An outline of this as adapted for Australian circumstance is available in Appendix B of this chapter (WHO AIMS-E Australian adaptation).

Preparedness strategies must recognise the:

- **Role of human perceptions and behaviour** and their relevance for all hazards and all aspects of PPRR / the importance of building this in integrated ways.
- **The significant prevalence** of baseline mental health problems across populations that may both influence potential behaviours, and be influenced by the disaster
- **Mental health impacts** occur through direct effects such as psychosocial trauma, loss and dislocation, as well as disaster consequences over time
- For most disasters **mental consequences are among the most costly effects over time**, in human terms, community outcomes, economic impacts, and in terms of capacity to recover.
- **There will be need for acute surge**, but also longer term **sustainability** of response in relation to mental health consequences of disasters

**Psychosocial and Mental Health Preparedness requires:**

1. **Knowledge and Information about**
   - Risk and psychosocial significance
2. Development of Specific Plans that reflect the themes identified above, utilising frameworks such as the WHO template, i.e. a Mental Health Preparedness Plan, (see Appendix A), taking into account planning processes and broad guidelines as relevant to jurisdictional requirements. This should include integrating and coordinating response, particularly with the health sector in the emergency, and subsequently with recovery agencies and with affected communities for the aftermath. Planning would encompass those emergency organisations with which mental health leaders could be engaged, such as various levels of government, health and other agencies including the relevant non-governmental sector. It should also include engagement and planning with communities who may be at risk of being affected by disaster; and facilitating individual and family emergency plans.

This should also include identifying resources and actions / strategies that could potentially protect mental health; minimise adverse mental health consequences, and optimise psychosocial and mental health aspects of response in the emergency, and aftermath, including what is relevant for those with specific needs. There is also the need to enhance resilience, where possible.

3. Engagement and Education of:

- Populations, institutions, and communities to enhance resilience and develop personal psychological as well as practical preparedness strategies (see below)
- Mental health Professionals and Systems to enhance their knowledge and skills for their roles and responsibilities; enhancing their capacities for effective response in the emergency and aftermath, to protect and treat mental health issues
- Mental health services planning to educate, protect and provide systematic planning and effective actions for those with existing mental health problems and to plan for “Business Continuity” for the mental health service systems and for their clients
• **Mental health Protection and Response Strategies** for other organisations, systems and populations and specifically for those who are likely to be more vulnerable or have special needs

4. **Establishing Communication Strategies**

Psychosocial and Mental health expertise can contribute to the development and implementation of communication strategies in a number of ways.

• **Communication Generally:** Advice, building on research and knowledge, can inform the building of trust; the role of leaders and communicators in delivering clear advice with competence and confidence; simple and clear presentation of what is known and not known; what is being done and what people can do; and managing fear and uncertainty (see communication template). Support for leaders and communicators maybe a further strategy in the emergency and aftermath but would need to build trust during the preparedness phase.

• **Communicating Mental Health Related Content and Strategies.** This can encompass content including: managing personal distress; identifying and utilising positive adaptations and resilience; connecting with others for mutual support and planning; through to the advice that can be given for the emergency in terms of safety, protecting the self and others, and dealing with the emergency and the aftermath. This could include but not be limited to dealing with distress in the self and others, for instance with principles of Psychological First Aid and Personal Support; self care strategies; through to how to know when help is needed and how to access such mental health assessment and management for severe, acute or ongoing psychological distress, symptoms or functional impairment.

• **Communication** should be with clear principles across different media, and available in multiple media, with simple messages including those for potential action for protection, survival, safety, care etc. Communication strategies should aim to facilitate
  - Clear warning systems, their psychosocial aspects and effectiveness
  - Decision making and appropriate action that can follow
  - Ongoing responsiveness to need through the emergency and subsequently
  - Provision in multiple languages, and through accessible processes
  - Communication for mobilisation, and enactment of plan and response
5. Testing Planning and Ongoing Development

Mental health/psychosocial plans should be tested in exercises. There should also be evaluation of implementation in disasters. Mental health may need to actively lobby for inclusion and integration into exercises and testing response across PPRR, and with regard to its place as an integral part of Health Systems response, including through the emergency. It needs also to have built in responsiveness with

- Flexibility to type of threat and potential mental health implications of any “fear epidemic” and the greater mental health effects with terrorism
- Responsiveness to emerging threats, changing need etc – for example fear of CBRN leading to a surge on health systems; psychosocial effects of dislocation or isolation
- Emerging, new knowledge, information re threat and health and mental health effects, and incorporating this with whole of health response.
- Lessons learnt from testing with exercises in terms of mental health effects, for instance for workers and for others, for necessary mental health documentation for follow-up of those affected, taking into account privacy and other considerations
- Documentation and qualitative and quantitative evaluation, which as far as is feasible, informs planning in the future.

Challenges for Preparation Planning

Planning for possibly rare and uncertain occurrences, for something that may not happen, is difficult to sustain. Maintaining and continuing to develop responsive, flexible, up-to-date, general preparedness plans, including mental health preparedness plans requires:

- Organisational commitment at government and multiple levels. This is normally in place
- Dealing with psychosocial, resource and other barriers, such as: denial, “It won’t happen here”, (not to me, my community etc); cost when other areas have high demand as a baseline (e.g. health care systems). Or other priorities that may affect potential for action (e.g. high baseline mental health demand)
- Community priorities and their implications

Cost benefits of preparedness and planning for disaster All Hazard response need to be better researched and delineated, for instance in terms of possible effect of preparedness on lessening risk of a adverse mental health outcomes, mortality, and so on in relation to disaster impacts.
System capacity building  Preparedness of health, mental health, emergency and other areas can be integrated with the functioning of the baseline systems, including the education and training of personnel. This education has the capacity to enhance knowledge, skills and capabilities for the day-to-day functioning of the system and potentially improve it. While this is generally considered a possibility, further research is needed to establish how this could add value to baseline functioning for both workers and overall systems.

Collaborations Through disaster planning, collaboration and response involving mental health and physical health, general practice and other primary care; welfare, business, non-government organisations and institutions such as schools and industry; such initiatives can also strengthen these relationships for their contribution to mental health more generally, in line with COAG initiatives.

Core Strategies in Preparedness

A. Plans or Planning

1. Disaster (Preparedness) Plan: Generic

Such a plan indicates

- Purpose, Aims
- Governance processes
- Stakeholders who will contribute and their roles and responsibilities e.g.
  - Emergency Services, Responders
  - Health
  - Mental health
- Processes to bring plan to fruition, including consultation, testing & development updating, and documentation requirements.
- Infrastructure and resource requirements
- Capability and Capacity of human and other resources
- Standard Operating Procedures
- Mobilisation, briefing, transition to step down and other processes and their indications
- Education, Training for necessary competencies and standards

The NSW Health Disaster Plan (Healthplan) and Mental Health Plan (NSW Mental Health Services Supporting Plan) are attached – (see Appendix A).

2. Disaster Mental Health – NSW Mental Health Services Supporting Plan
This plan should be clearly integrated with the NSW Healthplan and its governance and management. This is the case for NSW. For example Governance and implementation is the responsibility of the Mental Health Controller at State or regional level, when mobilised with the health plan, or specific mental health issues.

Such a plan indicates

- Purpose, Aims for mental health through PPRR
- Governance and management of the mental health sub-plan component in partnership with relevant agencies, particularly health, emergency and others and requirements for mobilisation or enactment of the plan.
- Roles and responsibilities to fulfil aims generally and those of specific components including for instance, consultation, mobilisation, Psychosocial First Aid, follow up and outreach, general and specialised assessment and intervention
- Documentation and monitoring, potential for surveillance, screening, follow up and evaluation
- Education and training of workforce including also just-in-time education and briefing relevant to the specific disaster; and to agreed standards
- Other components as relevant for mobilisation, effective response and step-down transition

The NSW Disaster Mental Health Services Supporting Plan to NSW Healthplan (March 2011) is attached in Appendix A.

There are also extensive resources for communicating about mental health aspects, including where to get further information and assistance, and what people can do themselves.

3. Response Planning Capacity for All and Specific Hazards

Key elements of disaster planning broadly and for the specific health and mental health components:

- **Flexibility and capacity to be responsive** to the specific circumstances such as mass natural disaster, technological disaster, terrorism in its various forms, pandemic or other disease threats
- **Managing Uncertainty and Optimising Response** to effectively address the specific hazard is central, so that plans must be attuned and responsive to emerging issues
• **Transition of “Plan”** from the broad preparedness to action in the Emergency Response Plan (brief and flexible) for the specific incident / hazard, through to transition and hand-over, and the Recovery Plan

• **Governance of Nationally Coordinated Responses**, for instance in large-scale disaster, pandemic, terrorism or other mass hazard, there may be an agreed and coordinated national approach. This takes place through an agreed and tested set of national and jurisdictional relationships and committees. These include for instance, Emergency Management Australia, National Counter Terrorism Committee, the Australian Health Protection Committee, which facilitates national health coordination when required, and potentially also for off-shore incidents effecting Australia internationally.

• Governance and coordination of mental health aspects are managed at jurisdictional level. The National Mental Health Disaster Response Committee and Taskforce functions to assist with coordination of resources at a lower level for mental health and is represented on and links with the Australian Health Protection Committee.

Health Regulations and “Health Arrangements” support national and international response, providing agreed legal bases for collaboration in the event of such emergencies.

Mental Health Recovery Plans are developed at jurisdictional or local level in response to specific disasters, in collaboration with all government, non-government and other sectors, and relevant agencies. These are focused on assessing and responding to mental health need.

4. *Family and Personal Emergency Plans*

There are significant templates that are proposed for Family and Individual Preparedness Plans. One model is outlined in detail below dealing with preparedness for natural disasters such as bushfires; another is provided by the Australian Red Cross (http://www.redcross.org.au/ourservices_acrossaustralia_emergencyservices_resources.htm).

Key Elements are highlighted in the following

• A resource such as a backpack in which essentials can be carried
• Contact details for family members and others
• Torch, batteries and portable radio in case of power failures
• Identified meeting places or safe places to gather during or after the emergency
• Mobile phone and device for recharging
• Water, food bars
• Protective clothing, pen, paper
• Essential Medication

This list is brief and should cover essentials, and other resources as advised. One such guide, the Australian Government’s ‘Preparing for the Unexpected’ kit, is attached in Appendix A.

5. Organisational and Business Continuity Plans

These include protecting human and other resources, critical infrastructure strategies for sustaining priority functions and “looking after people”, “looking after business”. These strategies are also relevant for health and mental health organisations including safe hospitals, etc. A brief review of key elements is attached in Appendix A.

Mental Health “Business Continuity” plans encompass strategies for continuity in provision of mental health service for those with existing problems, plus planning for surge and sustainability to address new disaster-related cases.

B. Information and Communication

1. Information and Communication

Key sources of information on threat and how to prepare, plus risk levels, need to be identified, plus processes of access. Those may range from print media through to radio (e.g. ABC regional radio plays a major role) and the Internet.

Information and some key materials are available on websites below:

http://www.nationalsecurity.gov.au
Communication Strategies

These should be developed in partnership with experts (e.g. media, threat experts, communication experts) and tested beforehand. “Trusted sources”, including leaders, should be schooled for provision of clear and direct information. Information and communication must be related to threat level, emerging information and be regularly updated and monitored over time.

Key principles for communication are set out in the template provided in Chapter 2 and should inform communication at all levels. (See Chapter 2 for Template).

One function of communication is to give warning of threat level and actions that can/should be taken to enhance likelihood of safety and survival, and protection of self, others etc as appropriate.

2. Warning Systems

Considerable work has been done to achieve a nationally consistent approach, with research to test a range of warning models. These issues have also been identified by the World Health Organisation (2007). Recent warning guidelines include, for instance, the scale of threat, potentially up to “catastrophic”, and required behaviours. Such levels and types of warning were developed following the Victorian bushfires. Ensuring people receive warning is frequently a challenge, possibly because of environmental conditions. Phone, text messages, radio broadcast locally, neighbourhood and local network strategies, have been proposed for warnings for natural disasters.

Terrorism risk is indicated through the Australian Government’s National Counter Terrorism Alert System, indicating progressively heightened levels of risk. These include:

- low - terrorist attack is not expected;
- medium – terrorist attack could occur;
- high – terrorist attack is likely; and
- extreme – terrorist attack is imminent or has occurred.

Warning needs to provide information on potential actions to take, and the nature (if known), likelihood, severity and timing of the specific hazard, as well as the availability of assistance, shelter, and resources.
3. Potential Impacts & Protection Actions

Public communication needs to focus on safety, survival and protection of life and health, and what protection may be relevant for particular threats. The vulnerabilities and needs of children should be specifically addressed, particularly if they are separated from parents/families, and the roles of schools, child care organisations and other persons or institutions, in their safety and protection. As well there is the need for identified strategies for subsequent contact for them, and their likely whereabouts for parents.

First not to harm is a key principle of disaster preparedness and response and should inform all aspects of preparedness and response, including mental health. Not to become a casualty oneself if responding or assisting is a further requirement.

Resources for Protection should be identified, and as far as possible, provided, for instance Personal Protective Equipment for emergency workers and frontline or formal responders. Safe places, shielding, decontamination, shelter and so forth may be further resources. Health system supplies of antidotes, devices and medication should be prepared and mechanisms for accessing such supplies identified, as far as possible.

Protection of the Mental health & Safety of all responders should be a core requirement, fulfilling the need not to make additional causalities. These include protection equipment, limiting tours of duty and safety requirements.

C. Preparedness for Mobilisation and Deployment

1. Mental health Deployment

Mental health contributions may need to occur in diverse settings, which should be identified and incorporated beforehand in preparedness planning and strategies. Some examples include

- Emergency Operations Centre: There should be a mental health senior experienced expert for mental health consultation, support, advice, through the emergency
- Emergency services / departments for support of injured persons and families and to manage their distress and fears, for instance in relation to specific exposures. This may continue into the hospital settings as required.
- Evacuation/reception centres: where general support, information, Psychological First Aid and triage may be required
• **Communication, information and management units**: for information, advice, supportive consultation and forward planning, including call centres briefing

• **Vulnerable populations**: – communities and centres for facilitating appropriate support

• **General practices**: linkage and support/advice

• “**Meet and Greet**” support for affected persons and relatives, for instance at airports e.g. after international incidents such as the Bali bombing.

• **Outreach, Family liaison** roles and support for those bereaved and potentially bereaved, over time and through DVI processes, as with the counselling services provided by mental health experts through the Sydney Coroner’s office.

• **Outreach to people in their homes**, and in **community centres or institutions**, through contact processes e.g. phone, door knock, etc.

• In some instances **deployment may be to the disaster site** but only if agreed and supported by the lead agency. Many other settings may be relevant depending on the nature of disaster and needs of affected populations. It may also involve teams being deployed, nationally, and internationally, and mental health roles in support of these.

**Spontaneous Self Deployment** is the usual response of affected community members. This may be further assisted if they are knowledgeable, prepared and educated for what they can do including practical aspects and survival, protecting themselves and others.

2. **Readiness and Emergency Responders**

If warning occurs, even briefly, emergency responders are usually “briefed” for the tasks of this deployment and response, in terms of the nature of the imminent threat. If there is adequate time, some period of warning, then more specific mobilisation may build on earlier preparedness to inform and focus response effectively.

Deployed teams, for instance international response teams known as AUSMATs (Australian Medical Assistance Teams), are likely to be more specifically briefed and this may appropriately include a range of tasking and other advice. Mental health advice on self-care and access to support during the deployment or subsequently is an important component. This may also involve specific advice / support for team leaders.

**Personal Preparedness: Psychosocial Aspects**

There are several strategies that people can develop to prepare themselves for disaster. These strategies can also help to build strengths to handle the personal disasters and challenges of everyday life. There are 5 key elements, which can be mobilised in the event of a threat and hazard
becoming likely. Psychosocial preparedness should be integrated with practical preparedness strategies advised by emergency services or other agencies.

The Five Strategies are as follows

1. Knowledge and Information
   It is important to identify knowledge and sources of information about possible disasters particularly those that may be likely in the person’s local area, or where the individuals lives, or in relation to work or other roles or situations. Knowledge about local disaster plans; emergency services, protecting self, family and what to do are important aspects. It is useful to check these issues off briefly, but not to become hyperanxious or preoccupied with the threat.

2. Connecting with Others
   This recognises the importance of understanding and planning together, sharing solutions and mutual support through any threat, the emergency, and the aftermath. Connectedness and support may help to mitigate mental health impacts. This can occur at family, neighbourhood, school, workplace and community levels.

3. Identifying Strengths: Enhancing Resilience
   These are part of a person’s “tool kit” of strategies that are likely to have helped him or her to deal with possible threats and hazards. These strengths also help one to help others.
   These strengths may involve
   - Coping strategies and problem solving, for example, dealing with difficulties bit by bit, using what was helpful in previous experience, and common sense.
   - Thinking strategies such as trying to:
     - See threats or hazards as challenges
     - Focus on positives
     - Think about and practice how one would deal with a disaster, what one would do – i.e. anticipating and rehearsing actions in one’s mind

- Emotional or feeling strategies include recognising, owning, and using personal capabilities to effectively manage / utilise:
  a) Fear and its implications
  b) Anger and its implications
  c) Positive, affiliative responses
d) Consoling, empathising responses

e) Determination to survive, to “fight on”, to save self / others

f) Recognition that most people are courageous, resilient, and deal with emergencies well

4. **Planning for, and possibly Practicing in one’s mind, Actions to Take in an Emergency**

   • Actions for survival, safety, protection, that could lead to greater security, lower risk to self, loved ones, others e.g. personal plans for safety and survival
   
   • What to do to deal with threat, doing what is possible and where help is available and can be accessed.

5. **Looking After Ones Life and Wellbeing**

   Strategies for preparedness should be thought through and held as a mental health “Tool kit” to be mobilised should they be needed. They should not preoccupy the person who should rather keep up the regular activities of his or her life. Valuing and committing to one’s life and loved ones, is a survival and preparedness psychological “tool” of significance, one that enhances one’s sense of competence, efficacy. Preoccupation with the potential for terrorism, or disaster should not be allowed to take over life, to interfere with functioning or relationships. Rather this “Tool Kit” of psychological strategies should be mobilised when needed, i.e. when disaster threatens, or occurs.

**Role Preparedness for Mental Health Workers**

Mental health workers should think through the role they might play, when preparing for a response to a disaster.

The following is checklist for psychosocial preparedness:

- Are you psychologically and practically ready, prepared, have and know how to use relevant protective materials / clothes, or equipment

- Do you know your role and responsibilities in disaster response e.g. Psychological First Aid

- Have you and your team practiced your roles and responses and developed clear ways of working together

- Are you clear about where you fit into the systems described above, including who you report to, how you get mobilised and briefed for a specific disaster

- Is your education and training up-to-date, particularly knowledge and skills required for information provision, outreach, follow-up, assessment, intervention, proportional to your role in the system.
• Do you know where/who will provide supervision and backup and how you can utilise such support and when you need it
• Do you have documentation templates and reporting ready
• Do you know how to care for yourself physically and psychologically
• Have you identified a clear set of step-down strategies to make a staged return to your usual role, plus processes to learn from your disaster experience, and ways to access help if needed
• Have you knowledge of your family’s loved ones’ safety and survival, or ways of addressing concerns for them, so that it is possible to fulfil your ‘role’; and actions you can arrange to take if their need is great.

Preparedness for Specific Types of Disaster and Mental Health Aspects
This section will provide a brief overview of preparedness issues for different types of disasters or hazard and their mental health implications.

A. Natural Disasters:
Past experience of weather/storms, cyclones, floods, and other incidents, means these hazards are well known to Australians and may be familiar experience. Bushfires are similarly familiar in some regions and seasons. Earthquakes are known but infrequent as severe events in Australia.

• Significant public intervention resources are available
• Warnings of increased risk are provided where this is possible, usually reflecting proximity, immediacy potential severity and threat level as well as appropriate actions for safety, such as whether to evacuate or not. However this is less likely to be available for earthquakes.
• Preparation information is also available for the common natural disasters such as fires, storms, cyclones, hurricanes, and floods.

Preparedness can

• Enhance effective response
• Mitigate anxiety and helplessness
• Potentially lessen impacts

Practical Preparation Guidelines include key messages about what to do in the event of threat. The majority are developed by expert agencies in the field and others with Government backing. They are exemplified by strategies such as the Bushfire Survival plan “Prepare, Act, Survive” (2009), which identifies knowing about risk, decision making in the face of threat, responding to
the agreed national warning system; where and how to act for safety and survival and specifically, a Survival Plan or Emergency Plan.

Bushfire Survival Plan involves the following steps

1) Activate Plan
2) Put on personal protective clothes
3) Decide: Act; Go or Stay
4) Monitor Risk

Key to preparedness is having a Plan to based on knowledge and information protect self and others, to survive, and if possible protect properties, but with a priority for Life and Survival.

The Australian Psychological Society (APS 2009) has developed the Psychological Preparedness for Natural Disasters Strategy.

This is the AIM model:

1. Anticipate the anxiety and concerns that will arise
2. Identify uncomfortable or distressing thoughts
3. Manage responses so that ability to cope remains as effective as possible.

**Mental health aspects** of planning to assist others in a natural disaster or any emergency or aftermath

- i. Consultancy and support for potential health and mental health effects
- ii. Psychological First Aid and Personal Support as general strategies for those distressed, traumatised, bereaved, injured, or others at high risk.
- iii. Identification and outreach to those who may need specific mental health assessment and intervention, including vulnerable groups
- iv. Link to necessary programs across public health and clinical service settings, for instance support consultation to hospitals, GPs, primary care
- v. Interventions based on or informed by evidence and evaluation
- vi. Prepare Mental health linkages to support communities and individuals who may be affected, e.g. through schools, health care systems, other.
- vii. Prepare to support those with pre-existing mental illnesses in community or inpatient settings
B. Technological Disasters
Preparedness for technological disasters should link to general preparedness, taking into account specific risks for instance knowledge about these, planning, education and training to deal with:

- Transport disasters. This builds on emergency planning, which is tested to a degree through MVAs, crashes and the like. Scenario testing is helpful.
- Explosives, chemical and other spills; fires; preparedness needs to utilise knowledge and assessment of potential physical and biological hazards, emergency injury management, as well as diverse agents or causes
- Structural failures, e.g. buildings, bridge collapses; emergency responders and organisational plans could come together to address need.

Specific issues about technological disasters that may need to be taken into account with preparedness include:

- Uncertainties about cause – for instance accidents or possible terrorism, and implications
- Overlap with natural hazards such as extreme weather earthquakes
- Background of slow impact, or multiple hazards
- Potentially diverse populations affected e.g. international, with plane crash
- Complexities of emergency response and rescue or because of possible hazards for workers

Mental health aspects of planning to assist could include:

i. Consultancy and support for relatives, those affected, to support site management
ii. Contributing to information and communication.
iii. Consultation and advice for leaders and workers to assist management of circumstances of uncertainty, prolonged threat, crowd management.
iv. Support to vulnerable groups such as workers or those linked in various ways to the emergency, for instance for families of deceased or missing.
C. Terrorism

Terrorism will bring additional distress and increased risk of adverse mental health consequences. The potential for further attack, the malevolent intent and uncertainty of timing and target add to fear and dread, though resilience is still likely.

Preparedness for such threats occurs across emergency management, national security, counterterrorism, police, and those agencies such as health, which will manage the consequences of terrorist attacks. Such threats will need to be understood, prepared for, and responded to in terms of the different types of attack from explosive devices and bombing, through to possible chemical, biological and nuclear attacks.

Preparedness activities in this field from the health points of view include:

i. Building the knowledge about the range of possible threats, health protection strategies as appropriate and identification and management of health consequences, including mental health

ii. Preparedness actions can include for instance:

- Public and community engagement and education about preparedness, protection and strategies in response, as well as resilience enhancement, warnings, and preventing fear epidemics
- Identifying potential health workforce and providing education and training to enhance necessary skills, knowledge and response capacity, for instance surgical teams for blast injuries, toxicological consultants for chemical agents, infectious disease experts for biological threats, and so forth
- Resources necessary for response, such as antidotes, surgical supplies, burns beds, decontamination resources, capability audits, treatment resources and updating these; resource mobilisation strategies
- Exercises involving health in collaboration with other agencies to identify gaps and build capacity for optimal response and health care provision in the emergency and subsequently
- Mental health workforce development for appropriate strategies to assist the health and emergency workforce and outreach and other strategies to manage mental health aspects of the emergency and mental health consequences
Planning is central, and occurs at a number of levels, particularly National Security and Counterterrorism agencies. An example of these is the National Counter Terrorism Plan (http://www.ag.gov.au/agd/www/nationalsecurity.nsf).

**Mental health aspects** of planning include

i. Building knowledge and information regarding psychosocial and mental health aspects of terrorism as a threat

ii. Education and training of mental health workforce in psychosocial aspects and management of terrorism and its mental health effects, including fear and dread, health fears, and trauma and other syndromes, plus effects of aspects such as CBRN terrorism, and broad population consequences (Stevens et al 2009, Raphael et al 2008)

iii. Population / public health needs and psychosocial and mental health aspects, including information and communication strategies, community engagement and resilience enhancement to deal with threat and consequences

iv. Contributing psychosocial expertise to workforce needs more broadly including health care system consultation and support

v. Preparation for vulnerable populations, including those with mental illnesses.

vi. Exercises for mental aspects of response and capacity building
D. Health Disaster e.g. Pandemic Hazard

Preparedness for such events, disease epidemics such as the H1N1 Swine Flu, may constitute a threat through the rapidity of spread, infectivity or contagion and the severity and lethality of the infectious organism.

Preparedness needs to also encompass response strategies should health disaster be a consequence of bioterrorism.

Preparedness activities in this field are chiefly in the field of health and include strategies such as

i. Building the knowledge base through disease surveillance to identify the organism and its characteristic patterns of spread, clinical patterns and potential lethality. The WHO disease surveillance networks are critical in these processes.

ii. Preparedness actions involve

- Public/community engagement and education to promote behavioural biosecurity aspects such as hand washing, wearing masks or other protective equipment, and social distancing (Taylor et al, 2009)
- Biological and chemical strategies such as development of vaccines and vaccination of populations as well as identifying pharmacological agents that may be effective in containing spread or treatment of those affected
- Health care and other workforce education and training, and necessary equipment and resources to respond effectively, to contain and treat, modes of functioning and conditions, and psychosocial aspects, including self-care, and general mental health support
- Education and support for frontline workers re the protective strategies, protocols etc.

Planning is again central and is at a number of levels that will reflect management, protection and preparatory requirements, and actions. This is exemplified by pandemic preparation where there are resources such as:

- Australian Pandemic Plans (with phases of Alert, Delay, Contain, Protect, Sustain, Control, and Recover)
- State and Territory Pandemic Plans
- Organisational and regional plans including those of business continuity
- Personal and Family plans (in some cases)
**Conclusion**
Many of these preparedness initiatives will also be relevant and will inform response and recovery phases.

Key aspects require specific attention and will also be addressed elsewhere:

- **Plans and Planning**: these should be clear, feasible, identify necessary government, human and other resources, and should be regularly updated
- **Community Engagement and Education** and its role in preparedness, including what is known and in mutual support and capacity for action, should be a key element as far as possible.
- **Information and communication strategies** should be researched, tested and supported by relevant positive, psychosocial / mental health consultation.
- **Resilience**: its meaning, measurement and relation to mental health strategies (including individual, community and organisational levels), needs to be taken into account and enhanced as appropriate
- **Education and training** to skill levels for all involved and specific education for psychosocial / mental health aspects including knowledge, skills and response capacity, tested through exercises.
- **Research and Evaluation** cycles: there is the need for a coordinated agenda to build science and knowledge for all hazard PPRR.

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**Mental Health Planning includes**

i. Education and training to manage fears of contagion and isolation etc and promoting protective behaviours in the population, through to support of information and communication strategies.

ii. Psychological support programs for health care workers and others at potential risk.

iii. Pandemic planning and service protection for people in the mental health system – and “business continuity” of mental health care systems in the face of such threat.

iv. Assessment for those who may be at risk for, or develop, trauma related syndromes, or other conditions such as Medically Unexplained Physical Symptoms (MUPS) in association with this health threat and any consequences.

v. Planning for mental health issues related to isolation (e.g. quarantine), work, school and social network disruptions.
References


United Nations International Strategy for Disaster Reduction - terminology


Chapter 4 - Response: The Emergency

Response is the term used for the actions taken to deal with a disaster or threatened incident when it occurs, for instance, the hurricane ‘arrives’ and ‘strikes’ the population. A disaster may have an acute onset as for instance with an earthquake, a building collapse, transport incident or terrorist bombing, where there may be virtually no warning; or onset may be slower, such as a hurricane or cyclone, but still extremely devastating; for instance, Hurricane Katrina. “Response” is usually applied to describe the response to the particular incident, the acute emergency.

Response occurs at multiple levels

- **“First” response**: is usually the response of members of affected populations. This is usually spontaneous, but may be informed by prior experience or expertise.
- **First responders**: formal Emergency organisations and services whose role is to respond to manage and contain the emergency and its impact, such as police, fire and rescue, ambulance.
- **Multiple persons**, agencies, the media and those with a ‘stake’ or interest; who frequently converge on the ‘site’ of the incident – for instance the media; the curious, those looking for loved ones, to see, for a story and so forth.
- **Community leaders and governments** and those with responsibilities related to the place, people, organisations, community etc and the broader aspects of safety and consequences.
- **Broader community**. Members of the broader community, i.e. those not directly affected will experience a range of reactions, may demonstrate a strong wish to assist. Some may converge, perhaps as volunteers, i.e. respond.

**Aims**

To describe the common physical, psychological, social and mental health responses to (major) emergencies; their implications for the short and long term; and their management, including specific mental health aspects.

All other issues must be considered alongside these. The priority responsibilities of this phase are survival, protection of life, and safety.

**The Nature of the Emergency: All Hazard Disaster Experience**

People’s experience of the disaster and the specific nature of the particular incident may vary enormously. There may be, for instance, a prolonged warning period and expectation, as with some natural disasters. Other types of disasters may occur suddenly, unexpectedly, as with a terrorist
generated explosion, when people are carrying on their lives as usual, or even in holiday mode, as
with those Australians who experienced the Bali bombings. People may be uncertain as to the
nature of what has happened; a plane crash for example may be an accident, human error, weather,
or indeed terrorism and malevolent intent. Understanding what has happened may be immediate,
or delayed, uncertain, confusing and this may make it difficult to know how to respond in the
emergency, and leave one with a struggle to understand one’s reaction subsequently, or to make
meaning of the experience.

By definition disasters are overwhelming of resources and response capacity, at least initially. They
may be understood in terms of deaths, injuries, and destruction. They may be understood and
experienced, even by those most directly affected, in many different ways. For instance when
Cyclone Tracy “hit” Darwin, someone who had been through the bombing of the city in the Second
World War thought it was being bombed again. People’s stories of different experiences in the
same emergency are helpful in understanding this diversity.

Key Issues to take into account are:

• **Chaos is frequent** in mass disaster, especially if it has not been anticipated, prepared for, or
it’s nature is not clear.

• **Survival and Safety** are absolute **priorities** for those affected and for formal and all
responders.

• **Psychological** factors may be **very important** but provision of psychosocial response must be
secondary to strategies for physical survival and safety

• **First response by those directly affected** is likely to be the primary initial response.
Populations who have been prepared may be more able to respond in such circumstances.
Natural leaders frequently rise to enhance these primary actions for safety and survival and
may be supported by trained responders (including mental health) who are coincidentally
members of the directly affected group.

• **Formal responders** operate in structured and trained systems as a rule, until the emergency
is brought under control, and usually recognise and utilise local contributions, as possible
and appropriate.

• **Uncertainty** and possibility of criminal actions contributing to the disaster, for instance a
terrorist attack, may require formal police, security agencies and defense services to secure
the crime scene and protect from further attacks, the possibility of which is likely to lead to
ongoing arousal and fear.
• All responders, including mental health, should make their contribution in terms of the roles and responsibilities in line with disaster standard operating protocols or guidelines, including when and where they should be involved, how they will be mobilised and for what purposes.

• Collaborations by health and mental health responders with other leaders and relevant agencies with respect for their roles, responsibilities and contributions is also a requirement.

• Survival, Safety, and First not to Harm are predominant themes for all, including mental health workers, as is the requirement not to become a casualty.

**Mental Health Actions**

Mental health responders should:

• **Know their roles and responsibilities**, and their place in the team, and act and respond accordingly, and collaboratively.

• **Primary responsibilities during the emergency phase** for mental health are:
  - Provide support as and if appropriate, consultation and advice to leaders, by experienced disaster psychiatrists, or other expert mental health leaders
  - Practical assistance for survival, protection
  - Psychological First Aid and support as indicated for those directly affected in the emergency

• **Build their knowledge of**, and information about, needs of affected populations, including stressors to which they have been exposed, so that they can contribute to ongoing emergency response, or to planning for the aftermath.

• **Ensure they look after they own wellbeing**, and do not become casualties themselves. They should have limited tours of duty, step down procedures, and the like.

• **Demonstrate their spontaneous concern, empathy and humanity** but be constantly aware of the importance of focussing on priority actions and acute needs for those who are affected.
People in affected communities

Psychosocial impacts and reactions: These reflect basic human reactions to threat. They will depend on the level of perceived threat, and adaptive processes. Threat to life of self, loved ones is central and there are strong drives for survival.

Frequent Reactions to and in the Emergency:

- Shock
- Intense arousal, racing heart, alertness increased
  - body and mind mobilised for action
- Fear - re: threat to life of self, others, uncertainty
- Fight / flight / freeze reactions
- Other emotions e.g. anger, helplessness
- Cognitive and affective risk appraisals and response, → decisions, action. Rapid thinking and clarity are usual.
- Courage, altruism, action.

- The majority of people deal with emergency situations well and act for survival for themselves and others. They act with common sense and courage to deal with the threat’s impact, mobilising a range of skills.
- Reactions are influenced by the time period over which threat continues, whether there is ongoing threat, or it may return. In the emergency time may be perceived as slowing down or as going very fast – in retrospect this may influence what people report of their experience, for instant regret / guilt that they didn’t do more to protect themselves or others.
- Fear and arousal may continue until there is clear evidence that the disaster has passed and there is no further threat, the person is safe. For some it may continue beyond this, and into the aftermath.
- Progressively the extent of impact starts to be recognised as those affected scan their environment. This may lead to further shock and horror. The person may try to search or wander in an apparently dissociated state, placing themself or others at risk. This has been called the ‘disaster syndrome’. People also attempt to help rescue others, and to deal with the consequences. They may place their own lives at risk in this process.
- Searching for loved ones is a critical issue if people have been separated from them and do not know whether they have been injured or killed, whether they are safe. This is an intense reaction and will drive actions until it is clearer or contact has been established.
• **Affiliative behaviours** mean that people come together in groups for mutual survival and support. These reactions are likely to be intense through the emergency and its immediate aftermath.

• **People who are injured** may require support until triaged into emergency medical care. Physical First Aid knowledge can help to save lives in such circumstances.

• **People’s practical actions** to address the emergency and aftermath should be supported, where these are safe and appropriate.

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### Mental Health Actions

Mental health workers may be involved as:

- Members; themselves of the directly affected community
- Professionally, formally mobilised for the emergency, “indirectly” affected

**As members of affected populations they would:**

- Respond as other people, as above, positively and effectively with hopes, fears, courage
- Bring extra skills and knowledge to comfort those distressed, and provide practical and emotional support, broadly and focussing on survival, safety, shelter, care of the wounded, and so forth
- Link to their own primary group – family, sources of support; and assist others to do so as is safe, feasible
- Make themselves useful in the broad practical areas of need

**As professionals, formally mobilised, they would:**

- **As mental health leaders:**
  - Provide consultation and support as appropriate to leadership within response structures
  - Assess extent and nature of disaster, deaths and losses, destruction, disruption, and mobilise necessary support for affected groups in the emergency and for transition to recovery
  - Commence planning for recovery mental health program, including potential follow-up / outreach
- **As disaster mental health responders:**
  - Work where and as deployed, for priority mental health contribution to emergency goals of survival, safety and care of injured, plus practical support under general principles of Psychological First Aid (see below)
  - Protect the mental health of vulnerable populations as far as is possible in the emergency, for instance children, those with existing mental or physical illnesses, disabilities, and so forth.
  - Contribute to response, transition and planning for recovery, as appropriate.
**Mental Health Actions**

Consultation processes between mental health and emergency responder organisations should be built before a disaster occurs. The disaster focused consultation should build on trusted relationships built with and by mental health services, shared planning and exercises and potentially a service agreement or Memorandum of Understanding (MOU).

Specialist mental health support should have:

- Contributed to training for emergency responders including
  - Management of personal stressor experiences
  - Management of psychosocial issues in the emergency (e.g. emergency mental health tool-kit)
  - Management of those acutely distressed (e.g. P.F.A.)
- Provide a contribution to briefing of those to be deployed, on psychosocial aspects of response and self-care
- Provide for consultation back-up and support to be made available for teams, emergency responders and their managers
- Provide a system of support or other ways of assisting emergency responders’ family members if required
- Plan for outreach, support and follow-up through step-down and subsequently after the acute incident in consideration of possible mental health vulnerabilities
- Ensure throughout provision and updating of information to assist response plus appropriate communication strategies to address behavioural or psychosocial matters of concern
- Contribute to review, recognition, validation of experience and achievement, and support leaders in these processes.
- Ensure information about indicators of possible mental health problems and how and where assessment and assistance are available, for such workers and their families, including EAP and other external providers.
The Broader Community and Stakeholders
When a major incident occurs it is fair to say that everyone is “interested”, or a “stakeholder”.

Key issues include the following:

People generally will react in multiple ways that are “normal”

- Identification with those affected – it could have been me, mine
- Disasters generate shock, altruism, wish to help those affected
- Curiosity: wish to see; to know about what has happened
- Fear: maybe it will extend / affect me / return, e.g. terrorism
- Concern as it could affect me / my family / my interests, e.g. business, work, economy, safety
- It has affected me / mine / my assets / my future / what to do with associated anger, grief etc

These and other human responses are in the spectrum of “normal” and “understandable”. However they frequently mean that people converge on the site and in other ways.

Convergence of excessive numbers will need to be managed by those controlling the site e.g. by Police. People may demonstrate a range of reactions, including, grief, anger, wish to assist or other reactions in response. Advice about positive alternative strategies or other actions can be helpful in managing this convergence. Convergence of volunteers also needs to be managed separately both before and during a disaster emergency. A resource has been developed to assist in preparedness and management of volunteers in the Australian context, The Spontaneous Volunteer Management Resource Kit and Presenter’s Guide, (Australian Red Cross & Australian Government. See Appendix B).
Mental Health Actions: Strategy and Components of Response in the Emergency for Broader Community

This includes the following:

1. Population Levels
   - Provision of expert advice in communications provided, building on relationships and strategies developed beforehand (see Prevention, Preparation). This should be honest, trusted, focused, reflecting confidence, competence, concern and commitment to those affected and the population more broadly.
   - Information processes should be established covering where people can find out more e.g. safety, victims, loved ones, what to do etc.
   - Consultancy and advice re psychosocial aspects to support directly affected and indirectly affected organisations and to facilitate those affected returning to functioning e.g. schools, essential industry etc and their leaders.

2. Individual and Clinical levels
   - Establishing planning process for transition and mobilising outreach, “ready-to-go”, web based strategies, including self-care and self-help, where to get such help, service readiness to provide for mental health assessment, management, and effective referral if required. Delineating access and care pathways is essential and often difficult in the immediate aftermath, particularly of there has been major damage to infrastructure.
   - Clinical access for query, assessment through existing settings or those mobilised, would involve call centres, outreach programs, drop-in centres with information about what to do for one’s self, and when to get help, as well as what existing services provide.
   - Specific strategies to establish systems to look after psychosocial aspects of physical injury, i.e. acute needs of those affected and their families, for instance through consultation, liaison, integrated approaches, etc. for emergency department and through stages of acute care and subsequently.
   - Specific support for those potentially or actually bereaved, plus those who are very distressed, displaced, or otherwise in need.
   - Psychological First Aid and Personal Support for those affected in the community.

3. Mental health and psychosocial aspects for media. Media are acutely involved in the emergency and depicting its extent, horror, deaths, losses and so forth. Media roles are mostly positive but may require advice e.g. re avoiding
   - Excessive replays of trauma / horror situations
   - Exposure to pictures of mutilated human remains.
Media staff may also be directly impacted by the closeness to trauma and loss and may require personal support and access to care. The DART Foundation (www.dartfoundation.org) is a media driven group with aims of supporting members of the media personally, and their systems, as well as how they engage with affected persons.

Partnership with collaboration and support for media, about psychosocial/mental health aspects, should be built from the beginning (Prevention, Preparation phases) and mobilised specifically for the emergency need (Response) and later aftermath (Recovery).

**Vulnerable Populations**
These include but are not limited to

- Children may be specifically vulnerable for developmental and other reasons such as pre-existing family disruption or conflict.
- Minority populations, particularly those of culturally and linguistically diverse backgrounds.
- Those ethnically or otherwise related to perpetrators (e.g. terrorists responsible for the attack) who may need particular protection
- Migrant groups who may be more vulnerable, threatened, less knowledgeable, previously traumatised and the like, or be isolated by language and culture, so may be more affected
- Indigenous populations who may be disadvantaged, separated from the non-indigenous population in more remote areas, and more vulnerable for multiple reasons of social disadvantage, prior trauma etc.
- People with pre-existing physical or mental illnesses and disabilities may be unable to respond and may require specific protection and assistance, including to ensure continuity of treatment, medication etc.
- Other groups that are disadvantaged, socially excluded, lack resources, access etc.
Mental Health Actions

Prevention and Preparation should include recognition of such groups and their potential mental health needs in the face of threat. Mental health protection strategies and assistance should be mobilised, having been established beforehand. This is usually linked to broader strategies for some, such as the frail aged, disabled or institutionalised persons. Mental health should work in conjunction with such agencies.

Strategies for such populations include those at:

Population level:

- Communication, information and psychosocial aspects of advice and support in partnership with community leaders, media and language and cultural representation.
- Specific strategies for protection of children in the emergency response
- Specific support and outreach strategies to facilitate safety and survival and to avoid negative stereotypes and consequences.

Individual/Clinical

- Assuring children are safe, protected, with parents or a known adult, and supported and cared for in developmentally appropriate ways
- Engagement of multicultural and mental health care systems to promote outreach and support as required.
- Engagement with indigenous leaders and organisations to ensure needs are recognised, and appropriate outreach and support are available.
- Medication and treatment continuity as far as possible for those with pre-existing, chronic illnesses, and the specific needs of those with pre-existing mental illnesses
- Practical and resource needs should be adequately addressed, e.g. for those who are unable to move, or who need to be provided with food, water, and other resources.
- Psychological First Aid, Personal Support and strategies to support resilience should be in place and available, linking to existing systems and leaders, for such vulnerable populations and groups. Responses to the emergency and subsequently should be provided in partnership with them, their government and non-government agencies, and in ways appropriate to their specific needs.
Community Leaders and Government

Most community leaders and governments respond well in the emergency, building on their understanding of need and engagement previously, as with Prevention and Preparation aspects of All Hazard planning. There is significant development of well-researched resources for advice regarding acute needs and communication in the emergency. It is important that these processes are informed by psychosocial and mental health aspects, knowledge and skills.

Nevertheless leaders are themselves likely to be affected as human beings by the terrible nature of disasters, the deaths, and destruction that have occurred, on their “watch”. Leadership will be demonstrated through communication, behaviour of response, and humanity.

Important aspects of leadership include the following:

- Compassion and understanding, the capacity for “human” response (e.g. tears), comforting behaviours and possibly going themselves to affected regions (without placing themselves and others at risk by doing so) all give reassurance to affected people that their experience, their courage, their suffering and needs, are being recognised.

- Effective communication, messages or presentation through TV and other media and throughout, making their “face”, “presence” and commitment strong and clear.

- Leaders need to demonstrate their strength of resolve, their capacity to see “their people” through the disaster, but to do this as “we”, “we’ll do it together”, “I’ll support you through this”.

- Leaders are usually aware that they will be most effective through such emergencies if they demonstrate honesty, confidence and competence through their general leadership skills. They should not be drawn into promising what cannot be delivered as they may be tempted to do in the emergency e.g. by statements such as “we will return everything to what it was”

- Leadership best reflects acknowledgement about what has happened, reassurance about the support of relevant authorities, of government; as well as peoples’ strengths and capacity, (“we will get through this together” etc, or “yes, we can”); their resilience, and the capacities of communities, systems, organisations etc; as well as a focus on what can be done, are important themes.

- Leaders may need support to avoid over-commitment or being overwhelmed. This can occur through having a strong deputy or assistant; a leadership team with members who are known or become known, respected and trusted; is important. Leaders need to acknowledge and use these human resources well.
• Leaders may be affected by disasters in direct personal ways, as well as through their leadership roles. Their own needs require recognition and support in appropriate ways.
• Leaders may get into difficulties and need to recognise and address these, or hand-over if necessary.

Mental Health Actions

Mental health / psychosocial aspects need to be mobilised in ways which build on trusted processes and strategies developed beforehand, especially through Prevention and Preparation.

• Consultation processes and guidelines ideally should be put in place beforehand and supported by education, training and practice at the level of leadership processes. This should involve communication skills as a key element.
• Consultancy with trusted mental health experts and leaders should be mobilised once emergency commences / is declared, and be available confidentially through this and the aftermath, should it be required.
• Leaders should be provided with information and advice about psychosocial aspects of their role, including actions, communication and the specifics of the incident and supported in their decision making.
• Leaders should be provided with advice, skills, knowledge about systems and organisations they lead and the broader community, and significant human and psychosocial implications of the disaster for these.
• Leaders should be briefed about the possible stresses they may need to prepare for or deal with, for themselves and possibly their families, strategies for resilience enhancement, and how and when to access additional support that is trusted and confidential.
• Local leaders should be supported in the specific leadership aspects of emergency and aftermath and the psychosocial aspects, when they have taken up the local emergency leadership through these periods.
Mental Health Emergency Response Tool Kit

Essential components to support emergency mental health response, built on current science and experience, include:

i. **Information, Communication, Data Strategies**
   Utilising earlier established and prepared systems, these should be activated and mobilised to reflect the specific aspects of the particular hazard, its emergency impact and associated needs for response and potentially subsequently. A number of examples of this exist, including that of Ardalan et al (2008) where existing disaster resources to inform response and recovery were developed for a “Just-in-time” course building on a “Super Course”, a web-based training course developed by a panel of experts to reflect specific disaster needs, making these rapidly available. Data on numbers affected, deaths, injuries, resources destroyed, and registration of affected persons are critical components.

ii. **Risk and Risk Management**
   Clarifying levels of ongoing risk, both from external sources such as further terrorist attacks, or from individuals or populations, including potential behaviours that may occur where there is uncertainty, ongoing fear, etc, are important aspects. This includes providing information such as protective behaviours required for safety.
   
   • Evaluation of potential for acute, severe and continuing distress and its management
   • Psychosocial aspects of fear generated and anger re: vulnerabilities, for response action — e.g. anger and increased risk taking, violence toward minorities perceived as connected to the hazard; or managing acute fear and arousal with slow breathing, calming techniques to focus on ‘safe’ actions to assist emergency response
   • Planning for management of effects of ongoing ‘risk’, e.g. withdrawal, over-protection, social and practical process, and how “to live with risk”.

   Public and other education about risk is important to management.

iii. **Scanning and assessing acute and ongoing need**
   This occurs at broad population levels or individual acute levels during the emergency phase and needs to be managed as appropriate and linked to transition and subsequent planning.
   
   • Population level assessment of psychosocial need – numbers of deceased, injured, homes lost, infrastructure damage, dislocation, and ongoing threat, vulnerabilities of populations such as socially disadvantaged; while supporting community resilience
• Supporting and assessing ongoing needs of affected persons, for instance at the site, if present there, or in reception / evacuation centres, hospitals, walking wounded, primary care / general practice
• Addressing and using tools for rapid psychosocial assessment and triage. These can be described in terms of triage and brief assessment measures, examples of which are provided in resources in Appendix C (NSW health brief assessment protocol).

iv. Psychosocial / mental health Interventions
These are provided where appropriate and with the support of the emergency organisational management structure and strategic framework, for instance:

Population level - these are encompassed by
• Information and communication strategies
• Outreach programs for the emergency and subsequently, e.g. call centres etc

Individual / clinical elements are
• Psychological First Aid
• Personal Support } See below
• Resilience Enhancement
• Brief assessment, review and back-up strategies for acute management or referral of those acutely traumatised, injured, bereaved, i.e. at high risk or with high need
• Meeting mental health needs of vulnerable individuals, e.g. mental health protection strategies for those with pre-existing mental or physical illnesses
• Other emergency interventions if required

v. Self-care and effective mental health roles
A key principle of disaster response is not to become a casualty oneself. In addition mental health workers should be skilled and update, know their roles and responsibilities, e.g. “first not to harm”, and use their common sense and core skills. They should have a family plan so they know likely family strategies for safety, and can then fulfil their own professional roles. They should use strategies for calming, focussing and discussion making, for managing their
own risk perceptions and fears. Ideally working with a buddy or team across the emergency will assist response capacity. Most should be reassured in their actions and responsibilities by knowledge of their personal strengths and supports, and capability to act quickly to address priorities, take action or otherwise.

vi. **All Responses must be integrated with physical health and other emergency priorities that take precedence.** Key elements: survival requirements and the priorities of Emergency Response Systems are in rescue, acute lifesaving, stabilisation and triage; to achieve optimal outcomes, and to facilitate rapid return to functioning. Key elements are: survival requirements, practical needs for safety and shelter, plus sustaining life, resuscitation and transfer to further emergency or other care.

**Major Mental Health Strategies in the Emergency**

**Psychological First Aid (PFA)**

This is a broad strategy developed from earlier recommendations and utilisation, for instance in military and disaster settings. Psychological First Aid (PFA) has been agreed by international consensus and is well developed as a safe strategy (i.e. does not harm), which builds on spontaneous human responses of support for others. It is informed by scientific evidence and widely used in the face of disaster. The recent draft model from WHO, World Vision and international agencies provide an important and useful framework. However it should be noted that there are many similar models, also named PFA.

This strategy has been provided across a range of strategic frameworks from those attuned to distressed persons, including children, during the emergency and immediately after, to more clinically focused models. All aim to assist with people’s responses to a disaster, taking into account the diverse All Hazards that may be involved. All are also based on principles of “first not to harm” and to the priorities of physical survival and safety.

The model adopted in Australia builds on earlier consensus processes (US Consensus Conference for Early Intervention after Mass Violence, [www.nimh.nih.gov/health/publications/massviolence.pdf](http://www.nimh.nih.gov/health/publications/massviolence.pdf)) and National Centre for Child Traumatic Stress Network (http://www.nctsnet.org), and practical strategies that have been used in disaster response. It is in line with the draft guidelines from World Vision, the World Health Organisation and War Trauma Foundation (2010).
Key elements are indicated. These should always be shaped with flexibility and responsiveness to survival and safety priorities and human needs of the particular emergency.

- Survival, Safety, Shelter, Security
- Supplies – water, food, warmth
- Support and comforting
- Linking, Reunion, with family, loved ones
- Information, communication
- Triage for needed assessment, care (e.g. injury, dysfunction)
- Registration and support for transition

In working with people affected by disasters in the emergency, including using PFA as an approach, workers should be sensitive to the fact that they are dealing with reactions to an extreme or abnormal experience, and that they should not view those they engage with as patients or clients, or diagnoses, in this process. Rather they should recognise that they are usually dealing with normal people reacting to extreme experiences.

Key aspects to remember: Psychological First Aid is a set of strategies, which reflect the best of human spontaneous response. They should not replace the “ordinary kindness” with which people help one another in a disaster. Psychological First Aid skills alongside other immediate responses are best as something integrated with practical strategies to protect, make safe and meet basic needs, as well as management of the injured and affected. An example developed for emergency services is attached in Appendix D.

Psychological First Aid strategies can also apply to other circumstances of acute distress, for instance related to exacerbations of reactions during recovery, or to additional stressors and reminders.

Psychological First Aid is the appropriate strategy for those affected by disaster. Critical Incident Stress Debriefing was previously used but is not effective for disaster affected populations and may make some people more vulnerable to psychosocial morbidity (Raphael and Wilson, 2000).

Psychological First Aid is accepted by the World Health Organisation (http://www.who.int/en/), National Centres for PTSD http://www ptsd.va.gov/) and National Child Traumatic Stress Network (http://www nctsn net org) in the USA; Australian Centre for Post-Traumatic Mental Health (http://www acpmh unimelb edu au/), Australian Psychological Society

Psychological First Aid may merge into broader Personal Support strategies.

**Personal Support**

This is more likely to be a follow-on process for the transition and aftermath.

This is a broadly used phrase, particularly developed and conceptualised for non-government and volunteer organisations or more broadly. It needs to be distinguished from:

- General counselling
- Specific skilled counselling e.g. grief / trauma
- Specialised psychological interventions

It represents continuity with, and some merging of, the principles of PFA, as extended into further circumstances of support. It involves similar ideas, i.e.

- Contact and engagement
- Assisting with practical needs
- Allowing people to talk but not probing
- Focusing on actions for the here and now
- Linking and referring if needed for more detailed, specific assessment and counselling including for health more broadly, e.g. to GPs, as well as to Mental Health services or providers.
- Follow-on contact and needs assessment, possibly over time
- Connecting people to social networks, resources, systems of response and practical engagement for response and recovery.
Resilience Enhancement

As noted earlier, the majority of people and communities are resilient. Strategies that could enhance resilience include:

i. Recognition of and support for people’s strengths in both engagement and assessment, while acknowledging need and possible suffering

ii. Identification of adaptive coping strategies that people have found helpful and help them to utilise these for current challenges

iii. Education and provision of simple strategies about stress mitigation and management for instance avoiding stress overload, reframing stress as challenge, slow breathing, others as indicated

iv. Connectedness and mutual support. Linking to and utilising social networks or establishing new ones with those who have been through the same thing, highlighting benefits for all parties of mutual support

v. Strengthened family connectedness in terms of children’s needs, parents needs and engaging them where appropriate in response and recovery after this

vi. Validation of people’s experience and acknowledgement of their courage for survival; and reinforce these as resources for the emergency and aftermath.

vii. Resources access: Identification of resources that will be helpful - practical, financial, government, community, psychosocial, and how people will be able to access these

viii. Actions: Engaging people in practical actions to deal with impacts, solve problems and to work practically with “hope”, ideally with other community members for concrete tasks for recovery.

Remember resilience and psychosocial problems can both occur. People may be resilient in different aspects of their lives.

- Resilience is related to courage, hope, and to a degree to the capacity to take actions, face risks, for the future.
- Resilience is a core attribute of people and societies
- People’s joint actions and coming together in survival and aftermath potentially strengthen many aspects of societal / community resilience
- Resilience is a process, and may vary over time and with different challenges
Community resilience includes many of these aspects but also relates to social capital, connectedness, community competence, and access to resources, communication and information and the capacity to utilise this. It also reflects the strengths and responsiveness of community institutions, of organisations, systems and governments. Resilience and other disaster adaptations, including posttraumatic growth, are dealt with in detail in subsequent chapters.

**Triage for Mental Health Needs**

Psychosocial support, Psychological First Aid and Personal support may not be enough and people may need to be triaged for mental health assessment and management. The following diagram symbolises this process in the emergency setting. Psychological Triage is represented in the following diagram (Figure 4.1):

![PFA, Triage, Assessment, Screening and Actions Diagram](image)

Adapted from Raphael, B. (1986)
Strategies for Triage and Management

Triage
Triage is a process of assessment and identifying high immediate need with rapid transfer to appropriate emergency care.

- Identify those in immediate need and ensure care
- Decompensation – requires acute mental health assessment
- Higher risk – support and follow-up
- ABC of mental health triage: Assessing and responding to
  - Arousal – high intensity
  - Behaviours placing the self or others at risk
  - Cognitions – disruptions of normal thinking processes

Arousal
- Comfort and reassure
- Provide a sense of safety
- Slow breathing and grounding techniques
- Provide for basic needs (eg warmth, security, shelter) and link families together
- Support and protect until clarified or refer for further assessment and management

Behaviours
- Protect from harm due to high risk behaviours
- Contain, and identify and address concerns such as looking for family members
- Engage in constructive activities, practical actions, and helping others
- Monitor and return to routine activities if possible
- Support and protect until clarified or refer for further assessment and management

Cognition
- Communicate simply and effectively
- Orient to the situation
- If person is confused, check whether they know where they are and what day it is
- Monitor over time
- Help the person to focus
- Protect from further confusion
- Support and protect until clarified or refer for further assessment and management
Ongoing high levels of distress and disruption of functioning; the inability to resume safe and more normal behaviours (even if still distressed); ongoing confusion and disorientation; may mean that the person needs further specialist mental health assessment.

Core Generic Principles: Emergency & throughout Transition and Aftermath

Hobfoll et al (2007) have reviewed the scientific literature about management in the acute phase and immediately after and concluded that there are 5 key principles that should inform response and management. They are the basis of many service models of emergency support and Psychological First Aid

- PROMOTING SAFETY
- PROMOTING CALMING
- PROMOTING SENSE OF SELF AND COLLECTIVE EFFICACY
- PROMOTING CONNECTEDNESS
- PROMOTING HOPE

These are important and useful principles and can help to mitigate distress and enhance resilience. These are further supported by:

- PROMOTING INFORMATION, COMMUNICATION, BUILDING KNOWLEDGE
- PROMOTING PLANNING AND MONITORING EFFECTIVENESS OVER TIME
- PROMOTING PEOPLE’S AND COMMUNITIES’ ACTIVE ACTIONS AND ROLES IN THEIR OWN RESPONSE AND RECOVERY

Compassionate engagement, and responsiveness to need are overarching themes.

Terrorist attacks: specific mental health considerations in the emergency

Terrorism has additional stresses and psychosocial aspects which can effect mental health in the emergency and subsequently. Mental health knowledge and skills can assist more broadly. These relate to:

i) Lack of knowledge about, and familiarity with, these types of attack and threat, particularly in terms of timing, target, possible multiple attacks and agents, such as chemical, biological
and radionuclear components. Information about the level of ongoing threat and possibilities regarding different types of attack create additional levels of fear.

- Communication: generally according to what is known to be helpful
- Simple communication re: effective actions such as washing off agents where appropriate or shielding can assist – advice and demonstration help.

ii) **Dealing with the dread, fear and anger** associated with acute realisation of a terrorist attack.
People can be helped by clear communication from leaders and responders, capacity for self-calming (e.g. slow breaths), action focus for self and other protection

In the event of such an incident psychosocial interventions aim to focus on calming, communication and supporting those affected to act as directed, evacuate, shelter, or seek further advice.

iii) **Capacity for some action** that is effective to protect life, safety, health, can assist with managing fear of contamination, or irradiation, or contagion as well as fears of further attacks. Supporting access to information and follow-up assessment is important.

It is also useful to try to mitigate the flooding of health care resources and excessive evacuation through fear generated by the threat and uncertainty.

Strategies for decontamination are important in such instances and are set up by emergency services. People may also need psychosocial support to deal with these experiences.

Two major themes create ongoing uncertainty and fear in relation to terrorist attacks:

- Possibility of future attacks with uncertain timing and target
- Ongoing health fears from any CBR or unknown agent attack (e.g. fears of cancer, genetic damage)

Both these sources may generate psychosocial and mental health problems, as well as health concerns broadly. Detailed information is available (Stevens & Raphael, 2008, and Raphael 2008).

It is also important to recognise that a terrorist attack is a criminal act in Australia and that any site is thus a crime scene requiring control by police and requiring collection of evidence and so forth. Explanation and support regarding these issues may assist people to understand and manage these processes.
**The experience, the story, the narrative**

People may informally “debrief” by telling their story, and sharing concerns. This conceptualisation has a common understanding. In providing psychosocial support in the emergency phase people may wish or need to talk. It is important to listen, but not to probe, if this occurs. However in the emergency there are usually competing priorities for survival, practical action and so forth. Response to the human story should be supportive generally, with compassion, acknowledgement of the person’s experience, and non-judgmental. The focus should continue to be on supporting the person’s own practical actions, and facilitating safety, reunion, and ongoing functioning. Linking the person to family, other members of their network, or with those who are sharing a shelter or other safe place, may provide additional support.

People should be protected from undue pressure to tell their story of survival by media or “counsellors” or others, until they are ready to share this narrative when and how they may wish to make meaning of, and share, their “testimony”. Validating the significance of this for them is important. It is also important to remember that this is their experience, and their story.
References

Australian Centre for Post-Traumatic Mental Health - http://www.acpmh.unimelb.edu.au/


National Center for Child Traumatic Stress Network - http://www.nctsn.org


Chapter 5 - Recovery: The Aftermath

Recovery refers to the period and processes after the emergency phase of the disaster incident, as people and communities adapt and reconstruct their lives and societies.

Aims
This chapter aims to describe the nature of, and factors influencing, “recovery” from disasters, including risk and protective factors, resilience, post disaster “growth” and developments in human, societal and other terms. It will specifically address mental health in this context, taking into account risk and protective factors, which may influence mental health consequences, and their relationship to health more broadly, and other aspects of recovery. It will also provide an overview of the service systems and interventions that may mitigate mental health impacts and those that may enhance resilience, taking into account population level approaches as well as clinical service delivery.

It will address assessment strategies, mental health interventions and the evidence base, as well as evidence informed good practice. It will consider these broadly as part of a strategic framework across populations, life span and the range of disasters and resource bases. It will identify the partnerships, collaborations and consultancy processes that are essential for the delivery of these strategies in the Australian context. The principles of mental health and related specialised interventions will be briefly described, and the specific strategies will be dealt with in detail in subsequent chapters.

Transition from Response to Recovery
Throughout the domains of PPRR there may be variable delineations of different stages – for instance the movement from preparedness to response when the onset of the incident is progressive or unclear. The concept of transition from response to recovery addresses significant issues:

i) Firstly if there is ongoing threat or severe uncontrollable continuing impacts as with “mass natural disasters”, the emergency aspects may continue, or be formally ceased.

ii) Making linkages between those affected in the acute impact and follow-up for care may be difficult because:
   • They may not have been identified and many not be able to be readily followed-up
   • They may be dislocated from home and community
   • They may be injured, separated from family, bereaved, confused, disorientated
They may be fearful, frustrated and aroused by constant reminders

iii) Governance changes from the emergency command and control, to coordination and collaboration, with the establishment of the recovery program. There may be little in the way of formal handover of responsibility for health, mental health or other aspects. If those affected are formally in the health system (e.g. hospitalised, this may enable linkages and follow up. This type of connection is rare for many of those affected, so handover of key findings, linkages, knowledge about risk and need for care should ideally be facilitated for follow-up strategies.

Recovery is a concept that has been in use in the post disaster context and has been supported through a range of frameworks, both internationally, and in Australia. It aims to mitigate adverse human, social and economic consequences of disasters. These strategies are documented in a number of reports including those from a variety of agencies such as Emergency Management Australia (Natural Disaster Relief and Recovery Arrangements Guidelines, 2007 and Australian Emergency Manual Series: Manual 10 - Recovery, 2004).

Recovery Programs – General Models encompass the following

- Community based programs and community engagement, involvement and management of recovery
- Bringing resources together in “one-stop” programs where diverse agencies work collaboratively to provide practical assistance and support. These include Local, State, Territory and Australian Governments and their agencies, non-government, private sector and community groups
- Non-government agencies such as Red Cross who play important roles
- Information about availability of, and access to, services, resources and so forth
- Information and resources to support “rebuilding” and related strategies where there has been mass destruction, with priorities focusing on infrastructure, utilities and housing
- Government, non-government and other agencies and services that are relevant for particular disasters, including but not limited to financial support, resource provision

Thus it is important that mental health and other planning provide or develop systems to facilitate transition, continuity, safety nets for those who have been affected in the emergency; for responders and staff, and for engagement and opportunities for continuity of support, and if needed, assessment, to address emerging pathologies and resilience.
agencies, e.g. Centrelink, insurance representation, Red Cross and related support societies, housing groups, legal services, health and other services

- Mental health service providers, who are usually there in advisory roles
- “Counselling” groups who may provide general support, assessment or referral to specialist services. The requirements for such roles will be discussed below.
- Health providers that may be mobilised including general practitioners, and resources mobilised through their processes such as psychological support funded through Medicare; community health; and other health providers.
- Various outreach and community initiated programs.
- Options for referral to specialised clinical services, medical, mental health, rehabilitation, and other programs.

These programs for the most part have been viewed as effective (Australian Emergency Manual Series: Manual 10 - Recovery, 2004). However the specific mental health components require more focused attention, as demonstrated in two independent studies (Parslow et al 2005, Parslow et al 2007, and Camilleri et al 2010) which demonstrated ongoing PTSD patterns linked to the Canberra 2003 bushfires, as assessed several years later. The field of disaster mental health has progressed significantly in recent years, but there is a need for more systematic research, for new models, evaluation of services provided, and improved outcomes.

This broad model of recovery fits more appropriately with “psychosocial” aspects of support and intervention addressed by the WHO Sphere Guidelines (IASC 2010). As these guidelines indicate, “mental health”, also needs to be addressed by specific mental health assessment and intervention strategies.

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Key elements for mental health as a component of the overarching recovery program will be informed by the Mental Health Recovery Plan, shaped to meet potential mental health needs of the specific disaster or hazard, and building on the earlier preparedness planning.
Recovery and the Disaster Experience
The frameworks for recovery programs deal with the broad domains listed above. However, these should always be influenced by the nature of particular disasters; the populations that have been affected; their specific experiences in the emergency, and ongoing consequences.

It is critical that recovery programs engage strongly with affected communities (including diverse types of communities). Ideally recovery programs should have local leadership and collaborative management with their “communities”, and lead a recovery process responsive to their identified needs.

Recovery needs to have available effective organisations and systems to assist people, provide necessary information and communication, to mobilise institutional functioning and infrastructure, and to access resources. Many such resources require complex submissions to or engagement with government, insurance, and other agencies. People may well need both practical and emotional support to negotiate these to have their needs met.

The transitional and recovery strategies need to link people to systems that can address these needs, including practical resources; health care; aid; accommodation, shelter and supplies; and ultimately into functional and linking systems for family, school, workplace and the like.

Some issues may need to be addressed with linked support and services from the emergency through to, and beyond, the recovery phase, for instance for infants, for frail elderly, the ill, and the very disabled.

Mental Health Implications
From a mental health point of view this process may include:

- Psychological needs of people severely traumatised, for which they may require assistance, through process of registration, health care provision and rehabilitation
- Bereavement-related needs, for instance with a Family Liaison Officer from the time a family member is realised potentially deceased; through searching, formal DVI processes of DNA and similar investigations to the formal identification, then funeral and related societal rituals. This may be linked to skilled support, counselling, care and coming to terms with the changed life roles.
- Dislocated people and populations through to safety, shelter, survival of the emergency and to places of temporary and later more long-term accommodation, through workplace change, and the like, school disruptions, and loss of community supports.
These pathways and linkages need to be thought through and formulated in the transition and through the recovery processes. Planning needs to consider and address such needs.

**General Recovery Programs and Mental health**

Mental health is usually a significant component of recovery programs post disaster.

**Mental health: Leadership Roles**

Mental health leadership should have a role in or link to governance of the recovery strategy to provide consultancy and advice from a senior, experienced mental health leader with disaster expertise. This can include or facilitate provision of:

- The Mental health Disaster Recovery Plan and its management, in partnership with leaders of affected communities, and engagement in the recovery plan of key stakeholders. This plan should be integrated with the overarching Recovery Strategy.
- Active collaboration with other key agencies, such as welfare, general health etc
- Participation in and support for affected communities and for their roles in active leadership in the recovery process, in view of the likely benefits for those affected of involvement in this, for instance through involvement in management, governance or through the establishment of a Community Advisory Group or similar process.
- Support processes for other recovery workers: for example advice about mental health matters that they may encounter in their recovery roles; self-care and support strategies. These support processes could include: group discussion, or individual advice depending on severity / need.
- Mental health services contributions, including access, systematic assessment and documentation, clinical, and review processes, counselling and follow-up programs. These would include over-sighting, organisational, and service provision aspects.
- Mental health Information, Communication Strategies relevant to the community and as part of the implementation of the overall mental health recovery plan, including information, resources about normal reactions and problems, self-help guidelines, and where people can get help.

This type of involvement, i.e. overarching engagement, consultation and coordination of mental health resources, should be reviewed and monitored regularly; so as to be responsive to changing patterns or problems; emerging need; or emerging independence, and lack of need.
Mental Health Post Disaster: Mental Health Disaster Recovery Plan

This plan is a specific mental health recovery plan, which identifies aims and services that will be provided to meet populations’ and individual’s potential needs, for this specific disaster. It will be guided by templates such as those of the World Health Organisation (WHO-AIMS-E), by Australian and jurisdictional requirements, and identified priorities and needs. It will build on two processes

A. Evidence from previous disaster experience and disaster research where available, about

- Likely mental health consequences
- Risk factors and vulnerability factors
- Resilience, protective factors
- Populations with particular needs
- Health and societal consequences
- Effective interventions
  - Population level
  - Clinical/individual – Early, Acute & Longer Term

B. Data from this disaster hazard: progressively informed, e.g.

- Type of disaster including nature of threat
- Numbers and nature of deaths, injuries
- Destruction of Resources, Housing, Infrastructure, Systems etc
- Populations / groups likely to be more specifically affected in terms of mental health consequences:
  - Directly affected persons e.g. life threat, injury, exposure to deaths of others
  - Bereaved people
  - Children & adolescents
  - Those experiencing multiple losses, home, work etc
  - Others who may be vulnerable – such as those people with pre-existing illnesses and disabilities (mental or physical), trauma e.g. refugees etc
  - Indigenous groups (pre-existing disadvantage)
  - Culturally & linguistically diverse groups
  - Those dealing with ongoing community disruption and dislocation including organisations, schools, businesses, communication and other institutions and systems; dislocation from home, community.
These two sources of information are likely to be broad estimates initially, but will enable projections about potential service need, including specific strategies, how access can be optimised and where assistance will be more appropriately provided and most effective.

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<th>Mental Health in the Aftermath</th>
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<td><strong>Key Issues</strong></td>
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Mental health should be seen in contexts of needs and strengths of communities and their leaders; families and their members; societies and their capacities.

Resilience is the Norm but
Problems and suffering may also occur,
And can be helped

Return to functioning systems and of people to these,
e.g. family, school, work, life etc. is helpful,
even if there are ongoing difficulties to be dealt with

Information about when, how and where to get help as well as what people can do themselves, is critical

People’s Practical Actions & Access to Resources can enhance all recovery processes
Hope, Capacity for Effective Action and
Positive expectations can assist alongside
Compassion, Connectedness & Care
**Mental Health Strategic Framework**

This planning and implementation strategy is closely linked to the health response in the emergency and subsequently. It involves components: at the population of public health level; and at the level of individual, clinically focused programs. It includes prevention, early intervention, treatment and rehabilitation as appropriate on terms of assessed need.

The following outline is generic and should be aligned with jurisdictional requirements and specific disaster health and mental health plans. Different jurisdictions may align mental health with acute health initially, but for the recovery periods, while retaining general health collaborations, it may also be linked to the various recovery and welfare agencies.

**A) Public Health: Population Approaches**

These involve a number of broad strategies, with which mental health aspects may be integrated, or they may be provided independently as mental health programs.

i) **Information, communication, and advice.** Information about what has happened; what people may need to do, for instance where they can find out about loved ones; what they need to do to protect themselves in the case of ongoing threat, how they can find shelter, food or supplies and so forth: this is often critical, especially in the early stages, and different information may be required later. This is also the time where realities of the disaster and its impacts are progressively confronted, where losses become reality, destruction is obvious and it is clear that life is and will be different because of what has happened.

**INFORMATION FOR THE PUBLIC / POPULATION:**

communication and information should include:

**CONTENT**

- Clear, simple, advice
- Addressing priority issues
- Key principles: honest – i.e. what is known / not known
- What government / bodies, agencies are doing
- What people can do themselves,
- Timelines for further information

**DELIVERY**

- Media, multi sources, access, web etc
Communicated by trusted sources and through multiple channels
- Timely & regularly updated
- The information process is made clear: i.e. what the ongoing information and communication processes will be and how they will be available and able to be accessed
- Two way or iterative – e.g. questions and answers or response options

**SPECIFIC MENTAL HEALTH INFORMATION FOR THOSE AFFECTED**

This should deal with people’s needs, and potential sources of assistance; for those distressed or concerned. It should deal with

- Information on ‘normal’ reactions, problems, self-care
- Call centre numbers etc
- Where to get help, how to access it, what to do
- Pamphlets, resources providing guidance and access to assistance
- Specific information about possible deaths and injuries of loved ones and how and where to seek information and assistance about their needs.

**MENTAL HEALTH INFORMATION FOR RECOVERY AND HEALTH AGENCIES**

A further important aspect of the provision of information about mental health in the disaster aftermath is ensuring that it is provided to, and relevant for, the diverse groups that may have contact with affected persons. Thus it needs to address the following issues:

- How to recognise and deal with distress and to help people with specific issues such as prioritised assistance, finding out about loved ones, sources of support.
- How to recognise and deal with mental health needs, when they present, for instance, alongside welfare requests
- How to work supportively with people and if appropriate explain and refer, to mental health workers for assessment,
- Providing mental health information and resources that people can use alongside other resources,
- Self-care for recovery workers and looking after one’s own mental health and wellbeing, including sources of advice
These information initiatives should include positive expectancies, self care advice, but also indicate when to seek further assessment and assistance.

In general the tenor should be realistic, compassionate, validate people’s experience, courage, recognise suffering, reinforce hope, and support people’s important roles in their community’s recovery. Collaborations and partnerships will be critical to broader aspects of recovery, but it is also essential that those working in the range of recovery roles have access to mental health advice and support should these be required.

ii) Needs assessment. Ideally this should be at a population level, through an epidemiological approach assessing mental health need across the population in terms of exposures, risk factors, mental or physical health pre-incident / current, health behaviours, social indicators, resilience indicators, protective factors and so forth. This could be through telephone survey, but in the event of large-scale population displacements other methods may be needed such as direct contact with evacuation centres and surveying those dislocated. People may self-identify or present with distress to counselling, GPs and mental health providers or other outreach, pastoral or support agencies. Studies after Hurricane Katrina demonstrate some of these options, including the importance of using a Community Advisory Group to work with the community to identify need (Kessler et al 2008, Kessler & Wittchen, 2008).

In most major disasters it is not possible to carry out surveys in the early stages, but comprehensive gathering together of information from all sources is an important baseline, and may later be linked to more consistent population-based surveys, and health care utilisation related to the disaster.

iii) Outreach programs to provide linkage for those in need – these may be through

- **Door knock** and follow up to people’s homes, or evacuation or emergency accommodation centres
- **Call Centres** which people can call if distressed and be dealt with through the recovery and referred to other services or special assessment and counselling if needed
- **Non-Government Agencies** may be involved in outreach, for instance Australian Red Cross has conducted door-knock outreach to large numbers of people in affected
communities following major disasters in Australia. Faith based agencies are also likely to be actively involved. These should be prepared to address practical and information needs, to help people deal with problems, and facilitate family and other sources of social support.

iv) Public health strategies in the disaster and aftermath should also support focused mental health promotion and protection, prevention and early intervention programs for the population broadly, for organisations, businesses, schools, etc. These should also encompass the importance of the return of functional systems and the return of groups of stakeholders to these, e.g. schools, workplaces. It should also support active involvement of community members in the organisation and management of the community’s recovery program. Resilience enhancement should be a key goal through recognising and supporting strengths, facilitating connectedness, assisting resource advocacy and access, strengthening social capital and supporting institutions, and effective information and communication (Norris et al 2008). Positive hopeful expectations are central, but need to recognise the need for support in resource-poor, continuing adversity and prolonged aftermath recovery trajectories.

v) Psychosocial strategies in catastrophic disaster
In the event of a very large scale or catastrophic disaster such as the recent earthquakes and tsunami with mass deaths and destruction, general psychosocial support skills may need to be built across the population through local leaders, training community members and community development strategies. This is also likely to be important for workplaces and organisations. It can be a very effective strategy in terms of reach and capacity building, and can operate as peer support and at “grass roots” levels. Other needed clinical processes can be networked with this.

vi) Spontaneous actions of those affected social groups and communities, local leadership, mutual support, memorialisation, practical assistance, sharing of resources, strategies for recovery are frequent, reflecting the resilience of the majority, their affiliative behaviours and goodwill. These are particularly pronounced in the initial “honeymoon” of the early stages and weeks. Despite later difficulties these spontaneous strengths usually predominate, although at times communities may have to deal with conflict, diverse views and local ‘politics’.
B) Clinical Programs
   i) General & Physical Health and integrated psychosocial/mental health aspects

   All clinical programs need to take into account the disaster experience, its psychological effects, ongoing problems and its contribution to potential pathology.

   *Emergency health and hospital services* are likely to have been actively involved through the emergency and may continue to be so.

INJURIES: GENERAL, BURNS

- Disasters may result in minor or major injuries, burns and other physical consequences
- Brief assessment of mental health needs for those affected and their families may be necessary, both acutely and in the longer term.
- PTSD, Depression may occur subsequently and impact on the capacity for recovery/ particularly if scars, pain, damage to body integrity and function have occurred and constituted additional reminders and stressors. A useful model is that of Zatzick, (2007) who has tested progressive stepped care following mental health assessment. This is carried out alongside hospital services and rehabilitation.

DEATHS & LOSSES

- Those acutely bereaved are likely to need support through periods of uncertainty, confirmation of deaths, DVI processes and release of the remains, and for other stressors and difficulties in the early months.
- Bereavements in disaster are frequently traumatic and untimely, especially the deaths of children, so health and mental health support programs may be needed both early on and over the longer-term recovery process.
- These deaths may be associated with psychological trauma and complications in the grieving process, requiring management, including the development of pathologies such as traumatic grief, prolonged or complicated grief disorder (after 6 months duration), or major depression or other psychiatric syndromes.

POTENTIAL EXPOSURES

People may have been exposed, or *fear that they have been exposed* to potentially life threatening substances and processes, for instance chemical, biological, radiological / nuclear hazards. This may follow an accident or a terrorism attack.
• People may converge on Emergency Departments or other services fearing contamination, irradiation and so forth
• Assessment needs to take into account both the possible biological effects of such exposures and the effects of fear and arousal
• Differential diagnosis and management are complex
• Acute psychogenic or sociogenic illness may present and require careful assessment of those affected, testing if appropriate, and positive follow-up to prevent adverse consequences such as MUPS etc (Medically Unexplained Physical Symptoms)
• Trauma syndromes and depression may also occur related to stressor aspects of such incidents, but may present later
• People who have been affected by such exposures may need psychosocial and mental health management alongside physical treatments, especially if effects are very severe or potentially fatal (e.g. Ricin, radiation sickness)
• Families of affected persons may also need support and advice

Problems may present or be recognised in a range of clinical settings. There is strong evidence that people trust and consult with their family doctor or General Practitioner and may also have linkages with hospital and specialty services.

**General practitioners and primary care** - the consequences of a disaster may have a significant effect on physical health, leading to direct or indirect presentations to GPs:

a) Through direct effects, e.g. tissue injuries; blast effects of an explosion affecting hearing; infectious disease; new health problems; exacerbation or other effects on existing health problems. It is particularly important to recognise the possibility of these and ensure adequate health assessment and management.

b) Through effects of the stressor exposure; for instance there is demonstrated increased risk of death from cardiovascular disease in the year after an earthquake (Dobson, 1991)

c) Through changes in health behaviours as a result of circumstances or stress, for instance: smoking, poor nutrition, lack of exercise, sleep difficulties, increased drug and alcohol use; all of which have been demonstrated following some disasters.

d) Disruptions of management of established health conditions, acute or chronic eg medication availability, disrupted schedules.

e) Possible risk of suicide
f) **Somatic symptoms of mental health problems**, e.g. fatigue, headaches, where there is no other medical basis (e.g. weight loss and depression)

Thus it is important for health and mental health that such **physical health assessment** is carried out for those affected by disaster, terrorism and other hazards if they present for care. A useful resource developed for the Victorian Bushfire response identifies some key issues for GPs (Burns et al, ACATLGN, http://www.earlytraumagrief.anu.edu.au/uploads/020309_Disaster_Guidelines_General_Practitioners.pdf).

ii) General Mental Health Recovery Programs

The ways in which a mental health program is developed and implemented for disaster affected populations will depend on the agreed components, the governance of both the recovery program and mental health components of this, and the systems for delivery. The program may be implemented by public sector mental health services, in accordance with planned strategies and training. These may be supported with additional funding to deal with the consequence of the disaster, for example for 6-12 months, as with mental health workers funded separately through GPs with linked clinicians such as Clinical Psychologists and other allied health professionals. There may be private provider systems with stand-alone services, or as a group or alongside other services. There is also a diverse set of options through individual providers, “trauma” specialists and the like. Ideally mental health workers are educated and trained not only in the clinical aspects of response, but their role in the overall service provision system or program. It is important to **protect those affected as far as possible from the convergence of would-be “counsellors”, who may or may not have the necessary training or skills.**

The governance, mobilisation and management of mental health clinical workforce should be coordinated, and focused to priority needs, across identified program components, and with appropriate expertise. Documentation of assessment and management, and evaluation of program outcomes, is critical.

While many people will suffer significant distress through any severe disaster experience, it is clear from a wide range of studies that those most severely exposed may be vulnerable to shorter and longer-term distress, or may go on to develop mental health problems or disorders. It is also clear that the majority will not be so affected, and will in fact, be resilient. And some may “grow”

Several program components can form the basis of the mental health recovery program, which would be a specific component of recovery services, targeting mental health needs after the disaster. Components should be adapted to the specific disaster context with the aim of

- Access & assessment
- Follow-up, possibly monitoring
- Interventions should these be required
- Evaluation of their effectiveness

As will be noted below much of the focus of all hazard disaster response and recovery has, from a mental health point of view, focused on “trauma” as the theme. The needs of the bereaved, the dislocated and others have not generally been well recognised in distinct ways. The specific issues for those bereaved will be dealt with below, as will mental health problems that arise for those dislocated from their homes and communities. A specific subsequent chapter will deal in depth with those who have suffered bereavement in disasters and related aspects of mass death.

A further critical issue to be aware of is pre-existing mental health problems or disorders and to ensure that assessment and treatment deal with treatment disruption if this has occurred, as well as disaster related mental health consequences.

**Specific Mental Health Intervention Programs**

There is general agreement about a 3-level approach to dealing with post-disaster mental health morbidity, i.e. Levels I, II and III. Australian disaster mental health experts have broadly agreed to such a structure. Education and training programs also adopt these levels. Experts in the field recognise that phases of need and response are not necessarily clear-cut, and that service provision is not always able to be staged directly in this way. Nevertheless the broad principles and resources described represent a useful set of strategies which can be adapted to specific circumstances and available resources.

It is important that programs are applied in terms of assessed need, understanding of potential risk, and that processes for decision-making, consultation and referral to more expert assessment and management are available, if this is required.
Ultimately they must be viewed as tools for intervention with application attuned to the need and trajectories of mental health difficulties, resilience, and of recovery.

A. Level I Mental Health Program

This deals with broad mental health issues, and is usually provided by people with basic mental health knowledge and skills, or frontline mental health workers. It may be provided by others, such as other health professionals, NGOs or “counsellors”. All should ideally, be adequately trained for these roles, for instance in Psychological First Aid and general personal support strategies. Level 1 should not be formal counselling, but rather support. All instances require ready access to mental health supervision, advice and backup if this is needed.

Mental health outreach and follow-up: including basic clinical, community and other programs. These may be through telephone or other personal contact. This will depend on duration of contact – i.e. if a person makes face-to-face contact it may be easier to explore any mental health implications. If outreach is relatively "cold call" then there should be an introduction, the person calling stating who they are, the organisation they are from, and the purpose of the call. For example “seeing how you are going/ how this are going for you at this stage”.

Several issues can assist with the outreach and acceptance of such mental health approaches. These are as follows:

1. Contact and engagement – **Introduction:** stating name, organisation they are from, why contact is made, i.e. to see if assistance is needed, (practical information, support, other) and purpose; and if the persons wishes, and is “ready” for such discussions, exploring current problems and needs; disaster experiences and strengths. This assessment should be supportive, checking practical needs, the person’s emotional state, and how they are progressing. Throughout it is important to identify the person’s strengths and adaptations that will enhance recovery, and to reinforce the value of connecting with others and social support.

   a. **Not to harm** – Outreach / contact should be positive, sensitive to need, and not do harm. There should not be detailed probing. Outreach and follow-up should be sensitive to the person’s readiness and need. Many will recover well and may not need additional assistance.
b. It should be informed by the key principles
   • Promoting connectedness (mutual support) with and for others
   • Promoting calming as appropriate
   • Promoting sense of safety / security
   • Promoting sense of self efficacy
   • Promoting hope

c. Engagement with the person as an individual in his or her family, social and experiential contexts, acknowledging and validating their experience; clarifying purpose and developing shared aims that are relevant to the person’s readiness, and need; but with positive, supportive expectations and recognition of strengths.

d. Recognising the specific challenges of the post disaster context; chaos may continue; professional / patient / client role definitions are different as the person is someone affected by a disaster and may or may not have a clear diagnosis, especially in the early stages, but may still need assistance, recognition of psychosocial and possibly specific mental health needs.

e. If further exploration is required, it should ideally be carried out by a mental health clinician. This could address such needs sensitively and with capacity to contain and manage distress and link to or continue further mental health care. Some possible options are presented in Attachment A for this chapter.

People may need practical advice and assistance above all else, and this in itself may be psychologically supportive, or facilitate such support.

ii. Reinforcement of factors that may enhance resilience more broadly, such as
   • Mutual support and connectedness involving family, others in the community, social groups or organisations.
   • Capacity for action with respect to recovery, and potentially shared action with others affected
   • Practical resources to restore sense of efficacy and dignity
   • Reinforcement of strengths, past experience, adaptations and coping actions that have helpful
   • Practical actions that people can take themselves, which help to reduce “helplessness”
iii. **Practical Strategies** as a vehicle for emotional support. Capacity to act effectively for oneself and others can help to enhance confidence and self-efficacy. Emotional support integrated with practical actions, can also contribute, and may be more acceptable to many.

iv. **Information meetings and other community action groups**, both spontaneous and facilitated, may play a significant role. Identifying self-help strategies may also be of value.

v. **Function & Normalisation** It has been generally agreed that getting back to regular school activities is potentially helpful for affected students, and returning to work, to functioning, to the regularity and security of everyday life, is also very helpful to all levels. This applies not only to work, or other tasks, but also to home life.

vi. **Building/rebuilding community action processes** and assisting people to participate in these for recovery, renewal, advocacy, justice and so forth are also helpful in increasing personal and community efficacy. Rebuilding and renewal symbolise efficacy for individuals and communities.

**Documentation**

It is critical that there is **systematic documentation** of registration, disaster related impacts and consequences, including injuries (physical, psychological); losses, and other areas of importance, plus problems, and what has been done or advised. This is critical for those affected by disaster and should include health and mental health aspects, ideally in formats that link with the related basic service systems (e.g. mental health, community health but with disaster focus).

Documentation will depend on jurisdiction requirements, but should include as a minimum

a. Name, address, contact details
b. Socio demographic details
c. Family, next of kin
d. Work, financial situation / need, housing etc
e. Disaster experience, threat (“I thought I could die”), injury, loss of loved ones, others, home, role
f. Problems presenting
g. Strengths and positive adaptations, support available
h. Recommendations, actions taken and follow-up or referral as required
i. Detailed informed screening - basic data
ii. Indicators of potential risk and protective factors, possible pre-existing and new health and mental health issues
   i. Triage & rationale
   j. Diagnosis, identification of problems, disorders and priorities, decisions, management, follow-up, usually at more specialist levels of care.

Depending on clinical expertise and training, further information may be assessed and recorded at this stage.

An example is attached of triage forms and other documentation used by NSW Health. A record number should be used, and any subsequent care for the person, or problem presentation, identified. (see Appendix C for a Disaster Mental Health Intake Form that is ready for use and may be distributed).

Registration of “Disaster Affected Persons” is usually carried out formally so that a “register” may be linked to this process. Nevertheless it is legally essential that health records be kept of assessments, management and circumstances for
   • The client’s or patient’s needs
   • Medico-legal record
   • To facilitate evaluation of program effectiveness

This Level I of management may also be supported by
   • Case Management programs or liaison officers or the like, to assist people in dealing with the complex amalgam of bureaucracies and recovery agencies. They are particularly helpful in managing access to welfare and needed resources, including information and services. These are only relevant in some disasters but have proved useful following the Victoria bushfires. A similar concept has been Family Liaison Officers for families, for instance as recommended for those bereaved following the London bombing.
   • Supervision & referral processes
   It is useful for all workers, including mental health workers at this level to have arrangements for regular case review/supervision by a mental health professional with expertise in this field, for discussion of problems that may arise, with some of the people they are assisting. It is appropriate that interventions at this level should be
   • Generally supportive
• Short term e.g. 3 – 4 sessions dealing generally with broad practical and support, and health needs
• Include clear guidelines for referral for further opinion and/or treatment, and pathways to achieve and access such expert referrals when required.

B. Level II Mental health Assessment and Management
This level of mental health care is provided by mental health professionals. It deals with general mental health skills and may merge with or flow on from the strategies listed above. Those providing programs at this level may not have in-depth knowledge and skills to manage complex effects of the disaster, such as PTSD, Depression, Prolonged Grief, comorbid mental and physical health problems.

This Level II Mental health Assessment and management requires:

i. Specific assessment, ideally by or with review / confirmation by a mental health clinician such as a psychiatrist or clinical psychologist.
ii. Identification of strengths such as return to functioning; positive, hopeful attitudes; access to support and resources; feelings of wellbeing.
iii. Focus on recovery, particularly using resources such as Skills for Psychological Recovery
iv. This should be tuned to general mental health needs, with management and monitoring plus referral if problems continue or increase
v. There may be general counselling to deal with distress, relationship difficulties, problem solving, grief, needs of children and families, frustrations and anxieties in the aftermath
vi. There should also be a focus on and support for looking after physical health and wellbeing more broadly, dealing with the disaster consequence, mobilising social support, connectedness and engagement in the community recovery processes
vii. Severe trauma syndromes, prolonged or complicated grief and specific disaster-related disorders will probably need to be referred for specialised assessment and treatment, if they do not settle rapidly.

Supervision and review may help to build the competencies and effectiveness of those working at this level.

Skills for Psychological Recovery
This is a major focus of post disaster mental health at Level II in current models (e.g. Australian Centre for Post Traumatic Mental health (http://www.acpmh.unimelb.edu.au/). These have been
adapted for Australian use following the 2009 Victorian Bushfires from the work of the National Centre for PTSD and the National Child Traumatic Stress Network in the USA.

The core actions and strategies of this model are:

1) Gathering information and prioritising assistance
2) Building Problem Solving Skills
3) Promoting Positive Activities
4) Managing reactions – assisting the understanding and development of personal skills for this.
5) Promotion of Helpful Thinking
6) Rebuilding Health

These principles inform support processes for the disaster aftermath. Nevertheless engagement should be responsive to need, attuned to the person’s and family contexts, facilitating recovery and adaptive strategies, bring positive expectancies and hope while addressing distress, suffering, or problems Common sense and kindness are a good baseline.

C. Level III Specialised Disaster Mental health Assessment and Treatment Services

These levels are not clearly defined and represent, in general, levels of specialised clinical programs to assist those most severely affected. However highly specialised programs may not be readily available, as they are usually a limited resource. The capacity for the provision of services for those affected may be expanded if such expertise contributes through education and supervision to assist others to provide such care – e.g. general mental health workers. Access to online resources, including counselling programs, may assist.

More specialised assessment and interventions may be required. These may be provided early post disaster, e.g. for Acute Stress Disorder or later if this is when the person presents, or if there are other specific diagnoses.

The person referred in such circumstances is likely to require:

I. Thorough clinical mental health assessment including diagnosis and formulation, taking into account the nature of disaster related experiences and their contribution to these problems
II. A detailed clinical management plan, including specialised psychological and/or pharmacological treatments if these are required
III. Rehabilitation/Renewal of functional aspects which have been affected or if the person has significant ongoing disabilities

IV. General health and comorbidity management, family and other issues

Mental Health Clinical Issues include the following:

**Mental Health Assessment**
This should address:

- **Presenting Problems:**
  - Those directly related to the disaster experience
  - Other problems identified

- **Experience in the disaster: stressor exposures such as:**
  - Life threat
  - Loss
    - bereaved, death of loved one or significant other
    - Other losses, e.g. properties, work etc
  - Consequences, disruption, dislocation, relocation

- **Strengths, coping strategies, resilience indicators**

- **Reactive processes including risk and protective factors / symptoms**

- **Mental and physical functioning, including mental state examination**

- **Previous history, e.g. trauma, mental health problems, etc.**

- **General health**

Such assessment can be brief or detailed, depending on the context, and should identify levels of need, risk and impact as the focus for specific treatment strategies, both short term and ongoing. Assessing and helping the person to use their strengths is also important. If even more specialised care is considered, clinical consultation and review could form a basis for this. Key issues include:

**Mental Health Diagnosis, Formulation, Management**

- **Diagnosis, formulation and management** planning should involve a psychiatrist with necessary expertise

- **Disaster exposures and their potential contribution** to these problems should be included in management planning for affected persons

- **Specific evidence-based and informed treatment guidelines** have been developed and can be used, for instance with Acute Stress Disorders, PTSD, Major Depression (ACPMH, RANZCP). It must be noted however that they have not been tested in the disaster context,
nor have there been Randomised Controlled Trials of their utility and effectiveness for disaster-exposed populations. They should thus be adapted for the post disaster context, with fidelity to key components of demonstrated benefit, but with flexibility and as appropriate for the particular person and his or her experience, context and readiness, and illness profile.

- Treatment may involve appropriate pharmacotherapy when clinically indicated.
- Guidelines for specialised trauma-focused (TF) CBT for use with Acute Stress Disorder & PTSD have been developed (Australian Guidelines for the Treatment of Adults with Acute Stress Disorder and Posttraumatic Stress Disorder (www.acpmh.unimelb.edu.au). These must be applied as relevant for the individual, with clinical sensitivity, empathy, compassion and common sense; taking into account other possible diagnosis and complex issues.
- Management of bereavement-related problems including Prolonged Grief Disorder should also be sensitive to the individual's experience of grief and trauma, i.e. Traumatic Grief, in such circumstance.
- Diagnosis and treatment should be discussed and management strategies agreed with the affected person. People should be provided with the range of options including web based or other programs.

Disaster Stressors and Circumstances are Complex

Assessment and management needs to occur with recognitions that:

- Pre-existing mental health problems may need to be taken into account.
- Earlier experiences of trauma and loss may emerge and influence clinical presentation and need, or emerge during therapy.
- Multiple exposures to diverse stresses may create an extra burden or ‘tipping point’
- Addressing other factors can enhance the sense of efficacy and potentially contribute to recovery, such as:
  - Social support networks and connectedness
  - Positive practical goals
  - Information that can help people to recognise and use their strengths
  - Supporting return to normal functioning, e.g. work, school, can help recovery
  - Recognising specific problems and evaluating risks; behavioural changes, depression; loss of role and meaning and so forth. Effects on health more broadly should also be addressed.
Suicide Risk; Risky Behaviours
Clinical processes should address:

- **Careful monitoring for people** expressing despair or hopeless feelings, or if there is a heightened risk for suicidality in the particular disaster affected populations

- **Health Risk behaviours** As noted earlier health risk behaviours may increase, and monitoring for drug and alcohol use, and impairments of other health behaviours such as exercise, sleep, nutrition, are also important issues

- **Cardiovascular risk** There is evidence of increased risk of death from cardiovascular events after some disasters (e.g. earthquakes) so it is useful to check these and advise if appropriate

- **Risky Behaviours** Risk-taking may become a more pronounced part of adaptation, leading to accidents, especially in young people.

- **Risk and Relationships**: Relationships may be impacted by the disaster and its consequences and risk to partner, parent, child or others may need to be taken into account

Pre-existing Illnesses: Mental and Physical
In view of the frequency of mental health problems and disorders in the population generally it is critical to ensure pre-existing problems and illnesses, both mental and physical, are taken into account. This may require review, management of disruptions, for instance medication gaps and taking the opportunity to reassess and use this as a positive opportunity for the future management, as well as management of mental health problems resulting from the disaster. Research is generally lacking in this area as noted in some reviews (e.g. Person & Fuller, 2007).

Aims are to:

1. Reassess and Review
2. Use the opportunity for reviewed assessment and positive directions forward
3. Facilitate management of disaster related health and mental health problems as integrated with broader health care system management.
4. Update review and management of pre-existing problems

D. Recent Resources for Disaster Mental Health Treatment Strategies
Dealing with post disaster psychiatric morbidity has usually focused on strategies for Post Traumatic Stress Disorder, particularly Trauma-Focused CBT (Cognitive Behavioural Therapy). The Australian
Centre for Post Traumatic Mental health has developed a series of NHMRC Guidelines for the management of Acute Stress Disorder and PTSD. These focus on CBT and details are available online or through the centre (www.acpmh.unimelb.edu.au). These recommend a number of reasons for trauma-focused CBT.

In addition, in response to the 2009 Victorian bushfires, further focused resources have been developed in consultation with experts, to build specific resources for such disaster settings. These resources are based on or informed by scientific research, but have not been subjected to Randomised Controlled Trials in terms of their use to train mental health service providers for intervening with those affected. Evaluation will contribute to knowledge re: their real world benefits, however as at present they constitute the best available clinical resources to inform intervention strategies. They should be utilised here as elsewhere, in line with skilled clinical assessment, sensitivity to patient needs or problems, and with careful monitoring, and review. Ideally skilled high-level supervision should be available to assist these processes, and to inform their evaluation.

Therapist Resources for Level III training provides resources. This can be found on the ACPMH website: Therapist Resource for Psychological Treatment of Common Mental Disorders after Trauma and Disaster – First Edition (Forbes et al, ACPMH, 2009). This deals with the following themes, providing overview, management and intervention; handouts for each. These are:

1. Psycho-education Module
2. Arousal (Anxiety and Anger) Management and Distress Tolerance Module
3. Behavioural Activation Module
4. Exposure Module
5. Cognitive Therapy Module with a trauma and disaster focus
6. Complicated Grief Module
7. Relapse Prevention Module

These are used for both adults and adolescents and aim to alleviate distress and provide positive outcomes. They are based on competent clinical assessment and in line with principles outlined as potential psychological strategies for specific disorders and distress. A similar manual has been developed for children. This is ‘Therapist Resource for the Psychological Treatment of Common Mental health Problems in Children and Adolescents after Trauma and Disaster’ (ACPMH, 2009).
E. Other Specific Mental Health Needs
There are several populations that require a specialised approach that can take into account the
different impacts a disaster may have for them. These are each dealt with in specific sections of this
handbook. They include for example:

i. CHILDREN, ADOLESCENTS (in family and school contexts). Children and adolescents may be
differentially affected because of:
   - Different exposures or perceptions of and reaction to disaster stressors
   - Separation from parents / families
   - Limited of knowledge about appropriate and effective interventions across the
     spectrum of need, and as relevant for the complexity of post disaster experience
     and settings. Although there are now numerous developments in those
     programs for children, specific programs for parents, carers, schools, and limited
     service availability are also issues.
   - Development levels and possible impact on cognitive and other development
     trajectories
   - Protection of children is also a priority in disaster contexts

Mental health and paediatric expertise is necessary for assessment and management.

ii. PEOPLE / GROUPS WITH HIGH LEVELS OF PRE-EXISTING TRAUMA AND RELATED EXPERIENCE.
People who have suffered prior severe trauma, such as through abuse, torture, or in conflict
affected countries, who have experienced significant violence, may be more severely affected.
They may have a range of defensive strategies and symptoms or syndromes. They are likely to
need highly skilled assessment and care, should they seek help or believe that they need it.
Collective trauma may also be present for some populations.

   Mental health assessment and management should be skilled and experienced in
dealing with such complexities, involving clinicians with expertise in this area, and care
and caution may be required.

iii. PEOPLE OF CULTURALLY & LINGUISTICALLY DIVERSE BACKGROUNDS. Cultural requirements,
language, different interpretations of disaster experience and response, prior trauma history,
and loss may all be additional sources of vulnerability, or even at times, strength. Assessment
and management should be carried out in culturally informed ways as needed, with skilled
mental health trained interpreting services, or bilingual or culturally appropriate mental health
professionals. It should be attuned to cultural differences in the conceptualisation of, for
example trauma syndromes, grief experiences and family issues; as well as spiritual and religious beliefs. Access to culturally appropriate and language specific resources is important.

iv. **OLDER POPULATIONS** may have specific needs related to frailty, illness, isolation or disability. They may have cognitive or physical impairments. All these issues need to be taken into account in their assessment and management, and possibly protection strategies. Assessment of and intervention for possible disaster related morbidity should engage psychogeriatricians to assist in clarifying need and management.

v. **INDIGENOUS POPULATIONS** may have particular needs and be adversely affected through disadvantage, prior excess trauma and loss experiences, dislocation and other stressors. Culturally appropriate indigenous services need to be educated and trained to assist response, and to inform other experts, taking into account potential for significant vulnerability.

vi. **PRE-EXISTING ILLNESSES OR DISABILITIES.** People with pre-existing mental or physical illnesses and disabilities need to be reassessed for ongoing needs, particularly if treatment was disrupted by the disaster, and for disaster-specific syndromes, or new disorders.

Other populations may also be identified in specific disasters.

**F. Workforce: Emergency, Health and Other Workers**

People or populations may be affected by the disaster through its impact on their workplace, on their capacity to work, or through their roles of managing those affected in the emergency or subsequently. Family issues also play a significant role.

i) **Assessment and management** need to take into account role requirements both before and in the disaster, associated stressor exposures, protective and resilience variables, and ongoing workforce and workplace influences.

ii) **Clinical management should encompass personal, human needs and workforce, workplace and organisational aspects.** The skills and expertise of employee assistance programs need to be attuned to these issues. Clinicians and others so affiliated need to be aware of the workforce and workplace influences, and the specific issues of these in the disaster contexts. Mental health complications should be recognised and access to assessment, treatment and effective rehabilitation supported.

iii) **Business continuity planning in organisations** needs to take into account potential psychosocial and mental health aspects, and develop psychosocial preparedness strategies to assist.
iv) Emergency, health and other responders may be directly affected themselves, or their families, and may need specific support in the emergency response, transition, or more specifically during the recovery, in the aftermath. They may also need access to mental health assessment and management through programs that they perceive as helpful to their situation. Many fear that if they report difficulties to EAP providers for instance, or to their systems, that they may be viewed as “not up to” their job, and that it may impact on their career. These matters need to be dealt with positively in the workplace planning and response / recovery strategies.
**Narrative and Meaning**

Most people who have experienced a disaster will have a “story”, their story of their experience in the disaster. This will affect their perceptions, actions, testimony, feelings.

- **In the emergency and acute period** this is with arousal, fear, relief, triumph with survival, at times guilt, shock. There is the intense coming together and sharing of stories, experiences with the dropping of usual social boundaries, even euphoria.
  - **Story themes**
    - Shared survival / safety
    - Safety of loved ones e.g. missing family members, asking for and seeking those they fear may be “lost”

- **Progressive recognition of what has happened, the extent, loss and damage**, destruction of property, community, sense of personal or national vulnerability, evolves as a component of experience and narrative over ensuing days and even weeks.
  - **Story themes may include but are not limited to:**
    - Reality of situation, circumstance
    - Grief over what has been lost
    - Dreaded realities
    - What helped, what did not
    - Searching for meaning
    - How did it happen?
    - Anger, guilt etc
    - Yearning, fear
    - Why did it happen
    - What was the cause
    - Why, e.g. “god’s will”, failure of systems, persons
    - Self and / or others blamed
    - Tackling recovery
    - Challenges over more prolonged recovery period, e.g. mass destruction, ongoing threat
    - New reality

- **Recognition of life change, future demands** becomes increasingly relevant
  - Meaning over time will be influenced by progressive interpretation and coming to terms with each person’s, family’s and communities’ own stories or legends, and associated actions.
- **Making meaning of loss** / grief, memorialisation and review of the life lived, lost person, changed identity and so forth.
- **Retrospective adaptations** to the nature of the experience in the context of ongoing life
- **Thoughts and plans for the future**, intermittently, initially

These are general themes. **People may need to tell their stories at different times, in different ways, when they are ready, and with different groups.** This may become part of one’s “therapy”; part of one’s identify, part of managing one’s future. **Some people’s stories will not be shared.**

**Story and Therapy**

- Allow people to tell their story when they are ready, or potentially as needed, and if they wish to tell, gently facilitate.
- Repetitive storytelling, like repetitive play in children, may represent ongoing trauma, reliving and locked into the threat, the experience.
- Writing down experiences has been shown to be helpful and it may assist people if they make a personal record for themselves or others
- Treatments should not force a story, as with earlier debriefing techniques; and if too early or too negatively focused, this may contribute to a negative outcome trajectory and “victim” identity.
- Sharing stories with others who “have been through the same thing” is often experienced as helpful but there is no specific evidence of this as an intervention
- Shared meaning through the media and popular interpretation may differ from individual experience. The latter is what is important to the person, but major differences between public and private may be an issue.
- Many people have stories of growth – re-evaluating the importance of family, relationships, and of everyday courage and life. It may be helpful to validate these strengths and positives, as well as acknowledging the experience and suffering that was inherent in the experience and may still continue, or at times, recur.

**Societal Reactions:** The recognition by the community or nation of what has happened and people’s strengths and courage as well as suffering, may also facilitate people’s recovery. Anniversaries, memorials can contribute to this, as well as acknowledgement of achievements.
Community Narratives, Testimony, Legend

Community interpretation, shared narratives of the disaster, may be important for collective meaning, celebration of achievements; acknowledgement of losses, changed community circumstances; and the pathways and challenges of the future. These narratives should be respected, but recognised also as part of the search for meaning.

- Narratives will occur spontaneously
- Understanding these, their purpose and “legendary” nature is important
- Groups and individuals may not identify, or may feel these do not reflect their realities, their suffering or strength
- Media may shape the shared narratives
- Inquiries may develop narratives of blame, and achievement. They may also provide opportunity for testimony.
- Memorialisation is important
- Shared narratives of survival and strength may help to shape future actions
- Some shared narratives will ultimately become “the” story, the legend, the community’s disaster, and may be part of community identity

Implementation of Mental Health Recovery Strategies

How the programs described are implemented will depend on having a Mental Health Preparation Plan, which is then translated with a Mental health Recovery Plan, specific to the needs of the particular disaster. Subsequent chapters will highlight some of the issues relevant to different disasters, for instance terrorism and its different focus and potential effects and management.

The World Health Organisation (WHO AIMS-E) has documented some potential guidelines for these plans (for preparedness) and these principles have informed Australian plans (see Appendix A for Australian adaptation).

All plans need to be shaped to the requirements and structures of the system or jurisdiction in which they will be utilised, and fulfil key principles as outlined in this resource and identified by international bodies such as the World Health Organisation. They must also be relevant to the resources available and their optimal use to provide the best possible outcomes for the particular circumstances.
A Mental Health Plan will require a system that can manage the acute surge of need and provide a level of sustainability, and has a clear governance process, flexibility and responsiveness to changed circumstances in the post-disaster environment over time. It needs to be carried out in collaboration with other relevant recovery agencies, and particularly with affected populations and their leaders. It needs to be informed by available evidence, by specific disaster circumstances, and reality based in terms of available resources and their most effective use. It needs to be attuned to resilience, adversity and opportunities for the future.

Systems
Most jurisdictions in Australia implement mental health recovery strategies as part of their public sector mental health system of care, with additional training and linkage to private sector professionals such as psychiatrists, clinical psychologists and others. The Australian Government also funds a linked system related to referrals through general practice, for clinical interventions, funded through medical benefits or special initiatives. As well there may be special funding as for instance with the Victorian Bushfires of February 2009. Additional resources may be provided for welfare, health care, rebuilding for the recovery program, and many other needs. Additional mental health funding may be provided in response to specific identified needs.

A coordinating and governance process for the recovery program needs to be put in place to optimally manage and coordinate collaborative systems and resources, so as to ensure access and pathways to assistance, assessment and care. This will involve both documented agreed strategies, and their monitoring and evaluation over time, and other pathways or care provision as is usual in a free society. Plans ideally set in place processes to provide guidance to protect people from the convergence of “counsellors” or other “experts” who may be neither skilled, nor knowledgeable.

Ideally accountability is guaranteed through documentation and review processes and subsequent evaluation strategies. Evaluation is an important way of building the evidence base and the translation of the effectiveness of current evidence into practice in such circumstances (see also Norris et al 2009, a, b, c).

Such monitoring and evaluation should encompass at the least, information on needs assessed, and reference to background or baseline data gathered before the disaster, if such is available. As a minimum there should be reporting at one year and two years post the incident, although there has to date, rarely been such systematic evaluation. This is currently being tested by multiple levels of
documentation, plus epidemiological studies, post hurricane Katrina in the USA (Norris et al 2009, a, b, c).

The recovery strategy should also encompass the needs of specific populations who may for one reason or another merit more focused or different approaches to assessment and management. These issues will be dealt with in detail in subsequent chapters.

*Attachment A: Options for Further Clinical Outreach*

Moving into more specific mental health issues should be a staged process focused to possible problems and needs, so as to be useful to the person contacted, but also acknowledging that they may or may not be ready to discuss the disaster at this stage, or may be using other systems. In such circumstances, thank them, leaving contact details of the organisation if needed.

Particular needs such as those of people who have been dislocated from their homes, injured or who have experienced other loss and trauma may need specific attention.

Such outreach and follow-up may involve general contact, checking on how the person / family is managing, any needs; or could include screening questions such as those identifying risk, strengths and coping, and potential need – these queries could include questions such as

- “How was / is it for you in the emergency (e.g. life threat)? Were you afraid for your life at any stage? Have you lost anyone close?”
- **Some possible questions** include: “What’s happening at present, and can you let me know the issues, challenges you are having to deal with now?” How are you feeling? Are there any concerns you have now? How is your health generally? Have you any problems for instance sleep, appetite, smoking, drinking, exercise etc? How are you finding your work? How are things with the family, relationships, children and so forth?
- **How do you feel you are coping, managing at present?** What’s working well for you? Have you been able to get the support you need? Etc.
- **Specific mental health measures** including general mental health, e.g. Kessler 6 or 10 item scale, or 4 item Primary Care PTSD scale, are available, and may or may not be appropriate for the specific circumstance.
- **This would be seen as part of first level, basic; the potentially primary care assessment with potential management and interventions through GP or ATAPS referrals, possibly increasing to Level II.** It could include strategies such as
Psychological First Aid if distressed, with follow-on Personal Support
Skills for Psychological Recovery as a support and skill development model
Broader Psychoeducation. It should be noted that while this is generally perceived as helpful there is not currently evidence that its effective as an intervention in reducing symptoms (Wessely et al, 2008)
Possible referral to more specialised and skilled mental health professionals through General Practitioners, or to specialised, possibly Level III trauma services, psychiatrists and trained clinical psychologists. All providing service of level III should have specific skills to manage significant psychopathology.

Clinical screening, assessment by a clinician, of mental health, including risk, vulnerabilities, possible disorder, strengths, additional risks e.g. suicide etc. An example of screening using clinical tools is exemplified in Brewin et al’s (2008) discussion of the management of people affected by the 2007 London bombing, where screening proved a useful way of looking after those with highest risk and greatest need.

As noted a central issue is engaging the person/s and ensuring possibility of follow-up or that they are given information if they do not take on any program for assistance at this stage. This will apply to many people, as practical priorities may override any need for “counselling” or more formal support for themselves, as they see it, especially at the early stage. People often also feel that they should be “grateful” that “others need help more than I do”.

Follow-up longer term can be implemented if people make contact themselves with an ongoing resource or site that identifies this option, through information provision publicly, for instance newsletters, or ongoing contact with affected communities. Newsletters, information evenings, initiatives bringing people together to see how they are “travelling”, to discuss common themes at various stages of the recovery, can leave open the door for contact, assessment and treatment at a later time, should this be required. Setting in play such an opportunity is important as many people may not recognise or be prepared to deal with their disaster-related problems until life has settled down into some sort of regularity and other priority issues have been dealt with. Regular information is an invaluable part of this, particularly if it provides updates on both the positive achievements and progress, and challenges (problems) that may arise in the long aftermath; and how people can deal with them. Particularly important is government support for this delayed recognition so that people understand that the opportunities for assistance for mental health issues are still there, or at least over the first 1-2 years. Recognising achievement and gains as well as the
possibility of ongoing distress, and acknowledging the courage and determination people have shown in the aftermath, are important supports for their recovery.

**Attachment B: Resources**

Resources have been developed for managing some of the mental health consequences of the Victorian Bushfires. They are available on the Australian Centre for Post Traumatic Mental health Website ([acpmh-info@unimelb.edu.au](mailto:acpmh-info@unimelb.edu.au)). The nature of these specific resources is outlined below. Other valuable resources include those on the Australian Psychological Society website, the Australian Red Cross and others as indicated (below). It should be noted that these should only be used and applied as appropriate to the clinical situation of those affected by disasters, and in terms of appropriate assessment. Furthermore they should be considered and only used as clinically appropriate in terms of timing, need, complexity and severity of the person’s experience, the type of disaster and the possibilities of ongoing threat, or other acute needs.

They are as follows and full references are attached:

- Community Recovery & Psychological First Aid (Level 1)
- SPR Manual Australian version 2009 (Level 2)
  - Introduction and Overview
  - Skills for Psychological Recovery
  - Information Gathering and Prioritising Assistance
  - Problem – Solving Skills
  - Positive Activities
  - Managing Reactions
  - Helpful Thinking
  - Identifying and Maintaining Healthy Connections
  - Review and Relapse Prevention
- Therapist Resource for the Psychological Treatment of Common Mental Health Problems after Trauma and Disaster (Level 3)

**Key Strategies:**
• Therapist Resource for the Psychological Treatment of Common Mental Health Problems in Children and Adolescents after Trauma and Disaster (Level 3)

Key Strategies:
- Introduction to Resource and Introductory Sessions
- Parents and parenting Module
- Psychoeducation Module
- Cognitive Therapy Module
- Arousal (Anxiety and Anger) Management and Distress Tolerance Module
- Exposure Module
- Reclaiming Your Life – Behavioural Activation Module
- Applications of Exposure to Complicated Grief
- Relapse Prevention Module
References


Chapter 6 – Disaster Mental Health

The extent and nature of the mental health impacts and consequences of disaster have been extensively studied, particularly in recent decades. This chapter aims to provide a focused overview of the key issues relevant to those planning for or addressing potential adverse mental health consequences. Its primary reference points are encompassed by a number of recent scientific reports and volumes dealing with material and experience drawn together by researchers, for instance in the Textbook of Disaster Psychiatry, (Ursano et al 2007), Mental Health and Disasters, (Neria et al 2009); as well as a number of other key research references and resources such as those developed by the World Health Organisation.

This is not a comprehensive literature review, but reports on some of the key findings of relevant studies, and their significance for the real world experiences of diverse communities; and the effects of diverse, and at times, multiple incidents.

**Mental Health Implications**

**Aims**
To describe the mental health impacts of disasters, including the All Hazard possibilities; their nature and relevance across the life span; potential for mitigation; and trajectories over time.

**Disaster Ecology**
This concept recognises that disasters impact on human and other environments, affecting individuals, families and communities with powerful and damaging forces. These effects occur over time with threat, and warning in some instances, leading to heightened arousal and other reactions in response to the emergency impacts, and to longer-term consequences. There may be not only acute personal and social effects, but also longer-term effects of disaster forces and the damage and disruptions they can cause. These effects include exposures to various harms; death and damage, loss, dislocation and disruption of life. Economic and social consequences may be significant. As suggested by Shultz et al (2007), health effects, including mental health, are “determined not only at the individual level, but just as powerfully by a broad, multi-layered spectrum of factors comprising social and environmental context” (p.69). These authors go on to highlight the “interrelationships and interdependence of the social, psychological, anthropological, cultural, geographic, economic, and human context surrounding disasters” (p.69). The nature of disasters is that the “forces of harm” encompass both the primary disaster stressors, and the consequential or secondary stressors. The extent of exposure to these, the risk and protective factors that may influence their effects, operate at individual / family, community and societal / structural levels. All these influences occur
both over time, and in changing contexts. These concepts are important because they make clear
the population level nature of disaster effects, the complex interacting influences and the changing
environments over time, which may influence trajectories of outcome, be they resilient or
pathogenic.

**Disaster Stressors and Hazards**
As noted earlier, disasters may take many forms. The mental health effects may be related to the
broad nature of the disaster (e.g. Terrorism vs. local flood, mass casualty vs. small business
technological incident).

A summary adapted from Ursano et al (2007, p.6) (Figure 6.1 below) highlights the more severe
effects of human made disasters, and in particular the malevolent intent of terrorism as hazard:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Natural Disaster</th>
<th>Techn. Disaster</th>
<th>Terrorism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life threat, threat to sense of safety</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Mass death</td>
<td>***</td>
<td>*</td>
<td>***</td>
</tr>
<tr>
<td>Loss: people, resources</td>
<td>***</td>
<td>*</td>
<td>***</td>
</tr>
<tr>
<td>Malevolent intent</td>
<td></td>
<td></td>
<td>***</td>
</tr>
<tr>
<td>Unpredictable (timing and target)</td>
<td>**</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Consequences spread over time</td>
<td>**</td>
<td>**</td>
<td>***</td>
</tr>
<tr>
<td>Social disruption</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

Natural disaster = cyclones, floods, bushfires etc
Technological disaster = toxic spills, rail crashes, etc
Terrorism = bombings (e.g. Bali, 9/11, London) etc

Table adapted from Ch.1 p.6, “Mental Health and Disasters”, Ursano et al, 2007 (see also Chapter 1).

The specific circumstance of the disaster may be perceived and experienced in many different ways,
and will be influenced by social, cultural and other factors. People may be familiar with certain
disasters such as seasonal floods or cyclones that are “known”. They may thus expect they will be
safe, but may be shocked if these are more intense, serious, even overwhelming. When disasters
are “unknown”, not familiar, unexpected, or there is little warning they are more likely to have
effects of “shock”, threat, and potential chaos. The Queensland floods, flash flooding and cyclone,
the Christchurch Earthquake destroying large parts of the city, and the Japan Earthquake, Tsunami
and nuclear incident are recent examples of the massive social disruption, death and loss, trauma,
grief and ongoing consequences in the aftermath. They all demonstrate the human, societal,
economic and other ecological impacts that can occur.

Technological disasters may be similarly massive and overwhelming, usually resulting from system
failure or accident as with transport disasters, explosions, building collapse and so forth. Blame,
anger and the search for “justice” are often prominent in the social ecology in the aftermath, and potentially for many years.

Terrorism, with its uncertain threat, timing and target, malevolent intent and ongoing or new hazard, and may be associated with social, health and mental health effects that are extensive. The experience is further amplified and relived through the repeated media display.

<table>
<thead>
<tr>
<th>Stressors to which people may be exposed in the disaster</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are many ways in which these are categorised but the most relevant in this context, are in terms of actual exposures, perceived experiences and their relevance to mental health. They include:</td>
</tr>
<tr>
<td>i. Life Threat/death encounter</td>
</tr>
<tr>
<td>ii. Severe injury</td>
</tr>
<tr>
<td>iii. Loss of loved ones by death</td>
</tr>
<tr>
<td>iv. Resource loss more broadly</td>
</tr>
<tr>
<td>v. Dislocation from home and community.</td>
</tr>
<tr>
<td>vi. Multiple other stressful and challenging experiences.</td>
</tr>
<tr>
<td>vii. Malevolent intent and possible future terrorist attacks or effects.</td>
</tr>
<tr>
<td>viii. Disaster Stressors, superimposed on traumatised populations; Complex Emergencies.</td>
</tr>
</tbody>
</table>

i. **Life Threat /death encounter.** This stressor is the experience of exposure to the disaster such that one feared or thought one could die: “I thought I was going to die” and was associated with fear, and helplessness. This stressor is considered as potentially “traumatic”, and associated with increased risk of developing psychopathology such as Acute Stress Disorder or Post Traumatic Stress Disorder. Other phenomena may indicate heightened risk, such as heart ‘racing’ (increased heart rate) at the time. Exposure to the possible deaths of loved ones, witnessing such death, or multiple deaths of others is also associated with heightened risk. Even in the face of such experiences the majority of people react at the time with courage, a drive for survival for themselves and loved ones, and altruism in saving and protecting others.

Reactive processes of arousal, re-experiencing, avoidance may follow this stressor reflecting the ways “normal” people react to “abnormal” experiences.

ii. **Severe injury** may be associated with similar and potentially psychologically traumatic experience, particularly if the injury was life threatening. Both these experiences i.e. injury and psychological trauma, may have other longer-term consequences as well as the “imprint” of the life threat and damage or injury, for instance losses of functioning, pain, disability, loss of the sense of personal invulnerability.
iii. **Loss of loved ones by death**, perhaps with separation initially, if the death is not yet confirmed, particularly the deaths of children, close family members are associated with grief and related phenomena. Such losses are frequently associated with acute distress, searching behaviours, and ultimately intense grief. Such losses are usually untimely, unexpected and may occur in violent and horrific circumstances – for instance in 9/11, the Southeast Asian tsunami, Bali bombings, Sichuan earthquake, Victorian bushfires (2009), Queensland floods (2011) and Christchurch earthquake (2011). They are highly likely to be associated with traumatic experience around the circumstance of the death, and intense grief. They may result in “**Traumatic Grief**” (Raphael et al, 2001), an amalgam of trauma and grief phenomena, which are often a consequence of violent, unexpected and untimely deaths.

Other patterns of bereavement pathology may arise, for instance **Complicated or Prolonged Grief Disorder** (Prigerson et al, 2009) reflecting the particular attachment relationship lost. Depression syndromes may also arise or be exacerbated. Grief reactions may also occur in other ways related to what those affected may see as a very significant loss – for instance a dear friend, beloved pet, home, community. Norris (2009) has provided a valuable overview of loss and disaster.

iv. **Resource loss more broadly** is also considered important particularly in the model of “**Conservation of Resources**” as relevant to disasters (Hobfoll 1989). These include critical physical resources such as housing, shelter, clean water, food etc and psychological and social resources such as sense of control, mastery or efficacy and social connectedness. Social support deterioration is also seen as contributing to the potential negative consequences of these broad social resource losses (Kaniasky & Norris, 1993) quoted by Watson (2007). These broad losses are seen as significantly increasing the vulnerability to more adverse mental health outcomes post disaster.

v. **Dislocation from home and community** as a consequence of their destruction or loss, or for other reasons, is a major stressor for individuals and families, particularly if prolonged. This may also involve transient and temporary accommodation, repeated moves, crowding, loss of workplace, school, community and social support networks of neighbourhood. Such stressors may involve not only the loss of familiar environments, but put pressure on domestic relationships, and be associated with prolonged uncertainty. These disruptions may have significant ongoing effects on mental health and wellbeing over time.

vi. **Multiple other stressful and challenging experiences**, such as dealing with ongoing reminders and consequences of the disaster; uncertainty regarding future threat; dealing with
bureaucracy for resources such as rebuilding, welfare; additional concurrent and subsequent experiences, which may trigger “tipping points” to poorer adaptation, anxiety, depression or other health effects.

vii. Malevolent intent and possible future terrorism attacks or effects. The uncertainty and the possibility of future attacks, may add a further level of distress and heightened risk of health impacts or other consequences.

Concern regarding invisible potential exposures is a possible additional factor with CBRN (Chemical, Biological, Radiological / Nuclear) threat, for instance fears of health damage, health preoccupation about possibility of cancer, genetic consequences for the next generation. These may be associated with somatisation syndromes. This is dealt with in the handbook “CBRN Safe: Psychosocial Guidance for Emergency Workers during Chemical, Biological, Radiological & Nuclear Incidents” (Stevens et al, 2008) and “CBRN SAFE: Chemical, Biological, Radiological & Nuclear Terrorism: A Review of the Scientific Literature” (Raphael, 2008).

viii. Disaster Stressors, superimposed on traumatised populations; Complex Emergencies.

Disaster stressors may be additional to ongoing or past major trauma. This may range from individual experiences such as child abuse and domestic violence; through to groups such as those exposed to trauma and loss as refugees; to indigenous populations with extensive past or current trauma and loss or adversities; through to experiences such as conflict and other ongoing disaster / threat emergencies. For some so exposed, such stressor exposures may have built increased capacity to cope with adversity but many are likely to be particularly vulnerable. Some populations with diverse needs may also come into this context.

Stressor exposures may be single or multiple and with diverse consequences. They do not inevitably lead to pathology or disorders. They initially impact to stimulate, or lead to, a range of biological, psychological and social reactive processes over time. These trajectories or processes may vary over time as the changing ecological context evolves, and those affected may be resilient or vulnerable in terms of their perceptions, their individual personal, biological (including genetic) and psychological processes and risk and protective factors that influence the course of their adaptation over time.

It is important to recognise that much of the research literature in this field is from US and Western conceptual frameworks; that it has had a very strong focus on “trauma” as the overarching model, and “PTSD” as the major outcome. There is now increasing recognition of the multiple and complex stressors, for instance loss and bereavement, children’s developmental needs, dislocations, and disruptions of place, time expected futures and others. And cultural differences are recognised to a degree, but “trauma syndrome” constellations remain the major outcomes studied. This is
highlighted by recent definitions of “resilience” for instance as the absence of PTSD or the presence of only one PTSD symptom after exposure to a “traumatic” stressor (Bonanno and Gupta, 2009).

**Adaptive Processes**

It is important to recognise, assess, and take into account the adaptations that are positive, where people and communities demonstrate courage, personal strengths, altruism, affiliative behaviours, in the emergency and subsequently. This is more frequent than pathological or negative reactive processes, although both may occur.

Like reactive processes of distress, and challenges to usual ways of functioning, there are also positive adaptive strategies and trajectories over time. These include resilience, post-traumatic growth, and other individual and group processes.

Resilience is the term most frequently used, generally referring to ‘individual resilience’, often to indicate the lack of pathological outcomes in the face of very stressful experiences such as threat to one’s life, or loss of a loved one. “Resilience” is seen as the capacity to “bounce back” after adverse experiences. It is differentiated from “resistance” which is used to indicate not being impacted at all; and “recovery” as coming back to usual functioning after distress, impairment, having reached significant levels. Most importantly resilience is a process, a trajectory over time. And while it may be used to reflect something such as not developing PTSD with severe stressor exposures, people are frequently, usually, spontaneously resilient in a great many of the aspects of their emotions, cognitions and behaviours, i.e. in many other aspects of their lives. Thus it is important not to presume ‘resilience’ stands for lack of any mental health or other problems.

Resilience also applies to families, organisations, communities and other systems, again with the inference of the capacity of these to ‘bounce back’ in the face of threat or disruption. Norris et al (2008) have reviewed the scientific literature and suggested a model for community resilience. This encompasses four domains: Information and Communication; Community Competence; Social Capital; and Resources. This work also encompasses resilience as a process.

Post Traumatic Growth is another widely studied adaptation following the work of Tedeschi and Colhoun (1996, 2004). It has been found that many people, even if distressed, even when they have gone through terrible experience, report that: they have been strengthened by this; that they have re-evaluated their lives; that they have ‘grown’ personally as a result of the adverse experience.

Resilience, Post Traumatic Growth and other more positive adaptations need to be recognised as very significant elements in the impacts and consequences of disaster, and mental health in these
circumstances. They should be “looked for”, assessed or recognised, and taken into account in the overall understanding of disaster mental health.

**Two other concepts about adaptive processes** need to be considered. Firstly, it is possible to be resilient in one domain and not in another. One can experience “resilience” and suffering together. It is also possible to be resilient at one point or phase and not another. Resilience is a trajectory or process. Secondly, after the experience of disaster, life is not the same. It is always different, new in some way, good and/or bad. Thus the concept framed by Walsh (2002) after 9/11 of “bouncing forward” is a useful one, though not widely taken up.

**Distress, Reactive Processes and Health Consequences**

Patterns of distress may be generic, or indicate specific phenomena, such as those of traumatic stress reactions and those of grief. They are most usually a complex mix. There may also be fear, uncertainty, hope, despair, and behavioural response. Comorbidities are frequent.

- **Traumatic stress reactions may include:**
  - Re-experiencing phenomena
  - Avoidant, numbing phenomena
  - Arousal phenomena and fear reactions

These may or may not reach diagnostic levels for Acute Stress Disorder (see Appendix E). Studies have demonstrated that such reactions settle in the early week or weeks after the incident. If they continue at intense high levels with fear, racing heart and functional disruption, there may be increased risk for the development of Post Traumatic Stress Disorder to current Diagnostic Criteria levels (see Appendix E).

**Acute Stress Disorder or Post Traumatic Stress Disorder** are frequent patterns of disaster morbidity, with associated clinical and functional consequences. They usually closely related to the severity of the stressor exposure.

- **Loss Stressor reactions, grief may include:**
  - Yearning and “searching” behaviours focused on the lost person
  - Angry / protest and anxiety (separation), sadness
  - Arousal and distress about the loss
  - Sadness and preoccupation with memories
These may continue at high levels or settle gradually over the early weeks. If they continue with high levels of distress and functional impairments the person may be at risk of bereavement related problems or complications.

These potentially include Traumatic grief or Complicated / Prolonged Grief Disorder (Prigerson et al, 2009).

- Despairing reactions, helplessness, hopeless feelings, negative preoccupations, if continuing or increasing, may be part of initial reactions, but may be indications of ongoing depressive syndromes. Extensive damage, destruction and loss may be a basis for such reactions initially or they may reflect an exacerbation or increase in pre-existing depression pathology.

Major depression is however a common consequence of disaster experience and diverse stressor exposures. It is frequently comorbid with trauma syndromes and often linked to personal or resource loss. It should always be considered when assessing those affected by disaster.

- Ongoing fears and avoidance of reminders related to the experience, may occur as part of the initial reactive process but may indicate, if continuing, risk for:

Other anxiety syndromes including Phobias (social and other), Generalised Anxiety Disorder or Panic Disorder are also potential outcomes.

Behavioural change may occur as an initial reaction but may merge into a pattern of health risk behaviours or other risky behaviours with associated problems. These can include:

- Increased substance use such as alcohol, smoking, marijuana or other drugs
- Poorer exercise, nutrition and sleep patterns
- Risk taking
- Anger and changed social interactions or withdrawal
- Poorer concentration, focus and attention to work, tasks or others
- Preoccupation with the experience and its consequences, and functional impairments or repetitive behaviours.

These may lead to other adverse general health consequences, including cardiovascular, respiratory and metabolic conditions.
Health consequences may include intense continuing health fears and preoccupations leading to somatisation syndromes.

There is the need to consider also, and manage the physical health conditions resulting from disaster, health or its consequences, or coincidentally, i.e. and integrated approach.

Failure to continue management of pre-existing illness or chronic conditions requiring health maintenance may also occur. These include severe, disabling and Chronic Mental Illnesses, Psychoses and others.

Clearly clinical assessment should inform decisions as to diagnosis and management, but with a cautious approach, taking into account the many normal reactive processes and distress that may settle during the early weeks. It is important to provide necessary health care access and support, but to avoid the premature presumption of pathologies. Positive expectancies, assessment of risk and protective factors, and recognition of the diversity of human adaptations, the likelihood that many will be resilient, should be taken into account.

Intervention Programs for adults should as always be linked to assessment, be shaped to individual needs, be informed by best available evidence and practice, and implemented by personnel with appropriate skills. It is generally agreed that three levels of intervention are relevant: basic Level I: Psychological First Aid and Personal support; Level II: Skills for Psychological Recovery; Level III: Specialised Interventions for those most severely affected. A range of basic and higher level training programs and resources is available (ACPMH http://www.acpmh.unimelb.edu.au/). Services may be delivered in a range of ways including through referral systems from G.P.’s to clinical psychologists, (Better Outcome) and ATAPS programs.

General Practitioners are key personnel because of mental health/physical health effects and diagnoses and management requirements. Mental health professionals, psychiatrists, psychologists and others are important resources.

Children and Disaster Mental Health
The ways in which children will be affected by disaster will be influenced by their age and developmental levels, the degree to which they are exposed to severe life threat, loss, separation from, or loss of, a parent or significant other, dislocation from familiar settings, and the fears, threat or distress that may impact on family and on his or her world. Disruption of family rituals, schools
and other indicators of security, of relationships with friends and significant others, can all have effects.

For younger children, effects may be reflected in behavioural changes such as regression, withdrawal, clinging, or other internalising behaviours, or externalising conduct, or aggressive, acting out behaviours. Changes may not be recognised as reflecting grief or fear, but often seen as ‘bad’ behaviours, or that the child is not affected.

For adolescents the symptomatic reactions may include bravado, behaving as though unaffected, pseudo-maturity, through to altruistic, courageous, and resilient behaviours. As children grow through adolescence patterns of pathology are increasingly similar to those identified for adults. For families and for children, trauma, loss and grief reactions may interact for members, with parents reactions affecting children and childrens’ parents. There are also often different timings and patterns of distress which may lead to misunderstanding. Families may share patterns of dealing with adversities in a range of dynamics, some avoidance, some conflicted, many affected by the dual roles of both comforter and bereaved, and most with mutual support, shared strengths, grief and consolation, moving on over various timelines.

Research such as that of Pynoos et al (2007) over decades has shown that the nature of the stressor may influence patterns of distress, and mental health outcomes. Life threat may be associated with trauma symptoms; loss with grief reactions; separations with separation anxiety. La Greca et al (2002) have drawn together much of the research to the time showing the importance of parental, family and context factors.

Mental health consequences may include: PTSD, (diagnosed differently compared to adult criteria); anxiety and depression patterns; somatic complaints and behaviour change. For younger children diagnoses are more likely to be reflected in internalising/externalising symptom patterns or disorders, particularly in association with trauma impacts. In older children and adolescents, problems may more clearly reflect the symptom patterns of adults.
Intervention programs for children have been researched and developed for implementation through a number of programs and settings and including schools, group and family focused programs. These rely on cognitive behavioural and trauma focused strategies, as well as grief modules. They are based on core principles, as with adults i.e. three levels: Psychological First Aid; Skills for Psychological Recovery; and Specialised Interventions. These deal with traumatic exposures, trauma and loss reminders, bereavement, post disaster adversities, and importantly, developmental progression.

**Epidemiology of Disaster Mental Health**

The extensive development of epidemiological and other research has highlighted the patterns of pathology that may emerge and the associated risk and protective factors.

Epidemiological studies have demonstrated: the extent mental health/pathology; effects in disaster affected populations over time post incident; the patterns of disorders that may result. While there has been a major focus on PTSD, other outcomes have also been researched, such as other anxiety disorders, major depression, bereavement/grief pathologies; somatic syndromes and behavioural social and general health outcomes.

Early studies mainly dealt with the outcomes of *natural disasters* such as floods, cyclones and hurricanes, bushfires and forest fires, and earthquakes.

Studies also addressed *technological* disasters and *accidents* including contamination with chemicals such as Bhopal, building collapse, transport disasters, nuclear incidents such as the Three Mile Island incident (Bromet et al 1982).

**Terrorism:** Epidemiological studies of these impacts became a significant focus after 9/11, London and Madrid bombings. This series of studies generally examined PTSD, but also discussed other outcomes for selected populations, such as the bereaved.

**Mass Catastrophes** as reflected in the very large scale natural disasters affecting huge populations have also become a focus for studies, although epidemiological studies have often been difficult to set up in the chaos of the aftermath. Kessler et al (2009) worked with a Community Advisory Group to carry out such studies after Hurricane Katrina. While there are studies following the South East Asian Tsunami, Sichuan Earthquake, Haiti Earthquake, and other such incidents, they usually deal with specific sub populations. Similar challenges arise when huge geographic areas are affected, even if there are lesser death tolls, as with the Victorian bushfires of 2009, Queensland floods and cyclones of 2011. Even greater difficulties arise with respect to Japan with Earthquake, Tsunami of
massive proportions, deaths, and population dislocations and superimposed nuclear incident of the Fukushima Power Station.

Galea et al (2005) have provided a valuable overview of the epidemiology of Post Traumatic Stress Disorder after disaster. Neria et al (2009) provide a review and overview of the findings in the recent volume “Mental Health and Disasters”, as does North, in Ursano et al (2007). The patterns of specific disorders such as Anxiety Disorders and PTSD, Substance use and misuse, Depression and Prolonged Grief, have all been addressed. Those interested in further detail are referred to these volumes. Studies described clearly indicate prevalence of disorders is strongly related to severity and propinquity of exposures, to the degree of threat and loss, and to ongoing stressor consequences.

Galea’s comprehensive review to that time, (2005), examined the epidemiology of Posttraumatic Stress Disorder after disasters. In the 40 years he reviewed, he found that there was a substantial burden of PTSD among people who had experienced a disaster, and that the risk of PTSD was consistently related to the extent to which they had been directly exposed to stressors such as injury and life threat. This work supported earlier findings that prevalence of PTSD was likely to be higher after human-caused and technological disasters, compared to natural disasters. Galea et al concluded that the prevalence among those directly affected could be as high as 30 – 40% in the first year, and amongst the general population, approximately 5-10%. It was seen as likely that 10-20% of rescue workers could develop PTSD. In terms of the longer-term effects, the degree of exposure continued to be important, especially if there was more injury, property destruction and threat to life.

This review went on to consider other risk factors for PSTD and reported a higher prevalence of PSTD for women; persons with pre-existing or current psychiatric disorders; those with a past history of trauma; and persons with low levels of social support. They also suggest there was no specific individual coping style or psychological profile that was predictive. With respect to the course of PTSD after disasters, this review highlighted the need for longitudinal studies, although what was available at that time found that at least a third of people who had early onset of PTSD were at risk of chronic disorder 2 or more years after the disaster.

What was not clear in the research reviewed was whether different factors contributed to the persistence as opposed to the onset of PTSD. They concluded that it was very important to have baseline population data about risk and levels of morbidity so as to be able to estimate more
specifically the factors that might contribute to the development of PTSD and the critical importance of further research exploring aetiology of this morbidity in terms of potential behavioural, psychological and biological variables. In addition they highlighted the importance of understanding better why women are more vulnerable. The trajectories of PTSD post-disaster in the early and longer-term and the understanding of whether interventions could modify the course of PTSD was a particularly important area for further research. This would need to examine not only pre-existing variables but also the more accurate assessment of the stressors and their impact, and the likelihood or otherwise of the contribution of the post disaster environment.

Galea (2008) in further longitudinal studies of posttraumatic stress after 9/11 found that ongoing stressors played “a central role in explaining the trajectory of posttraumatic stress over time” (p.47). They also suggested that factors other than the stressors experienced may well account for differences in risk related to gender and ethnicity. Low income contributed to posttraumatic stress over time, and while the elevated risks of gender and ethnicity were confirmed, there was no simple explanation of these factors. Reducing adversity was seen as one of the important factors to consider in lessening negative trajectories.

Risk and Protective Factors that may influence outcomes have been identified across many of these studies. They include, but are not limited to, the following.

Risk Factors include:
- Severity, closeness and nature of stressor exposures
- Prior traumatic or loss experiences
- Multiple stressor exposures
- Lack of social supports, including family and others (i.e. lack of social support that was perceived as helpful)
- Other adversities and resource lack e.g., sociodemographic, isolation
- Injury, dislocation
- Chronic, consequential and coincidental additional or multiple stressors around the time of the incident or during the recovery phase.
- Pre-existing vulnerabilities, including some personal characteristics, physical, social factors
- Children and other populations may be at heightened risk (See Chapter 8)

Protective Factors include:
- Lesser stressor exposure
- Positive social support including family and other, and connectedness
• Few additional stressor exposures
• Hopeful, optimistic personality characteristics
• Fewer other adversities, and positive social resources such as socioeconomic status and education
• Sense of efficacy, capacity to act, capacity to access needed resources
• Pre-existing strengths including capacity to manage and adapt to adversity as challenge.

While these are listed in terms of individuals, specific factors may protect populations, including social capital and cohesion, access to resources and the capacity of communities and systems for resilience, are important and interactive variables (e.g. Norris et al 2008).

**Disaster Mental Health Generally**

This field is continually developing, with research challenged by the mass adversities such as the Haiti earthquake, the insidious effects of terrorism and insurgency threats, and the need for stronger science for prevention and early intervention. The need to address roles for mental health in terms of health effects that also occur, and adverse physical and mental health consequences, is ongoing and evolving. Ursano et al (2009) make clear the importance of not labelling normal distress as pathology in considering the nature of psychological and behavioural consequences.

The neurobiology of disaster mental health is also a growing area, well covered by Smith et al (2007) in Ursano et al (2007). This field continues to expand.

The issue of resilience has also become an important focus, but needs further analysis and should not be assumed. Disaster related pathologies may not present in the early post-disaster phase, when preoccupation with survival and re-establishing life may be priorities. Need, distress and possibly mental health problems may be prolonged. However the development and implementation of services to encompass these consequences should focus on recovery and renewal strategies and future-oriented adaptations.

Interventions to address these mental health and health consequences are addressed in dealt with detail in relevant chapters.
**Future challenges:** Integrating disaster mental health with the difficulties of mental health care more broadly, the aetiology, prevention, early intervention and treatment, will require collaboration and commitment from scientists, service development and delivery system leaders, and practitioners in the field. It will also specifically require learning from, and working with diverse cultures and experiences in a global context (Kessler et al, 2008a; Raphael, 2008).

Additional Health Aspects Associated with Disaster

1. Physical illness associated with disaster-induced stressor exposures and disorders such as PTSD.

Boscarino (2004) in a review of epidemiological studies looking at the relationships between PTSD and physical illness, reported that chronic or complex PTSD was most likely to be associated with the linkages between PTSD and physical health problems such as cardiovascular disease, as well as possible correlations with a range of other disorders including diabetes, gastrointestinal conditions, chronic fatigue, etc. Such linkages can operate through a range of pathways including stressor effects and the hypothalamic-pituitary-adrenal (HPA) and sympathetic-adrenal-medullary (SAM) stress axes. Genetic, behavioural and other factors could also be relevant. Spitzer et al (2009) studied the relationship between trauma exposure and PTSD and physical illness in a population sample of 3171 adults in the community. Their findings suggested a strong association between PTSD and cardiovascular and pulmonary disease and highlighted the need to address these issues in the management of both PTSD and such physical illnesses. It is important for those providing response in disaster to recognise that physical health consequences can occur through multiple pathways. These include:

a. **Direct effect of injuries or exposures**, e.g. to toxic or infectious agents
   
   Apart from injuries there are also the effects of exposures such as the dust cloud after 9/11. Farfel et al (2008) reported on a total of 71,437 people enrolled on the World Trade Centre Health Registry, and found newly diagnosed asthma was common, particularly amongst rescue and recovery workers who had worked through the debris. 13% had sustained an injury and 16% had probable PTSD, which was higher amongst those of Hispanic background (30%), or had low household income, or were injured.
b. **Changed health behaviours**, e.g. exercise, nutrition, substance use

c. **Stressor exposures and potential health effects**

Holman et al (2008) examined the degree to which acute stress reaction to 9/11 correlated with cardiovascular outcomes in a population-based national probability sample of adults over the subsequent 3 years. They found that such acute stress responses were associated with a 53% increased incidence of cardiovascular problems over the following 3 years, even when they adjusted for pre-9/11 cardiovascular, mental health and other risk factors. These were higher for those who reported ongoing worry about terrorism and high levels of acute stress symptoms. The risk for physician-diagnosed heart disease was very significantly increased.

2. **Population-level effects**

Richman et al (2008) make a valuable contribution in examining macro level stressor patterns. They carried out a 6-wave longitudinal mail survey, which had gathered data before 9/11, and then in 2003, and 2005. They examined the relationship between “measures of negative terrorism-related beliefs and fears” (p.323). They found such fears were associated with increased psychological distress and adverse drinking outcomes, highlighting the negative impact at a population level, and the importance of pre and post measures.

A comprehensive review of the physical health problems after disasters was provided by Yzermans et al (2009). They note the possible effects related to pre-existing health problems; immediate health effects of the disaster such as injuries, burns or other consequences, including for instance toxic exposures; health problems in the first weeks which may not be recognised initially or may be related to stressor exposures; health problems presenting in the first year or later where they may occur as physical illnesses comorbid with PTSD, depression or other conditions, or as a consequence of stressor exposure either earlier or related to the post-disaster difficulties / consequences.

3. The prevalence of **Medically Unexplained Physical Symptoms** (MUPS): As noted by numerous authors, research is needed to further clarify such conditions which may present to primary care and other settings, and present diagnosis and management difficulties. (Yzermans et al 2009, Van den Berg et al 2005)
Many different physical symptoms may present in the post disaster period and are reported in diverse studies. Commonly reported are: 
fatigue; headache; dyspnoea; skin problems; gastrointestinal symptoms; palpitations; digestion difficulties; poor appetite; dizziness; chest symptoms; sleep problems. Studies quoted by multiple authors indicate that when compared to control population, disaster survivors tended to report significantly higher mean scores of physical symptoms, e.g. 10.5 times for office workers after 9/11, and 2 times more after the Ash Wednesday bushfires. Rescue workers were often vulnerable in this way, even years later. Elevated rates of physical and psychological symptoms and lesser but important levels of disorder, they further emphasised the links between disaster exposure and hypertension, diabetes. They emphasised the strong relationship between experiencing disaster and cardiovascular symptoms and disease.

While some of these associations reflect pre-disaster vulnerabilities, disaster related risk factors including psychological stressors such as life threat and loss may contribute and subsequently comorbidities with PTSD, Depression or other conditions.

These findings are highlighted because of the importance of taking into account both physical health and mental health assessment, in the management of those affected by disasters, women, men, children, responders, old people, and particularly individuals and populations who have been severely exposed, often with diverse and multiple, actual and perceived, threats/hazards.
Mental Health Implications

The effects of disaster generally and the specific nature of the disaster will be important for the health and mental health consequences. Also relevant for individual assessment will be the specific exposures and experiences of individuals; the severity, nature and duration of exposures; characteristics of individuals and populations affected such as risk and protective variables, their consequences and the resources, including social and practical support available to those affected.

The research about disaster mental health is increasing rapidly, but findings vary depending on measures, populations studied and multiple other risk and protective factors noted above.

Those working to prevent, mitigate or manage consequences for mental health post-disaster need to be guided by the following key principles:

1. Mental Health response should recognise, prioritise, and validate experiences, courage, survival and safety. It should be informed by:
   - Impact and needs assessment at population and clinical levels
   - Assessment of strengths, support and other social and physical resources that can facilitate positive adaptations, including individual, community and societal capacities.

2. Assessment should also take into account what is known about brief, reliable and valid measures that may inform and facilitate understanding of progression over time so that recovery and need can be understood in terms of affected individuals and populations.

3. Assessment should encompass mental and physical health needs, symptoms and impacts in an integrated way, in linkages between GPs, mental health, and other health providers, as well as at population levels.

4. Interventions provided should be based on, as far as is possible, or informed by, the best available scientific evidence of what is likely to be most helpful for this person, this population with the specific identified problems and strengths. Effective practice should also be taken into account, where this has been established by evaluation and is not associated with potential harms.
5. While some interventions, prevention, early intervention and management, are considered to be the most effective, all approaches and engagements should be negotiated with those affected, taking into account the realities of their lives in the post-disaster period, and their readiness and capacity to benefit from what is offered, and their rights for decision making about what is offered.

6. At all stages from needs assessment to rehabilitation, the strengths and resilience of those affected and their communities should be viewed as critical to their positive mental health outcomes. These human resources should become a recognised component of response and management, while at the same time suffering and need are addressed and managed in partnership with those affected.

7. Social support when perceived as helpful is a valuable resource for those adversely affected by disaster: both the giving and receiving of this. Social engagement with family, community and others, networks of those affected can increase the capacity to overcome mental health consequences, bringing extra social capital, including the use of social networking.

8. Information and communication are important both in terms of what people can do for themselves, together and with others, and what others are doing. At individual and clinical as well as community levels, this can make a difference.

9. Practical actions and activity can be enormously helpful; actions people can take themselves to deal with what has happened; actions to rebuild or for recovery, and particularly actions of engagement in work or other roles with return to school, work and other significant, valued and meaningful activities.

10. People’s narrative, story, meaning making of their disaster experiences may be written down, or told. This can be important to their capacity to move forward or ‘bounce forward’, with some hope for the future. Disasters usually involve some degree of loss and grieving for what will never be the same again; as well as dealing with present difficulties and future challenges.

It is important for those working in disaster mental health and those affected to recognise that these human experiences will be reflected in diverse ways. They will often bring threat and loss. They will also bring challenge. For the most part they bring out the best of people in the emergency: courage,
altruism, effective actions. The long aftermath is more complex and responsiveness involves acknowledging the achievements of survival, the realities of loss, the challenges of the aftermath and the resilience and fighting spirit to endure, to go forward and build new futures.
References


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Chapter 7 - Population Health; Public Health and Health Services: 
Mental Health Strategies

There is recognition of the critical need to take a population approach in the All Hazard disaster model, and mental health knowledge and strategies are essential components of this. Population issues have been encompassed at earlier stages of the evolution of the field of disaster mental health. However they have gained prominence in the past decade through the expansion of epidemiological research involving affected populations; large scale mass natural disasters and terrorism affecting populations; the need to inform and engage populations in prevention and preparedness; in response and health protection strategies; and in recovery. The mental health effects at population levels, human behaviours, and on health and wellbeing as a result of diverse threats and exposures, with recognition and the range of, population vulnerabilities as well as strengths, may need to be taken into account. This is a large and expanding field.

Population mental health encompasses Public and Population approaches to mental health as well as clinical services (Raphael 2000). This builds on the Institute of Medicine framework (Mrazek & Haggerty, 1994).

Figure 7.1: The Mental Health Intervention Spectrum for mental disorders (adapted from Mrazek & Haggerty, 1994).
Aims

To identify mental health components that are significant for the population and public health aspects of (disaster) All Hazard Prevention, Preparation, Response and Recovery strategies. These will include

1. **Population health** in terms of **baseline epidemiological knowledge and surveillance**, including mental health risk and protective factors, pre and post incident surveillance.

2. **Information, communication and community engagement** in PPRR and mental health aspects, including information, communication systems, resources and actions. This involves strategies to inform, communicate and mobilise effective actions which will enhance capacity for survival, health protection, mental health and wellbeing, building on available scientific knowledge.

3. **Health, mental and physical health, systems/models of service delivery and the integration of core elements of disaster health and mental health** into these through collaborative partnerships and capacity building. This includes public health systems, primary care, community health, hospitals and private sector providers.

4. **Enhancing workforce performance, competence and capability** through education, training and exercises, as elements of professional education and continuing development. This also involves specific attention to sustainability and updating of necessary knowledge and skills; and occupational health and mental health and safety. Workforce issues will be dealt with in this chapter.

A. Population Health Monitoring & Surveillance

The World Health Organisation in its advice about disaster planning and management has highlighted the importance of baseline epidemiological data covering affected populations where this is available (WHO, 2007). This information provides indications of vulnerabilities and existing health issues. Post incident health surveys and surveillance can indicate change related to disaster exposures. This can also be utilised to establish population level needs analysis (Kessler et al 2008), and thus a basis for health and mental health care programs. Other baseline data can also be of use, including health care utilisation.

A further issue is identifying unique populations characteristics, which might shape specific response.
Health Data:

- Baseline data – epidemiological/survey findings
- Disaster type and nature, impact and exposures as identified at individual and population levels
- Surveillance data
  → impact, i.e. effects on health such as injuries, toxic exposures or other health effects, mental health distress and symptoms, and functioning related to health effects
  → potential needs
- Monitoring/surveillance overtime
  → emerging health issues
  • Risk & protective factors
  • “Delayed” pathology
  • Longer term patterns of health problems over time
  • Resilient trajectories
  • Recovery and adaptation
  → effectiveness or otherwise of
    - intervention strategies
    - possibly health utilisation (e.g. using data linkages, or survey monitoring)
- Knowledge development cycles to inform future planning for emergency or ongoing health needs

NSW Health has established baseline data on health and mental health, against which change and disaster impact could be compared.

Mental Health as an Integral Component of Population Health Monitoring and Surveillance

Possibilities could include the following:

Baseline data: National Survey Mental health and Wellbeing 2007, ABS Health Surveys, NSW Health Survey (CATI) including Psychological Distress using K10 (Kessler 10) and key socio demographic, social capital and health indicators, including ideally indicators of resilience and strengths should be encompassed in baseline data sets.

Baseline data is also available on perceived risk and concerns, and likely protective behaviours for terrorism, pandemic, drought and global warming (Agho et al 2010; Stevens and Taylor, 2009; Taylor et al 2009; Raphael et al 2009).
Disaster exposures data on numbers, types, locations

- Deaths
- Losses of loved ones, separation, fears for their wellbeing
- Injuries, burns
- Dislocations from home, community etc.
- Other losses, home, animals, workplace, sense of safety
- Dead bodies: exposure to multiple, possibly mutilated dead bodies

Perceptions, Experience, stressor reactions and positive aspects

- Perceived personal life threat (“I thought I could die”) and reactions; re-experiencing, avoidance, arousal
- Losses and reactions to these – e.g. searching, yearning, grieving
- Helplessness, disorientation, dissociation
- Other reactions related to current or ongoing threat, for instance fears related to further attacks, disaster after-effects, chemical, biological or radiological / nuclear materials, further attacks, or in relation to the consequences of the particular hazard.
- Perceived positives / resilience e.g. actions taken, coping, strengths, hopefulness, support of others.

Surveillance data for mental health could provide:

→ Mental health/psychological distress patterns, compared to baseline; potential risk and protective factors; as well as health needs and behaviours

Risk Factors (possible):

- Ongoing intense reactive processes high level e.g. arousal, yearning
- Multiple stressors, adversities
- Pre-existing vulnerabilities

→ Need assessment – this could be practical, ongoing, and monitor risk and protective factors, patterns of distress over time at population level.

Protective Factors (possible):

- Connectedness, social support
- Perceived self efficacy, community efficacy
- Social capital
- Resources available to support people and communities
Mental Health Actions

These strategies can be considered by mental health leaders and managers as part of their strategic planning, but would require the collaboration and support from health; mental health epidemiologists, and mental health expertise relevant to public health or population health; and could be implemented as feasible. This could be advocated in terms of potential contributions to identifying and assessing disaster affected populations’ needs and more effective, efficient disaster management.

Such population level strategies could also identify groups where ‘screening’ and treating programs could be targeted (Brewin et al, 2008).

- Actions people are able to take themselves to respond, recover
- Perceived hope, optimism, coping
- Resilience “indicators”
  - Monitoring and surveillance over time can provide important data, and depending on the disaster, and indicators of need, timing and feasibility of potential intervention strategies. This could provide the bases for:
    - responding to ongoing or emerging health and associated mental health issues
    - facilitating resilient trajectories
    - assessing potential effectiveness of interventions in terms of outcomes, health care utilisation and so forth.
  - Knowledge development cycle – using findings from surveillance, even if on a limited scale can help to inform future All Hazard PPRR and to build more effective, research-based planning and practice.

B. Information, Communication and Community Engagement

A central responsibility for Government and lead agencies is the provision of information about potential hazards, about actions being taken, or that people themselves can take, to address these and protect the population. Information about risk, protection against and management of, hazards, and communication strategies that convey messages clearly are a major aspect of educating the population.

Engaging communities and their members to understand, and as appropriate, take action across All Hazard PPRR, is a key aspect of disaster management.
Considerable research has gone into this field, particularly with regard to hazards of infectious disease or pandemic threat, where encouraging people to take up behaviours such as wearing a face mask, social distancing, hand washing, may be important in containing spread.

Information, communication and community engagement should address critical aspects, e.g.

1. **Prevention**: - what is being done, e.g. Government, others, to prevent hazard such as natural disasters, pandemic, terrorism.
   - what people themselves can do at community or individual levels
2. **Preparedness**: - what is being done, planning, testing, resources.
   - what people can do themselves e.g. family emergency plan
   - information and warning systems
3. **Response**: - what will be done by whom in the emergency to mitigate impact
   - what people can do themselves e.g. safety measures, evacuation etc
   - information and communication during the emergency
4. **Recovery**: - what will be done to deal with the aftermath
   - what people themselves can do
   - information and communication about problems and how and where to get assistance

**Information and Communication**

There are a number of important aspects in this developing field.

**Shaping & Targeting Messages**

Testing the “messages” to be given in information delivery is an important strategy in shaping content to achieve goals. There is considerable work in this field through the Australian Government, and States and Territories.

Research has generally established that the message for potential actions needs to be simply and clearly stated, with a clear indication of what to do if action is required, and what may be achieved. It is often useful to make clear how and why this is likely to be useful.
Population education effectiveness has been studied in public health strategies, for instance in campaigns about smoking, alcohol and drugs. It is clear that many factors will influence:

- **uptake** of the information – for instance social desirability ease, positive nature of action etc.
- **actions** on the information provided may not necessarily follow. This usually requires the acceptability, social desirability and possible benefits noted above, plus personal motivation.

Many other factors come into consideration and a range of psychological theories, for instance the theory of reasoned action, protection motivation theory, and others, may inform the development of such strategies.

**Social Marketing** and strategies from commercial fields such as advertising can be helpful in shaping effective messages from health and public health points of view.

**Message intent and provision.** These strategies need to take into account what outcomes or actions are desired, but to avoid potential negative effects. Messages aimed at inducing high levels of fear and anxiety about possible threats, in the population broadly or in vulnerable groups, may be counterproductive. Potential value and social desirability of proposed actions may make it more likely they will be taken.

Health information and messages need to be thoroughly tested with focus groups, surveys and the like and their potential effectiveness as well as impact clarified. Mental health aspects of health broadly and mental health specifically, also need similar careful message and communication development, particularly in view of the stigma that may be associated with “mental health”. Mental health leaders and communication experts can make important contributions to this process, building on ongoing work with media experts.

**Information Delivery**

Information needs to be available, clear and easily accessed across multiple systems, and its purpose made clear for those accessing it. These systems include but are not limited to:

- **Print media** e.g. pamphlets, newspapers, magazines either generally or specifically focused/delivered.

- **Internet** and web based sources including social network and communication components such as Facebook, YouTube, Twitter and so forth need to be considered. Specific sites,
government or other, may be identified, or specific disaster or other hazard resources sites (e.g. Pandemic, Terrorism).

Radio messages are helpful and local ABC radio plays a major role in disaster information and local warnings, in the event of a disaster in the Australian context.

Television can provide information for PPRR and in emergencies.

Mobile phones are central and important for messages including texting, especially in the emergency, but may be unavailable if systems “go down” or are shut down, as with terrorist threat.

Local interpersonal networks may also be a vehicle for passing messages through neighbourhoods, and may be particularly important for those more socially isolated.

Important considerations include

- Shaping information, content and delivery to engage relevant populations and with messages tuned to what is likely to be effective for them (e.g. youth and mobiles, web, networks etc)
- Repeating clear message themes in different ways and maintaining key messages
- Updating and renewing messages if not effective or new information is to be communicated, are important for the trust and utility of the resource
- Culture and language should be basic considerations, and informed by multicultural agencies. Testing to ensure translated information conveys necessary messages, and that provision is culturally appropriate and sensitive, is an important strategy.
- Working closely with media experts is very helpful, from the earliest stages.
- Information and its communication and delivery should be a “living” process informed by research and evaluation of effectiveness
- Responsible sources of information should be made clear, e.g. government, emergency agency leaders. The “face” for the provision of information, i.e. the lead person or persons, may be helpful in building trust in the source.

Effective public health strategies not only provide necessary information for guidance about health, but have also utilised regulatory, financial and other strategies to progress health outcomes – for instance:
• Access – e.g. cigarettes and alcohol and youth
• Costs – e.g. cigarettes, alcohol
• Regulation and Standards – drink driving, seat belts
• Incentives – exercise rewards
• Champions e.g. leaders advising against violence
  - Michelle Obama and activity to deal with childhood obesity in the USA

These are not necessarily readily available for health and mental health, in the disaster context, although the modelling and leadership displayed by admired persons can be helpful. This could be developed with respect to aspects of disaster / hazard relevance across PPRR.

**Mental Health Actions:** Mental health leaders and managers should build collaborative linkages with communication experts, media and community members to develop information and communication strategies that are effective in achieving population goals of knowledge, skills and behaviours, and such as are needed to prepare for disaster and mitigate its impacts, and specifically mental health effects. These should also deal with advice on recovery strategies and service access. Managers should avail themselves of recent research informing this field for instance, the limitations of psychoeducation (Wessely et al 2008); the potential benefits of preparedness education; templates for post incident recovery advice.

**Communication**  Communicating information about risk and actions to be taken to address this has been considered in depth in terms of how the communication can best achieve aims. In particular it needs to take into account the concepts of risk and how people respond to perceived risk, potential behaviours and possible outcomes. Critical issues include trust in sources, accurate, simple and honest communication and ongoing communication strategies. The key elements are identified in the following list (adapted from Tinker and Vaughn, 2004, p.49), and in detail in chapter 2.

- Leadership: Trust, Compassion, Competence
- Information content: clear, honest, what is known
- Two way iterative communication with those affected
- Information Process: Timelines and updates
- Leadership and engagement of local leaders
- Information and actions that can be taken
**Community Engagement and Education**

Community engagement is important through all stages of the All Hazard Prevention, Preparation, Response and Recovery Framework. It is a significant strategy for communities of diverse kinds who may be potentially affected by disaster, but also relevant for community wellbeing and resilience more broadly.

“Community” in this context is frequently used in geographic terms, for instance, town, suburb with related population patterns, property and life style. This concept may be less applicable in a large city with a variety of diverse conglomerates of population, and with many people living alone, e.g. elderly. “Communities” may be online (e.g. youth); work or workplace-based; school linked; institutional; sporting or other group focus as a basis of engagement.

**Disaster Capability: Community engagement and education aim to enhance disaster capacity**

For Prevention and Preparation local communities may have been engaged in planning and related strategies; local emergency workers (services such as police, fire, ambulance or volunteers) may be trained to respond; people may be educated or provided with resources to respond to protect themselves, or property etc.

“Geographic communities” can often be engaged by local government, community leaders, emergency services, (e.g. Rural Fire Services, State Emergency Services, Red Cross or other agencies) and educated in key elements needed for prevention and preparation. This is most likely to be effective in terms of familiar threats such as floods, cyclones.

**Effectiveness of engagement and education** will depend on the degree to which threat is seen as serious and likely, and whether people believe it could affect them and that they could carry out actions that would be effective if a disaster did occur.
Engagement and education should, as far as possible be driven by local leadership with people perceiving trust, possible benefit, significant disaster likelihood, little personal cost, being more likely to participate.

Communities have been engaged with mental health information to manage anxiety and fear re cyclones in ways that have been of benefit for response and adaptation (Morrissey and Reser, 2003).

“Communities” related to institutions may also be mobilised, for instance schools. Up to 60- 80% of populations can or do link into local school systems. Engagement through school communities is one model which has been tested and which demonstrates potential benefits in enhancing preparedness through building individual and community competence in preparing for and in dealing with consequences; enhancing knowledge, capability and confidence; and leading to hazard adjustments (i.e. preparedness actions), and identifying sources of assistance, practical, professional and personal (Ronan & Johnston 2005, Ronan et al 2008). Such community engagement and facilitation of leadership is likely to be helpful for recovery, but also for the community broadly, as with more local incidents such as premature deaths, major accidents.

Other “institutions” that may link to their communities will include sporting associations and other clubs / non-government organisations such as local Red Cross or other groups, that are integrated with the broader community; service organisations such as police, fire, ambulance with emergency response capacity and community engagement roles; business and industry through community links and functional responsibilities such as business continuity strategies; church and faith groups; cultural groups and organisations.

Online communities are important groups, both formal and spontaneous, e.g. Facebook, Twitter (Taylor et al, 2011).

In these contexts several segments of the population may be vulnerable and less engaged, and thus more difficult to access for community or population education, that aims to enhance preparedness or response.

For Response and Recovery: Community engagement is likely to be a much greater priority for affected populations and their institutions. Engagement post incident requires key strategies to be developed by and with communities, including the establishment of local governance for recovery

i) Meeting with community leaders: to identify needs and assisting them to build collaborative leadership strategies for recovery.
ii) Developing a shared strategy for the community’s involvement in recovery and collaborative governance to support this.

iii) Information and communication frameworks and processes: these aim to establish and develop, with geographic and other “community” groupings, appropriate strategies and locally driven plans. These could address shared actions for response and particularly for recovery, for instance Community Advisory Groups to assist decision making, etc. and communication strategies e.g. newsletters. Online communities such as Facebook are important in this context.

iv) Education concerning resources, access, potential responses, needs priorities and goals over time. Important in this context is understanding bureaucratic and accountability requirements and their management, and ways to access resources.

v) Monitoring achieved goals, addressing emerging issues, dealing with ongoing or new challenges, informing progress, celebrating milestones, fulfilling roles regarding the past, what has happened, and building future orientation.
Mental Health Actions

- Mental health leaders should play significant roles with community consultation and mental health goals across PPRR.
- Mental health aspects are of relevance throughout all stages, and are strongly focused in the recovery stage. These should include but not be limited to:
  - Education about normal reactions and resilience, plus promoting effective recovery through community actions, including enhancing strengths.
  - Adaptive strategies over time with emphasis on importance of mutual support, self care and helping others plus identifying and using personal coping strengths.
  - Potential indications of need for assessment and management for adults, children etc and where and how to get assistance, including from general practitioners, specialist mental health, contact details and so forth.
  - Addressing vulnerabilities and mobilising strengths and their significance for programs of assistance including: outreach strategies; support for those bereaved strategies for specific groups including children; the elderly; those with pre-existing mental and physical illnesses and disabilities; the injured; indigenous people; those of culturally and linguistically diverse backgrounds, and others as identified.
  - Information, recovery centres, meeting and contact places and the like, to facilitate connectedness, mutual support and shared information and actions.
  - Community meetings to monitor need over time and to work with communities to deal with ongoing problems, such as those affecting people who have lost homes, who are dislocated, and so forth.
  - Provision of information and communication in partnership with communities through multiple channels, for those in the community, displaced etc and attuned to other specific needs, including for instance community languages.
  - Regular newsletters or magazines, with contributions from community members and others.
  - Internet and social networking sites and groups acting for recovery strategies.
  - Other functions facilitating adaptation; dealing with loss, trauma; and facilitating future focused actions for those affected, including playing a major role in the future of their community.
Community Education
Recent research has reviewed the evidence for the effectiveness of “psychoeducation” in preventing PTSD and shown that such provision of information does not achieve prevention. (Wessely et al, 2008). The community education strategies addressed here do not suggest prevention of specific disorders, but rather providing the trustworthy, evidence-informed and useful advice about a range of relevant matters.

Mental Health Actions: Mental health leaders and managers should develop knowledge, skills and practice for community engagement and education as relevant for their basic mental health responsibilities, and as a platform for strengthening resilience and emergency preparedness, and for effective response and recovery strategies in the face of disaster.

Community engagement and education can potentially:

- Facilitate community competence and enhance resilience
- Strengthen social and interpersonal connectedness and mutual support that could protect to a degree against adverse mental health consequences of disaster stressors.
- Promote personal efficacy and action and build individual resilience, potentially mitigating adverse mental health consequences
- Enhance social capital, which has in turn been shown to be protective for disaster affected populations
- Build capacity for dealing with other challenges and adversities.
- Build skills in managing interpersonal and group conflict
- Build capacity to “look after” diverse members of diverse populations with differing needs and thus build more harmonious, safer, and more caring social networks.
- Enhance social institutions and community partnerships and diminish social exclusion and enhance social inclusion.

Conflicts may also arise with communities in the disaster aftermath, with splitting, perceived inequities and other problems (Gordon and Wraith, 1993). It is important that facilitating supportive engagement assists communities to deal with these issues constructively, should they arise.
Health Systems: All Hazard Responsibilities

Health systems are responsive to population needs through a number of interacting systems. These may have different roles depending on the nature of the disaster. These include for instance:

Public health / Population health and working with a population level health system involves strategies such as

- **Health Protection**: for instance with infectious disease strategies, as for pandemic influenza; environmental health, food safety etc
- **Health Promotion**: strategies to enhance health positively for instance education for exercise, nutrition, relaxation, mindfulness etc.
- **Illness Prevention**: For example addressing modifiable risk factors, enhancing protective factors.

Health System: Disaster Capacity / Capability These components of the health system are usually publically funded. The role will be with respect to PPRR as exemplified by:

Health strategies

1. **Health Protection Capacity**

   This includes for example, the capacity for PPRR as indicated

   - **Infectious disease threat** – potential pandemic
     - Surveillance, information and education and national and international coordination including international health regulations
     - Planning, resource and workforce development e.g. Pandemic Plan, including containment and clinical treatment.
     - Mobilising and monitoring of planned stages and effectiveness of health protection including disease containment; system and organisational response; identification of organism; vaccine development and vaccination implementation; limiting contagion; and clinical diagnosis and treatment; disease control and mitigation.
     - Evaluating effectiveness of response and integrating into future plans.
     - Pandemic influenza or other epidemic disease can constitute a disaster by their magnitude and impacts on human populations and society
     - Differentiation from bioterrorism i.e. from an introduced organism and its deliberate spread e.g. anthrax post 9/11 in USA, is a key issue for management, but is also relevant for mental health effects
Environmental hazards, disasters “natural”, accidental, e.g. chemical spill, toxic waste, air pollution, or for example, introduced toxin. All Hazard PPRR requires:

- Protection from hazard health effects
- Assessment and management of possible “contamination”
- Treatment of conditions where possible e.g. organic phosphate effect

**Mental Health Actions**

Leaders and managers should address:

- Strategies to deal with public fears and contribute to understanding, compliance and behavioural aspects of biosecurity
- Psychosocial aspects of planning and response including
  - Staff support strategies for health care to prevent or mitigate possible anxiety syndromes, burnout etc
  - Patient support for those affected by mental health impacts e.g. PTSD
  - Support for those quarantined, and in facilities
  - Support for bereaved families
- Planning to protect mental health front line, clinical and administrative staff and systems, private systems and providers, general practitioners and others from infection etc, and maintain mental health “business” (i.e. mental health service system) continuity
- Support for others in health systems e.g. those providing results; leaders; and those dealing with the population more broadly.
- Dealing with fears regarding biosecurity - if terrorism aspects are suspected or established e.g. anthrax post 9/11
- Self care for mental health workers- to lessen risk of acute or long term health concern syndromes, or other mental health problems
- Other mental health aspects as may be relevant

**Mental Health Actions:**

- Strategies to assist the management of community, organisational and individual fears and to protect against their escalation
- Mental health protection and support strategies including assessment and treatment for those experiencing adverse mental health effects, including managing health concerns and prevention and early intervention for adverse mental health consequences associated with any physical health impacts
• Removal of hazard etc e.g. radiation threat, chemical

2. Health Promotion Capacity

Health promotion strategies could involve health advice regarding exercise and nutrition, sleep, dealing with stress, self care strategies, not engaging in increased health risk behaviours such as smoking, alcohol or other drug use, as relevant to the aftermath of

• Mass natural disasters with the aim of positive health activities, health maintenance and enhancing wellbeing.
• Terrorist attacks with the aim of promoting wellbeing and sustaining health, especially promoting positive mental health/strengths/efficacy, strategies and resilience.

3. Illness Prevention Capacity

These strategies link closely with Health Protection and Promotion. They can be seen as population and related components across the spectrum of intervention described in the US Institute of Medicine report i.e. Universal, Selected and Indicated Interventions (Mrazek and Haggerty, 1994).

### Mental Health Actions

- Mental health advice re: wellbeing generally, and positive value of exercise/sleep/nutrition and importance of health and mental health interactions
- Working with people and organisations to identify strengths, capacities and actions for the future
- Stress management strategies
- Advice on managing children’s and families’ fears
- Promoting connectedness, mutual support
- Health promoting recovery activities such as active involvement in community recovery programs
- Collaboration with non-government, e.g. Red Cross, and Welfare, e.g. Centrelink and other agencies, to promote health and mental health
- Looking after chronic disease and pre-existing mental health needs with positive health and mental health promoting focus
In the disaster contexts these could include:

- Preventing where possible, disorders caused by the disasters by addressing vulnerabilities and exposure effects, and identifying and enhancing protective factors – for instance to lessen the risk of trauma syndromes related to injuries, the effects of fear exposures, depression related to losses. Such prevention strategies require research in disaster settings to evaluate their potential effectiveness. They could include the following issues:
  - Children and their vulnerabilities should be a priority
    - Children exposed to trauma, including life threat, separation, injury
    - Children exposed to loss, e.g. parent death
    - Family stressors and disruptions, and family mental health impacts
    - School and system-focused strategies
  - Somatisation syndromes related to toxic exposures and / or their organic effects or other syndromes associated with biological agents, for instance trauma syndromes, disease anxieties.
  - Limiting stressor exposures and mental health consequences such as PTSD, Depression and other effects of stressor exposure or, where, possible, early to prevent or mitigate adverse effects on general health through changed health behaviours (intervention see below)
- Diseases that may be worsened and need management related to
  - Continuity of treatments to prevent relapse that may have been precipitated by the disaster and may need care, or new forms of care
  - Managing / limiting exacerbations brought on by disaster circumstances
  - Psychosocial and mental health interventions as required for those with physical and mental illnesses.

Possible mental health prevention strategies for children adolescents and families could include:

- Information and advice
- School based programs for prevention and early intervention
- Family information and strategies including resilience enhancement, self-care and early intervention,
- Protecting children’s mental health and ensuring access to specific interventions that are developmentally appropriate and evidence informed
Mental Health Actions

Mental health prevention roles could be relevant for mental health problems linked to disaster impacts that might arise for children, adolescents and families; for exacerbations of mental health problems and disorders; and with integrated mental health interventions relevant to physical health aspects and injuries as above. Actions could include a range of strategies aimed at more positive health and mental health outcomes. Prevention strategies include those outlined above. These have not been researched in these contexts, limiting the evidence base to inform intervention implementation.

Health Service Systems

Hospital & Clinical Services: Emergency, Community and other Sectors

These deal with people with clinical symptoms across the health spectrum, and through a number of intersectoral health system components. The broader health system includes hospital and community services, age specific groupings (e.g. children’s, adult’s, older people’s services); specialty components (e.g. cardiovascular disease, cancer); medical and surgical services and subspecialties of these). Emergency services are the acute, front end and are particularly relevant in disasters. Governance and funding accountabilities usually involve a requirement for Government and public funding; and private services also contribute through different systems of service delivery and funding, much of which is also government subsidised (e.g. Medicare). There are also likely to be funds raised from the community in response to the disaster.

Disaster Capability

Health systems are involved in disaster planning and response. There are several significant aspects that are highlighted across All Hazards.

General health systems:

1. Emergency Response: The health component of this can occur through outreach teams and possibly international deployments. It also includes emergency departments and intensive care and other aspects of emergency services. Response capacity includes the need to deal with surge of acute demand in addition to “usual” or “regular” emergency activity. It may
extend to specialised assessment capacity: (e.g. CBRN terrorism), or related
decontamination issues; specialty injury management, operating theatres, anaesthetists and
surgeons’ availability; burns units; nursing capacity; resources such as ventilation, drug
supplies etc.

2. **Longer term sustainability** of specific health care consequences of disaster for instance ICU,
ventilation, burns and injury, and associated management of demand in hospital and
community settings, rehabilitation and so forth, in addition to usual service demand.

3. **Critical infrastructure protection** and business continuity strategies to deal with disaster
impacts on hospitals, and their safety; healthcare workers and their protection and capacity
to function; plus continuing care provision with priorities for survival and sustaining care to
usual service recipients plus disaster affected persons.

4. **Workforce capacity** in terms of numbers, skills, education, training, knowledge to deal with
disaster driven health issues through the emergency and beyond, and the support for and
governance of workforce capacity building and response capability.

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**Mental Health Systems and Actions**

Mental health support in consultation liaison models is an appropriate integrated component, for
engagement with the broader health system. This can support the psychosocial aspects of the broader
health system response to disaster; including mental health effects of acute emergency or acute care;
and for staff regarding personal impacts for them and for the delivery of services.

1. Mental health aspects of emergency response include:

   - Consultation and support for the **acutely injured**, or **physically affected** and their families,
     including the case of possible exposure or severe injury and deaths
   - **Consultation and triage** for those that may have acute mental health needs; anxiety and
     arousal management strategies, Psychological First Aid
   - **Psychosocial support for those acutely distressed**; assessment and management of those
demonstrating behavioural disturbances, cognitive dysfunction or other behaviours or
symptoms of concern.
   - **Assessment and management of risk for those for whom there may be a concern in terms of
     harming themselves or others**
   - These can be well integrated with existing and new developments of mental health roles,
especially mental health nurses and **mental health units in emergency departments.**
   - Mental health / psychosocial strategies that can be utilised to brief and support **deployed**
medical teams (Stevens & Raphael, 2008) and following return, their step-down to usual duties,
and to facilitate support to their families.
• **Support** for the emergency that can extend to consultation to intensive care, trauma and burns units and the individuals so affected, and their families.
• Specific support related to terrorism, for instance high anxiety and health preoccupations related to effects of feared exposures to chemical terrorism, or biological or radiological.

2. **Mental health aspects of longer term sustainability of care** for persons whose physical health is affected, in hospital or community settings. These include consultation, liaison, and possibly specific intervention programs for:

• **Traumatised and injured patients** with strategies such as those proposed by Zatzick 2007) in a stepped-care cognitive behavioural framework, or earlier models
• **Burns patients** who may be also at heightened risk of PTSD, and can potentially benefit from psychosocial interventions to deal with mental health consequences alongside care for burns, and rehabilitation
• **People affected by other health consequences** such as ongoing health fears and preoccupations (MUPS) with counselling such as CBT, resilience enhancement and rehabilitation, emphasising functional roles, and positive strategies for adaptation.

3. **Mental health Aspects of Critical Infrastructure Protection**

• Mental health experts can provide a consultation and advisory role to assist this process and to support understanding of potential human behavioural responses and psychosocial needs of staff and leaders through these preparedness programs; and organisational strategies to optimise safety and function through emergency and later recovery phases.

4. **Mental health Aspects of Workforce Capacity**

• Mental health strategies can include education and training, briefing, and post incident support to enhance psychosocial aspects of functioning, to manage distressed, persons; crowds etc; and resilience enhancement
• **Building and supporting mental health workforce** capacity through education, training and supervision for those involved in response linked to health care systems, as well as their own support, sustainability and self care.
• Engaging and working with primary care (especially General Practitioners), private sector health providers, and other community, non-government and volunteer health related agencies.
Primary Care
This domain of the health system is closest to people and their communities. It is composed of General Practitioners, and community health services and a variety of outreach services from these and hospitals. Community nurses and nurse practitioners are important components, as are community allied health staff. Aboriginal Community Controlled Health Services represent an important primary care model, coordinating components of services to respond to need and to provide care in culturally sensitive ways. Indigenous healers are also often part of health care generally and in many developing countries and elsewhere.

Disaster Capability
General Practitioners are the usual medical providers at the Australian primary health care level and work privately but with support from Government through rebates for their patients. There is also the capacity to link patients to specific services funded through the Australian Government. In the event of a disaster for instance, GPs can, through such initiatives, refer to clinical psychologists and allied health professionals for specific counselling with respect to mental health consequences of the disaster, in addition to regular referral processes through these systems.

Several issues are relevant to GPs’ roles in disaster response.

- GPs and their families may themselves be directly affected members of the disaster community (e.g. Victorian bushfires)
- GPs at a local level are frequently first responders but may not have been involved in planning, training, or formal response strategies so that their potential and contribution may not be recognised.
- GPs involvement may not be formally mobilised or recognised except with potential health disasters, direct health effects or threats. For “health” disasters they may be specifically included in formal planning and response, as with pandemic influenza. Their own health needs and resource requirements may need to be planned for beforehand, and subsequently encompassed in response.
- GPs play an important role in relation to disaster affected populations who may present to them with health and mental health problems that have arisen and will require assessment, diagnosis and management over time (e.g. hearing problems from blast after a terrorist attack, sleep difficulties arising from trauma symptoms, or other mental health effects)
General Practitioners have important roles and their involvement is critical

- GPs should be engaged across the PPRR cycle as both leaders in their communities, and as critical to local emergency response and to recovery. GPs should have involvement in planning; education and training. GPs can assist with setting up collaborative linkages and protocols that can help those affected to gain necessary health care through the transition and recovery.

Mental Health Actions

Mental health should ideally have been engaged with General Practitioners and other primary care providers in terms of their usual mental health service provision; with effective professional linkages through their own system’s referral processes (e.g., divisions) and other primary health care services. Such collaborations can then address the following issues:

- Disaster mental health roles involving engagement with GPs and other primary care providers for PPRR and specifically to facilitate two-way consultation and communication processes.
- Mental health can provide “Just-in-time” education and training in emergency mental health response (e.g., Psychological First Aid; assessment and basic management of bereavement and grief; assessment and basic management of trauma reactions, e.g., ACPMH guidance on PTSD for GPs); health fears and their management; drug and alcohol problems; health behaviours; injury, infection control, and their psychosocial aspects.
- Brief guidelines and resources for GP’s on Post disaster health and mental health effects, assessment, strategies to manage and referral pathways, are likely to be needed, and guidelines for those working in other primary care levels, may also require such capacity building. These include referral processes to Allied Health Psychological Services.
- Self care and advice, professional support for GP’s themselves, and their families
- Ongoing collaborative linkages to obtain feedback on new or emerging health problems, (post disaster) plus GP contributions, successes, problems, ongoing roles for future planning such as “lessons learned” from primary care.
- Collaboration and consultative links with primary care more broadly to support management and if necessary referral, for instance Community Mental Health.
**Mental Health Care Systems**

Mental health care systems need to be identified and their capacity to contribute to the mental health aspects of PPRR in All Hazard frameworks needs to be developed. In addition planning needs to encompass links with other providers, including the different elements of the health care system, and more broadly, e.g. welfare; and to participate in health and other preparedness planning and response deployment. There are also needs for “business continuity” strategies for mental health care systems, the necessary education and training to build capacity, and “looking after” the wellbeing of mental health care workers.

**Disaster Capability**

Disaster capability for response, for surge and sustainability and for management of mental health casualties and consequences needs to be developed through:

- **Education and training** to provide mental health workforce response capacity from basic (PFA and support Level 1, through to general mental health response assessment and management (Level 2) to skilled specialist intervention and leadership (Level 3)

- **Response capability** through emergency and aftermath including through outreach, assessment and management, and care provision of those whose mental health has been affected by the disaster.

- **Infrastructure** for response such as documentation and communication systems, workforce identification and mobilisation capacity; while sustaining regular / usual functioning; information, communication, access to resources needed and logistic support, and relevant infrastructure.

- **Consultation and Partnerships** for effective action with health, at levels including, public health, emergency, hospital and clinical services, primary care, community; other agencies as appropriate with recovery programs e.g. NGO’s, welfare etc

- **Referral pathways** and protocols

- **Links with other mental health providers** e.g. private sector Psychologists and Psychiatrists as other potential expert contributors

- **Leadership teams** to coordinate and manage, (in appropriately linked governance structures as required by the disaster PPRR jurisdictional leaders for this disaster) and to report on needs assessment, programs, progress and effectiveness and outcomes.
• **Resources** including financial, human, logistic and other that can support a mental health disaster response capability

• **Surge** and sustainability plans

• **Strategies** to “look after” the health and mental health of the mental health workforce

• **Evaluation**, review, research, and lessons for future disaster Prevention, Preparation, Response and Recovery.

• Mental health business continuity plans

Note that strategies presume mental health disaster capability is a component of mental health systems in terms of management and implementation, and not delivered through an independent, separate system. This is in line with Australian strategies for health disaster management more broadly, and is seen as contributing to enhancing the basic service capacity and capability of health and other systems. Response will ideally engage other professionals and systems, including logistics experts, to enhance capability, and will link to other relevant public and private sector health and mental health resources as needed, including those through general practice, primary care and specialised services. System based strategy is critical to optimise response and facilitate capacity to deal with mass casualty disasters, which may require collaboration across jurisdictions, and nationally.

**D. Enhancing Workforce Disaster Capability**

Addressing workforce development for disaster response in the emergency, recovery, for health, mental health or other sectors, needs to take into account the challenges such organisational systems face. These include: competition in recruitment for younger age groups; ageing workforce and potential loss of workforce through retirement; high demand of current workloads and priorities; difficulties of sustaining response to current and future baseline demands; increasing accountability requirements; workplace and workforce “stress loads”; mental health effects such as depression, or other disorders affecting functional capacity; multiple other time use, and demand, requirements, including those for professional and compulsory education and training programs. This list is not conclusive. On the other hand rewarding work in emergency and health sectors; as well as recovery and others; particularly with increases in funding and resource support; and availability of more effective interventions, have positive influences.
Disaster response capability needs to be built on; to enhance the capacity through existing systems, with related.

This outline will focus on these issues as they are relevant for health more broadly, and mental health specifically.

**Health Workforce**

All Hazard, Prevention, Preparation, Response and Recovery strategies have been developed and are represented in Health Plans, or Health Disaster Plans. These sit in the context of emergency response, and for the most part link with emergency plans at various jurisdictional levels. Health aspects of recovery are usually managed clinically with disaster-specific or existing clinical programs.

**Health Workforce: Health Capability Development**

This will include:

- **Prevention strategies**: workforce contribution to development of leadership; knowledge base and implementation of possible disaster prevention or mitigation strategies in partnership with relevant stakeholders, and communities.

- **Preparedness strategies**: this will involve
  - **Health leadership** in knowledge development; effective communication across and within the health sector and externally; identifying potential needs and response strategies across PPRR and planning for their development, building capacity of health systems
  - **Health workforce education, training and exercises**, for instance with Emergotrain or other exercise options; with aims of building, testing and developing workforce capability for emergency all hazard response, while encompassing utility in everyday functioning
  - **Response capability and mobilisation strategies** in relation to other key emergency and response agencies including governance, accountability, resource requirements (e.g. protective equipment, drugs, etc) and integration of these into potential for effective health response to diverse, and even potentially uncertain hazards
  - **Looking after workforce, looking after health businesses**, Developing workforce in terms of leadership, protection, enhancing capacity to respond to the emergency, to “step up” and to “step down”, and support others as needed; looking after business
in business continuity strategies for health systems and their members; and promoting organisational and workforce resilience at personal and system levels.
• **Response strategies**
  
  o **Response readiness and health workforce mobilisation**, briefing and deployment in response to, and in line with, emergency response more broadly, and in line with emergency response governance

  o **Health workforce leadership and management** throughout mobilisation, briefing and management of response capacity, safety, changing need; workforce protection (e.g. tours of duty, tasks), step up / step down procedures; and management through emergency to transition back to usual tasks, and in partnerships with other emergency response agencies as relevant

  o **Health workforce response**, addressing priority needs as assessed by appropriately skilled health professionals; decision making informed by best available scientific evidence and practice; triage, treatment and transport as indicated; health goals for disaster emergency informing response as planned, practiced and adapted to the specific emergency: and disaster principles of priority of life and survival for maximum numbers.

  o **Review and reporting** in terms of accountability, records (health) documentation and achievements, plus ongoing needs and follow-up required. This may be a preliminary overview as the emergency concludes and in the transition process, and is usually followed with formal organisational reviews and debriefs of the operation, its successes and difficulties, and lessons learned for future response.

• **Recovery Strategies**

  o **Leadership** is likely to shift to **General Health leadership** relevant to the health effects of the specific disaster, for instance infectious disease consequences, injuries and rehabilitation, ongoing intensive care, community health and general practitioners.

  o **Recovery organisational governance** is focused on welfare, rebuilding affected communities, public health issues related to disaster impacts and consequences, e.g. environmental contamination, population displacement; population recovery and renewal, and related practical, resource and social needs. Health is best represented by stakeholders at community levels, linked to local leadership and recovery management. General practitioners are likely to be very important in the health aspects of recovery.

  o **Mental health** has identified roles and responsibilities in collaboration with recovery agencies, and health sectors generally, as discussed below.
- Health consequences that are significant during the recovery require general and specific workforce knowledge and training, as well as recognition and support for implementation of relevant strategies. This includes: injuries, burns and their consequences; health care disruption and its consequences; and particularly with respect to disaster generated pathologies and their additional effects in terms of disruption of management of underlying chronic illnesses and disabilities.

**Mental Health Actions in relation to Health Work Force**

These include the following, with flexible adaptation to specific disasters and specific needs.

- Building knowledge, skills, resilience and psychosocial self-care strategies for the health workforce in terms of disasters broadly, specific disasters, and for health organisations.
- Building psychosocial understanding and capacity for management of emergency need and distress; enhancing the disaster-related mental health knowledge and skill broadly and integrated capacity to manage distress and other behaviours; including skills such as Psychological First Aid.
- Developing collaboration with health leaders and systems to prepare for disaster response, particularly those disasters which are likely to have significant psychosocial impacts and mental health consequences for health workers, (e.g. SARS), so that support systems can be in place and utilised effectively.
- Building knowledge and trust about mental health including what support / services can be offered to health workers, health systems, and those affected by disaster, sources of assistance, and when, where and how to seek advice for those affected and for the workers themselves, if required.
- Providing information on resilience, self-care and positive health and mental health strategies.
Mental Health Workforce Capability Development

These chiefly reflect strategies as above but take into account the specific challenges to Mental Health workers, e.g. burden of human suffering, identification with those affected, supervisor service load issues or vicarious traumatisation.

This will include:

- **Prevention strategies**: mental health leadership and workforce contribution to disaster All Hazard prevention, for instance through knowledge, information, education and community engagement; through involvement in risk management; as well as promoting and facilitating community contribution to possible prevention, preparedness and resilience

- **Preparedness strategies**. Mental health engagement is critical and requires:
  - Mental health leadership and engagement in disaster planning generally, and specifically development of Mental Health Preparedness Plans in line with WHO recommendations and in collaboration with relevant agencies.
  - Mental health workforce preparedness for disaster response through education and training of the mental health workforce across public and private sectors, and as relevant to levels of potential responsibility. This should include training as agreed by national consensus in Australia, 3 levels of mental health education and training, addressing knowledge, skills and competencies as follows:
    - **Level 1. Psychological First Aid, Personal Support** and related general support and triage.
    - **Level 2. General mental health assessment and intervention** with development of knowledge and skills to manage disaster mental health consequences and ongoing mental health needs, and to refer for more intensive and expert levels of assessment and management, should these be required. This would include strategies such as Skills for Psychological Recovery (SPR) and other interventions as appropriate to need.
    - **Level 3. Specialised assessment and intervention** skills and knowledge to address disaster pathologies, comorbidities, and severe mental health consequences of disasters with relevant interventions including psychological, pharmacological and other, as indicated. This includes, but is not limited to, specialised CBT programs for trauma pathologies such as PTSD.
    - **Management of loss and grief in disaster contexts**
    - **Children, adolescents and families** and their specific mental health needs
vi. Populations with special needs and their mental health needs (Chapter 8)
vii. Leadership education and training encompassing management requirements and strategies, consultation and other indicated needs, including communication

This education and training also encompasses, at all levels, understanding of

- Governance, roles, responsibility, and accountability requirements relevant to the disaster, and these in relationship to other responders’ roles and responsibilities.
- Disaster principles (not to harm, not to become a casualty etc)
- Mental health implications of specific hazards and circumstances
- Population level strategies and clinical service provisions and their interrelationship to achieve disaster mental health objectives for the specific disaster
- Strategy and intervention program implementation, monitoring and “return to normal” over time

Mental health workforce responders are likely to require “just-in-time” briefings or educational updating, to prepare for mobilisation and deployment

Mental health roles and responsibilities through preparedness involve identifying populations’ needs, strengths and vulnerabilities; looking after workforce, looking after business and systems, with business continuity and workforce self-care, and support strategies, including resilience enhancement

- **Response Strategies:** For the most part mental health roles in the emergency are aimed at facilitating health and survival by supporting core emergency and health agencies and affected populations; containing the emergency; and threat management. They may involve the following:
  - Mental health leadership. Support for and consultation with disaster response leaders, in terms of psychosocial and mental health aspects such as fear management, communication, dealing with uncertainty, and containment. This requires leadership knowledge and skills regarding leadership issues; group, crowd and other behaviours, and their management in emergency and non-mental health settings
- **Mental health leadership** identifying preliminary needs assessment for emergency response, by mental health workforce; readiness, briefing and mobilisation of these workers as they are required
- **Mental health progressive needs assessment** to plan and put in place mental health systems of information and communication; outreach and follow-up of high risk; high need groups; guidance for transition and mental health recovery planning
- **Psychological First Aid and Triage** and general support by workers as deployed, for those affected, in terms of identified needs
- **Support** of health and emergency workforce though the emergency response and step-down and transition to previous roles, plus addressing needs and providing information for support in the future as required
- **Ensuring mental health documentation and accountability** requirements are addressed and support for step-down is provided for mental health workforce, with review and later operational debriefing and reporting

- **Recovery Strategies.** Mental health is likely to play a significant role in recovery in collaboration with a wide range of agencies, and community focused recovery strategies. Key issues include:
  - **Mental health leadership** roles in developing a Mental Health Recovery Plan, building on earlier preparedness and strategies identified but tailored to the specific disaster incident (see WHO-AIMS-E Australian adaptation, Appendix A). This should take into account needs assessment; optimising resources and focus; and targeting programs to those with highest risk, highest need, across the lifespan, i.e. including children, adolescents, families; older people and specific requirements; and strategies for more vulnerable groups. **Mental Health Recovery Plans** should include population / public health strategies; and clinical programs for early intervention for those affected by the disaster; and treatment and ongoing or renewed management of those with chronic illnesses or ongoing disaster mental health consequences
  - **Mental health management and leadership** of mental health recovery program should ensure its responsiveness to identified priority needs as far as is possible. It should establish its involvement in collaborative governance of recovery programs, for instance in consultative roles. It should ensure that resources, including funding, are available and prioritised appropriately; that the response is integrated with health system aspects of recovery, for instance inpatient programs as needed; for ongoing disaster-affected persons with welfare and recovery centres in “one-stop-
shops” or similar models; systematic outreach and follow-up if this is required; primary care in linkages with general practitioners, and other providers such as community health workers.

- **Mental health responders** providing services should have knowledge, skills and competencies for their roles at relevant levels, including assessment, management and consultation or referral as needed. They should have further education and training or updating knowledge and skills programs if required. They should be supported by supervision at relevant clinical levels and access to discussion and advice regarding clinical issues. These processes aim to optimise response, support workers and enhance learning. Knowledge and skills for specific roles should be available, particularly for those working with children, including the significance of developmental issues. These issues are dealt with in detail in the relevant sections and chapters.

- **Flexible and practical mental health programs** will aim to optimise effective recovery using existing resources and additional disaster funding provisions; and aim to achieve realistic goals of service delivery. This needs to take into account the extent of need, availability of resources, program uptake and the multiple priorities that may create high demand. Workers need support in decision-making for determining priorities of need, and where and when interventions are most likely to be beneficial. Options for engagement with or referral to other providers are important components, and core access pathways should be mapped.

- **Multiple mental health options in the recovery portfolio** need to be described, and communicated, including what they offer, at what level, and how they can be accessed. These can include guidance from trusted sources (evidence informed); self-care strategies; web-based intervention programs; information sources; access to clinical psychologists and allied health workers through GP referral if relevant; and other appropriate mental health providers. Health workers can also themselves utilise such resources, but should understand, as with all service systems, what they can offer, their strengths and limitations.

- **Mental health accountabilities**, include documentation of those assessed, findings, interventions and outcomes. These should also include risk factors addressed, and strengths-focused findings and actions.

- **Mental health Disaster Recovery Programs** should more broadly aim to promote hope, positive expectancies, and resilience, as well as facilitate treatment and recovery. Suffering and problems associated with the exposure or the possible need
for care should also be recognised, and those with need, should be linked into public or private sector programs as appropriate.

- **Operational review** should take place initially to identify needs and to shape response, as well as for lessons for early response. Recovery program evaluation should be carried out systematically after the formal program transitions to usual care or care completion, or after 6 or 12 months. However it is essential to also provide for more lasting disaster mental health consequences. Evaluation should range from population to clinical sectors, and the range of program strategies. This is well exemplified in a number of recent initiatives: Neria et al (2006) post 9/11; Kessler et al and Norris et al post Hurricane Katrina (2008 & 2009). **Reporting is critical to build knowledge about what worked in real disaster contexts.**

- **Looking after mental health workforce and mental health business** are important components of response and recovery. These require:
  - Workforce education and training to build resilience, and to support, mobilise and continue this through and post recovery; clinical supervision; access to mental health support or referral including EAP or other provisions.
  - Positive structures need to be put in place for “looking after” mental health workforce in such contexts.
  - Mental health business continuity strategies to keep services functioning and renew these post disaster with review findings to progress organisational development.
  - Specific support and assistance for people with pre-existing mental illnesses

- **Research, including surveillance and monitoring** of mental health need and response, could contribute to better understanding of this field and the potential enhancement of real world outcomes. Research is needed to determine and test a range of intervention strategies

- **Mental health in other systems and organisations.** Ideally mental health expertise should contribute to the support of organisations, leadership and return to functioning through strategies for occupational mental health and safety; consultancy; and additional disaster preparedness and response psychosocial development at organisation levels.

**Disaster Capability and Real Worlds**

“Real world” demand, workplace limitations, unpredictability of hazards and human and social factors mean that many of the features outlined above represent possible ideals. These should
inform broad principles and templates, adapted flexibly for the specific disaster, the specific needs, and the resources that can be optimally mobilised. Findings from multiple disasters indicate that people and their leaders act to respond at the highest level, well beyond any baseline-assessed capacity. They surpass, usually in unique, flexible and optimal ways. This is also true for health and mental health response. Such spontaneous strength and capability, courage and resourcefulness, needs to be valued and supported, and celebrated as some of the best of human endeavour.
References


Chapter 8 – Populations and Diverse Needs

Planning for and responding to different hazards requires recognition that some populations and some individuals will have different needs, different impacts and consequences, and these may require specific strategies through Prevention, Preparation, Response and Recovery.

Aims

To identify, describe and provide guidance on the specific needs of different populations or people who may be more vulnerable to adverse disaster impacts; and to provide information to inform management. While different individuals and populations may have very diverse needs, many will also have considerable strengths. Several populations or groups will be described below. However this outline does not presume to cover every possible problem or vulnerability, but rather will identify key principles that should be applied flexibly, alongside assessment and monitoring of need, and with positive expectations and responsiveness to need. Key principles to be considered include:

i. Background or predisaster factors such as social or economic disadvantage, poor resources or access to resources; ongoing major problems affecting the population such as conflict, political instability or the like.

ii. Populations or groups who may suffer alienation, social exclusion, marginalisation or the like, within the overall population

iii. People who are disadvantaged in terms of communication, through language differences, for instance those who are culturally and linguistically diverse within the broader population, or those who lack access or are in some way handicapped in terms of communication, for various reasons

iv. People who are vulnerable through illness or disability, who may be more physically or psychologically vulnerable, or functionally impaired, and who may be more dependent on others, for instance older people.

v. People who may have been previously traumatised through violence, war, abuse, refugee status and so forth, and thus may be more vulnerable to the impacts of further traumatic exposures and losses.

Many of these variables will co-exist; other populations may have particular needs because of the roles they play, for instance Emergency responders such as police, fire, ambulance services; or healthcare workforce, and the various occupational groups within this. The issues for these professional groups will be addressed elsewhere.

The main groups that will be considered here include:

A. Culturally and linguistically diverse populations
B. Indigenous Populations
C. People with pre-existing disabilities or illnesses
D. People with pre-existing mental illnesses
E. Older people
F. Children, adolescents and families

It is recognised that children are vulnerable physically and developmentally and are likely to need special focus in disaster, as well as protection, care and support. Their experiences and needs will be dealt with separately. However key issues for consideration for children, adolescents and families will also be identified in this chapter.

Women are frequently identified as more vulnerable in disasters. The reasons for this are poorly understood, and could include different reporting of distress; responsibilities for the care of others, particularly dependent children; the nature of instruments that record disaster vulnerabilities, which may fail to take into account the ways in which men are impacted; the different ways in which men and women communicate about their feelings; different roles and social and cultural expectations; potentially a multitude of other factors.

Women may have different needs in preparing for, and during a disaster, including their biological needs, health care, physical strength, protection from victimisation, and responsibilities for others, such as infants and children, or elderly parents. This chapter does not categorise women as a vulnerable population but rather seeks to identify the specific needs and strengths they may bring to disaster in the All Hazard PPRR approach.

A. Culturally and linguistically diverse populations

Australia’s multicultural policy with a focus on harmony and inclusion provides some safety-net in terms of disaster response. Different cultural groups may be seen as minorities, or perceive themselves as marginalised within the dominant society. They may be further defined by ethnicity, religion, migrant or refugee status. Cultural practices and belief may be poorly understood by others, and level of adaptation or cultural expression may vary with country of origin. Nevertheless there may be difficulties engaging different cultural groups in disaster preparedness, as is the case for the broader society. Culturally diverse populations may have strong social bonds within their group, fewer external relationships, especially for those who are not engaged in the external worlds of work, schooling etc. Requirements for Prevention, Preparedness, Response and Recovery should consider issues such as:
1. Respectfully and collaboratively engaging community leaders from diverse cultural / ethnic populations to address the challenges of preparing for possible disasters and response should they occur, relating this to similar themes in the broader society.

2. Building culturally sensitive community strategies and ensuring language / translation resources for preparedness and response in the event of an emergency or disaster. Such preparedness may need to take into account the possibility of pre-existing social disadvantage, marginalisation and social exclusion.

3. Culturally informed communication as a specific strategy with appropriate language, information and advice regarding emergency needs; actions required for evacuations, survival, response; and ongoing communication processes, particularly where and when to get further information.

4. Culturally and linguistically diverse groups may have greater pre-disaster vulnerabilities related to prior exposure to trauma (e.g. from country of origin), trauma associated with refugee status; or migration and transition to the new culture, and perhaps stressors of racism and ethnic discrimination in the new society.

5. Perceptions and experience of the disaster may influence response, for example the positive role of Defence Forces in Australia in assisting with disaster responses may be misinterpreted as threatening from past experiences of military roles in earlier settings in countries of origin. Where the disaster, for instance a terrorist attack, is seen as ‘caused’ by or associated with a particular cultural group, for instance Muslim populations after 9/11, such groups may experience fear about threat and violence toward them as a specific group.

6. Developing plans for working in the recovery phase using culturally appropriate service models, bilingual mental health workers, interpreters, and linking to local support agencies, are likely to be helpful.

7. Specific programs linked to torture and trauma programs for refugees with such experiences need to be available if required.

There is an inadequate research base to fully inform understanding of such potential vulnerabilities. Many studies chiefly focused on USA populations with African American and Hispanic minorities, suggest cultural and related variables may influence: decision to evacuate; risk perception variability; attitudes and beliefs such as fatalism; prior trauma exposures (Hawkins et al 2009). However support from similar populations may be more readily available and helpful.
Post disaster factors that may increase vulnerabilities include the level of socioeconomic disadvantage or social exclusion; lack of access to resources; differences in help-seeking behaviours; discrimination (Hawkins et al 2009).

Cultural practices may not be able to be met and if not, may be a source of distress, for instance with requirements for autopsy of deceased persons, or burial, timing and processes to meet religious prescriptions.

Protective factors may also exist, or if disrupted, may lead to further distress. Strong social networks, extended families and religious and spiritual support are important. Collectivist cultures may handle the emergency and the aftermath in ways that appear likely to be protective in terms of the shared response, and the acceptance.

Studies post disaster have also demonstrated that use of indigenous healers, primary care initiatives in communities, and culturally developed strategies including rituals, mutual support and belief systems emphasising acceptance are important and potentially positive responses.

Post Traumatic Stress Disorder is seen by many cultural groups as a Western concept and one that does not reflect their experience and understanding. Silove (2000) has identified themes reflecting impacts of such experiences in many cultures. He describes these in terms of “five domains of stress and their adaptive systems” (p.342). These systems are: the safety system- the need to regain the sense of safety, survival in the face of threat; the attachment / bonding system, reactive to loss of attachment figures; the justice system with respect to rights and their abuse, with anger, sense of injustice; existential and meaning system – making meaning of experience in the context of life; identity / role system. These issues may be particularly relevant for those who have experienced violence or torture.

The main issue however is that people from diverse cultural backgrounds may not consider the Western model of PSTD as applying to their experience and may interpret it differently. They may also see value in different responses to such experience or suffering, including healing strategies and cultural rituals, rather than Western therapy, such as Trauma Focused CBT.

Ensuring the availability of culturally and linguistically relevant recovery strategies, and building language-based information resources and assistance, are critical to addressing diverse needs. Including those of different cultures is important, and within these populations, sensitivity to spiritual/religious contributions; opportunities for faith-based support; and recognition of potential
for specific strategies for men, for women and for children because of different cultural influences for these sections of the population, can further inform recovery programs.
**Mental Health Implications**

1. Engaging culturally and linguistically diverse groups in preparation and planning to deal with disasters.

2. Developing communication strategies in appropriate language and with cultural sensitivities, and through channels that are utilised by different cultural / ethnic populations including print, internet/web, radio/SBS, and other media as required.

3. Developing risk communication strategies with local leaders so that populations understand and receive warnings about any disaster, and are informed about how they can best respond, and other emergency response issues such as the roles of emergency services.

4. Working with schools, and other institutions, to support the inclusion of cultural and language strategies in disaster preparedness and response, including for instance evacuation strategies.

5. Facilitating family emergency plans as a helpful strategy, in partnership with cultural community leaders.

6. Providing relevant information through the emergency in culturally and linguistically appropriate forms and through readily accessed channels.

7. Assisting specific diverse cultural / ethnic groups who may be affected and developing a recovery plan which addresses these needs, with language resources, access, and culturally competent mental health services.

8. Providing mental health population and clinical programs, assessment and intervention in culturally competent ways such as the following, but in line with the clinical needs of those affected.
   a) Population level, culturally and linguistically competent mental health strategies such as information and communication, call centres, outreach, self-care advice, enhancing resilience, and population / local group-driven recovery strategies.
   b) Clinical programs that are culturally and linguistically competent, to provide assessment and intervention informed by resources such as
      i) Level I Psychological First Aid
      ii) Skills for Psychological Recovery
      iii) Specialised mental health interventions for trauma and other syndromes, disaster related disorders that may have developed including depression, PTSD and so forth
      iv) Access to specialised in-depth assessment and intervention for those with complex trauma, prolonged grief, somatisation and other problems
      v) Assessment and renewal of disrupted care for those with ongoing and chronic mental health problems or mental illnesses.
International responses may require understanding of and response that is culturally competent and linguistically appropriate. This should only take place in the framework of agreed and shared approaches, if and with the invitation of the country involved, and as agreed by the Australian Government agencies with responsibilities in this field, such as DFAT (Department of Foreign Affairs and Trade). Australian Medical Assistance Teams (AUSMAT), or other aid workers may be challenged in these circumstances, but can be briefed, or supported by working in partnership with local groups and interpreters for language and cultural issues, and can be backed by mental health consultation if required.

Key points to be taken into account

Culturally and linguistically diverse communities may be:

- Influenced by specific beliefs about disasters
- Marginalised, socially and economically disadvantaged or excluded
- Affected by prior trauma exposures and losses
- Collectivist in social terms
- Closely linked to their communities, social networks, and extended families
- Influenced by diverse religious and spiritual themes
- Affected by discrimination, alienation and poorer access to information and communication available to dominant cultural groups

Culturally and linguistically diverse peoples may be resilient and competent through capacities built through experience, mutual support and cultural strengths.
B. Indigenous populations

Indigenous populations in Australia and other countries have experienced, and continue to experience, more adversity in terms on socio-economic disadvantage, lower levels of education, poorer health in the majority of health domains; and high rates of traumatic exposure, premature deaths, loss and grief, and greater levels of disability. Several researchers have made suggestions about incorporating aboriginal knowledge into disaster management, particularly in terms of natural disasters and indigenous understanding, for instance Papua New Guinea (Mercer et al, 2009) and in a number of other nations (Shaw et al, 2009).

Other Australian reports acknowledge the importance of incorporating indigenous issues in emergency management and disaster recovery. Ellemor (2005) notes that at the time of her writing there was a move towards engaging local communities. She suggests that there be a focus on “local understandings of risk, local knowledge of hazards and coping strategies is critical for the development of safer, sustainable communities” (p.1). It is also vital to understand and work with local capacities. The vulnerability of both remote and urban populations needs to be taken into account. She also highlights the role of these issues for institutions such as those involved in Emergency Management. Queensland has developed a major resource as part of their Emergency Management strategy to focus on indigenous aspects of disaster (A Guide to Disaster Risk Management in Queensland Aboriginal and Torres Strait Islander Communities 2004). This addresses potential disaster risks and their possible effects on people and their communities, how to engage with leaders to address the severity of impacts that may occur. There are suggested strategies to reduce risk of disaster and harm through Prevention, Preparation, Response and Recovery. The Council of Australian Governments (COAG) report on natural disaster mitigation and support programs for remote northern communities of indigenous people, highlights the need for any such initiatives to take into account the disadvantage, isolation, and to take place in partnership with communities, with cultural sensitivity.
Mental Health Implications

1. Working with indigenous communities to seek their views and understandings about disasters, risk and mitigation, and engaging them to develop mitigation and to use cultural knowledge to protect and deal with disasters, especially natural disasters.

2. Planning culturally appropriate disaster response, with leadership from indigenous communities; building on and further developing capacity to deal with any likely disaster through community engagement, which recognises and respects culture and strengths.

3. Assessing likely mental health issues that may arise and working with Aboriginal Community-controlled health workers or liaison officers to ensure there are appropriate resources to deal with mental health or social and emotional well-being issues, should the disaster impact to have the potential to increase morbidity.

4. Planning with the community to ensure that practical resources will be available for community needs and for families, and supporting connectedness and cultural knowledge and practice. This involves developing a culturally sensitive response and recovery strategy which recognises strengths but also the vulnerabilities related to disadvantage and ill health, as well as disaster effects.

5. Developing information and communication about social and emotional wellbeing issues and care, especially those resulting from the disaster exposures.

6. Developing disaster mental health programs in partnership with indigenous communities, to take into account:
   a. Population level strategies with the community for information, communication and support, plus outreach in culturally sensitive ways and in partnership with community members, with a community advisory group or process, and leadership.
   b. Clinical programs which utilise assessment and models of care that recognise and understand vulnerabilities and strengths, and that address cultural and individual experience of trauma and loss, as well as disaster. These also need to recognise and address existing health and mental health problems and needs, and the extent of prior trauma and loss affecting Australian indigenous populations.

7. Planning and implementing any mental health response and recovery plans that are informed by concepts of social and emotional wellbeing, and healing programs that have been found to be effective; as well as other cultural requirements. These should ideally be provided by Aboriginal clinicians and taking into account family, extended family and community.

8. Recognising that primary care programs, for instance through Aboriginal Community Controlled Health services, community health, general practitioners, and the like, are a core part of any response to disaster health consequences, and the particular physical and mental health vulnerabilities that may be aggravated, or when care is disrupted, or stressor effects, that need to be taken into account.

Disasters may provide an opportunity to build mental health social and emotional wellbeing capacity.
Key points to take into account

Indigenous people may be vulnerable for the following reasons:

i. Pre-existing social, economic and health disadvantage
ii. Their isolation in remote communities, or in urban regions
iii. There has not been adequate recognition of, or research about, how disasters may affect them
iv. There may be profound and ongoing effects of prior trauma and loss, from colonial impacts, removal of children, loss of land, and multiple other sources; on which disaster effects may be superimposed or may trigger.
v. Being seen as “vulnerable” may be associated with diminished sense of efficacy, or as failing to recognise their capacities
vi. Lesser access to resources

Indigenous people may also and have shown themselves to be resilient, particularly because of their experience and understanding of the environment and its cycles, as with natural disasters; because of their strengths built through dealing with adversity; their connectedness with one another; and their cultural understandings.

C. People with disabilities

People with disabilities may be more likely to die in a disaster, may be prevented from responding to warning by inability to act or lack of access, may be affected in the emergency by the limitations to their functional capacities, or their lack of mobility, or their isolation; and may not have ready access to assistance for many needs including mental health. Stough (2009) has carried out a detailed review of current research that is relevant. She reports that, in general, people with disabilities are not involved in disaster preparation and planning, and their needs may not be accounted for. A focused initiative after Hurricane Katrina, (SNAKE: Special Needs Assessment for Katrina Evacuees), was commissioned by the US National Organisation on Disability. Further research supported the unmet needs of different disability groups, including people with mobility impairments who may not be able to escape the threat or evacuate or prepare themselves; people with sensory impairments such as visually disabled and deaf persons where there may not be facilities for interpreters or translation of needed information; people with cognitive disabilities where there were findings of ongoing mental health effects; and those with psychiatric disabilities (these needs will be discussed separately). Stough concluded that most of these groups have unequal access to information about possible disasters or warnings about their likely occurrence even when close; that they may not be well looked after in the aftermath and may be less able to search for and access needed services, to obtain employment, or to “recover”, and that these issues contributed to the depression they
reported. There was little research, apart from that with people with mental illnesses, to indicate mental health effects except with pre-existing mental illnesses. Stough’s review does not specifically deal with disruption of care for those with chronic physical illnesses and their possible health and mental health consequences.

This paper emphasised that people other than those disabled were also affected, for instance carers and family members who would not evacuate or seek safety because of their need to stay with the disabled person. This included institutional staff. However it appears that family and carers were also primary sources of support that helped people to recover.

The spectrum of disability in Australia is extensive. It should be noted that significant numbers of people of culturally and linguistically diverse backgrounds, are also disabled, and there are high rates of disability in indigenous and older populations.

People with disabilities may be variously affected in terms of needs for equipment, devices or assistance, or capacities and incapacities of function. They may be well able to look after their own needs – for instance spectacles, hearing aids, but find difficulties if these are destroyed in the disaster. Serious disabilities may be more extensive and limiting. Intellectual impairments and disabilities may interfere with capacity to respond.

Mobility and body system impairments such as those requiring ongoing home or hospital care, wheelchairs, breathing apparatus, and continuing care may be most affected by disaster, as exemplified by descriptions of disabled people’s experiences in New Orleans following Hurricane Katrina.

Australian Studies (AIHW 2009) describe the prevalence of, and difficulties associated with, multiple disabilities. People who have multiple disabilities are particularly vulnerable and may need assistance and care in the event of a disaster.
Mental Health Implications

1. Engaging with disability organisations for preparation and planning to deal with disaster.

2. Developing communication and information strategies in partnership with these organisations re: interventions that encompass their needs for preparedness, warning and response, and for recovery, and that are able to be accessed by them.

3. Providing risk communication that takes into account the needs of different disability groups and potential for response to increasing risk and imminent threat, and effective and feasible strategies that can be advised for their protection and safety, e.g. leaving early with assistance, staying and protection in the emergency, and strategies to sustain their care and survival in the aftermath.

4. Engaging and planning with NGOs, institutions, schools and workplaces so that their planning and response encompasses their disabled members and their needs, including those in response to disaster impacts. These should encompass but not be limited to resources, and support should be able to provide outreach to those disabled.

5. Facilitating family emergency plans, and planning with carers and systems, that will be able to assist them.

6. Developing and promoting accessible disaster mental health services to meet mental health needs that may arise from the effects of the disaster and that can encompass, and take into account different types of disability and are attuned to related functional impairments (e.g. mobility, vision, hearing etc) and additional issues as language, and culture. These should include:
   - Population / Public Mental health aspects with information and communication and outreach strategies, the latter being particularly important for those where mobility may be an issue. Self help, services and support and resources aspects are critical, for instance when disability support structures and aids are damaged in the disaster.
   - Clinically sensitive mental health services that take into account these existing disabilities and vulnerabilities, that are practical and useful, and can be delivered in accessible settings in partnership with other recovery providers if need be, and as consultation, or direct interventions. These should convey positive expectations, recognition of strengths and be informed by mental health assessment. This sets the basis for different potential levels and methods of intervention to address pathologies or risk. This should be informed by what is known of mental health aspects of need for such populations with their various disabilities. Specific management of post-disaster psychological morbidity such as depression and PTSD may need to be tuned both to identified need and sensitivities to disability of the individual, as well as adaptive strategies.

7. Providing linkages to primary and community care is critical, particularly through General Practitioners, community health and disability organisations. These should reflect a partnership and consultative approach to address impacts on physical as well as mental health and functional impacts, which may impact existing functional capacities.
**Key points to take into account**
These should reflect what is known, and priorities.

Disabled people may be vulnerable:

- More vulnerable to death, to failure to survive
- Inadequately prepared and planned for
- Marginalised and discriminated against and not “looked after”
- Not adequately provided for in the emergency and aftermath
- Socially, educationally and economically, further disadvantaged, or culturally or linguistically isolated
- Vulnerable through their functional impairments, associated trauma, or illness
- If children, particularly vulnerable
- When older, particularly vulnerable

Disabled people may also be resilient, as demonstrated in Stough's report, and competent, through their strengths built in dealing with and managing their disabilities.
D. People with pre-existing mental illnesses

While there has been extensive research on the mental health consequences of disaster, and recognition that a history of mental health problems may be associated with increased vulnerability for some, there has been a lesser focus on those with pre-existing mental illnesses. These issues have been dealt with in some studies, for instance Bromet et al (1982) investigated the effects of the Three Mile Island nuclear incident on people with severe mental illness compared to a matched control population and found no significant difference, with initial anxiety for both groups which settled over the follow-up assessments. Other studies of people with severe, disabling mental illnesses have also shown similar lack of impact, particularly when people were receiving institutional care, or were in intensive community treatment programs (reviewed by Stough 2009). However in all these instances there was no disruption of the continuity of treatment programs. Studies post 9/11 also showed no significant differences in morbidity amongst such patient groups compared to controls, or from baseline.

Other studies have considered populations with a range of mental health backgrounds, and with more direct exposures – for instance witnessing death, dead bodies, loss, destruction etc. North et al (2004) found PTSD was the most likely disorder to occur and that was three times more likely for those with pre-existing psychiatric disorder. PTSD was also likely to be the primary disaster related disorder in such circumstances, with comorbidity such as depression developing following this. Person and Fuller (2007) provide a valuable review of this field, emphasising the need for further research. They also recommend policy and planning to encompass the needs of this population.

Thus there is, for people with existing psychiatric disorders, evidence that there may be a greater risk of developing disorders such as PTSD, usually in circumstance of severe exposures, but this is not necessarily frequent or inevitable, even though risk is increased.

An Australian study (Taylor & Jenkins, 2004) reported on the psychological impact of terrorism on Australian hospital patients. They examined the effects of media coverage of 9/11 on 30 psychiatric and 26 matched medical and surgical patients. Distress was common, both self-reported and observed, and 29% (7 patients) with pre-existing psychoses became delusional in ways related to the event. Otherwise there was no significant different compared to the medical and surgical patients. Such responses have been observed clinically for other disasters, by the author.

The disruption of ongoing care, such as the provision of psychotropic medication, may lead to adverse consequences, as happened after Hurricanes Katrina and Rita, and associated possibility of relapse. One study post Katrina found that 22.9% of those with mental disorders who had used mental health services prior to the disaster reported a reduction or cessation of services. There was
also a failure to provide treatment for new onset disorders. Planning needs to address the issue of continuity of care, access to medications and follow-up. This is a critical component of forward planning for mental health services, as it is for physical health services.

### Mental Health Implications

1. Ensuring that **preparedness and planning take into account the potential vulnerability and needs for continuity of care for people with pre-existing mental illnesses, particularly those that are very disabling and severe.** Medication provision, potential exposures and the possible buffering effect for those with continuity of care, need to be taken into account.

2. Developing **information and communication strategies** that take into account how people with different psychiatric disorders may understand and respond to risk, and may be able to take protective or preparedness actions, such as evacuating for instance. Maguire et al (in submission) have demonstrated that many such patients may not readily access information sources such as the internet. Information and communication need to take into account warning, planning, emergency response and continuity of care, as well as recovery environments.

3. Engaging with community organisations broadly needs to encourage **support networks to assist people who may be psychiatrically vulnerable.** In addition engagement with consumer groups, carers, and mental health NGOs can assist in a positive preparation for and response to disaster. Education of communities and consumers can assist to this end.

4. Ensuring **families and carers** are involved in disaster planning and preparedness, with a focus on a family plan to manage everyday and disaster emergencies.

5. Developing and implementing **“business continuity” planning for mental health services,** including strategies for managing patients ongoing care needs through any emergency, including a disaster.

6. Planning that, in the event of disaster, a mental health program can be developed to take into account not only mental health needs as a result of the disaster but also those of people with pre-existing mental and physical illnesses for the physical and mental health impacts for these through both:
   - Direct effects of disaster – stressor exposures, injuries or other physical health problems
   - Effects of disruptions of treatment for physical and/or mental health problems
7. Putting in place mental health plans and services which include specific components addressing needs of those with pre-existing mental illnesses, including:
   - Population/Public mental health aspects such as information about what to do and services, outreach and self care initiatives. This should include specific follow-up of those supported in the community with chronic and disabling illnesses, and others more broadly
   - Mental health clinical programs providing for assessment and re-evaluation, continuity of care, as well as management of vulnerabilities associated with disaster exposures

8. Engaging primary care as a key component of preparation and response because of the roles of GPs in health care for physical and psychiatric illnesses, and in sustaining people with a range of potential health problems. In addition they provide links to counselling from clinical psychologists and allied health professionals. Other primary care agencies, such as community mental health, outreach teams, and NGO support agencies are further resources to assess and deal with health and mental health needs post-disaster.

**Key points to take into account**

People with pre-existing mental health problems or illnesses may be vulnerable through:

- Socio-economic, educational and other disadvantages
- Social isolation, lack of support networks
- Disabilities related to mental health or health which affect their functioning
- Pre-existing disorders, or traumatic experiences
- Disruptions to ongoing treatment and care, including medication or support services
- Severe exposures to disaster stressors in the emergency or with the aftermath, or physical health effects, or changed behaviours

People with pre-existing mental illnesses may also be resilient because of their experience of adapting to adversity and trauma; because of their support systems; and because they have hopeful and positive responses; or they have psychological defences or cognitive processes associated with their illnesses or which may protect from the stresses and outcomes of the emergency.
E. Older people

Older people are likely to have had more lifetime experience of adversities in general. These may be related to the years of their birth, their “generation” and the social and cultural contexts of their upbringing – for instance in the Australian context this may range from a tough rural experience through difficult to sustain livelihoods of drought and farming challenges; to post World War II baby boomers; depression economics, losses through life; war veterans, inequities for women, and many others. Older Australians in general demonstrate more happiness, or acceptance of life, lower levels of psychological distress, perhaps related to their survival to their current age as well as the nearer realities of death. Nevertheless despite such factors, which could contribute to their resilience in the face of disaster, they may be vulnerable in other ways. They are potentially more likely to be in institutional settings, nursing homes or supported aged care facilities; they may be more socially isolated, living alone, economically disadvantaged; they are more likely to have disabilities affecting their mobility, senses (vision and hearing) and potentially impaired functioning related to chronic physical illnesses, or cognitive impairments such as dementia. They may rely on practical support, assistance and care from partners, family members especially daughters, and non-government and government agencies.

Research has identified some of the potential impacts of disasters for older populations, including mental health. Cook and Elmore (2009) have reviewed some of these studies. They suggest that there are four sets of variables that may influence the effects of disasters with ageing populations. These were: lesser resources and disaster exposures which could heighten vulnerability; and “inoculation” related to their prior experiences and lesser burden of external responsibilities, that might add to their stress or challenge their capacity. By resources these researchers indicate that, they may have declining functional capacity, poorer health and lower socio-economic resource.

They reviewed studies covering a range of natural disasters and found the effects on mental health to be variable across different studies, and potentially dependent on “social, economic, cultural and historic factors” (p.248), as indicated by Norris et al 2002. In this context women are generally more vulnerable to disaster mental health consequences. Older people from culturally and linguistically diverse backgrounds may also be more vulnerable through, for instance, the re-awakening of earlier traumatic experiences. Personal losses and extensive physical destruction are suggested to be more likely to lead to lasting mental health consequences. Intensity of exposures, as well as lack of access to resources may, in such contexts, increase vulnerability in ageing populations. Other studies have
demonstrated the effects of mass disasters such as the Sichuan earthquake (Jia et al, 2010). Effects of medication disruptions for older people with chronic medical conditions may also be problematic (Tomio et al, 2010).

With respect to human-caused catastrophes such as terrorism, review of various studies including post 9/11, found that there was no indication of “consistent differential vulnerability related to age” (p.251). Disruption of care for existing physical illnesses, was however a problem. Similar equivocal findings occur for technological disasters (Cook and Elmore 2009).

These reviews identify the importance of preparedness and planning, including public education; identifying where older adults live, and how their needs may be met; engaging them and the institutions and services involved in their care and support with preparing strategies to manage their physical and mental health and wellbeing; building a resource base to meet their needs; protecting them from exploitation, abandonment or abuse; engaging their institutions in planning for response and recovery; recognising the diversity of older populations and working with their organisations to support those who are vulnerable at times of disaster; and developing policies and response to support and assist them (Cook and Elmore 2009), and fostering their resilience (Zeiss et al 2003).

There is some suggestion that older people may be more vulnerable to death in disaster (e.g. Hurricane Katrina); that they may be unwilling to evacuate their homes; and may be affected by lost personal reminders and resources of particular significance to their lives.

The spectrum of older people’s experience, vulnerabilities and strengths represents a diverse range of potential influences that will make it particularly important to assess more specifically the risks they face, the resilience that may shape their response. In addition to the above, there will be social variables such as unwillingness to see themselves as needing help, to seek it, to communicate problems and the wish to remain in control of their lives, competent and effective.
Mental Health Implications

1. Engaging with older people’s representatives, organisations, communities, carers and institutions to ensure planning and preparation strategies encompass their needs, recognising the diverse groups within older populations, from the frail to the fit; from the young old to the old old, and so forth; from diverse cultural, social and experiential backgrounds.

2. Identifying communication and information needs for relevant stakeholders, including advice on preparedness and planning, and potential issues for response and recovery communications. This needs to take into account what is feasible for older populations, time needed to influence decision making, and resources and process for institutions responsible for care.

3. Developing risk communication strategies that take into account the above aspects, but also do not underestimate the value of experience, wisdom and survival strategies for those older people who have dealt with many previous challenges in their lives.

4. Involving older peoples’ community groups, age oriented programs and particularly health and support services to look after their health and functioning through disasters and aftermath; and in protecting their mental health, particularly by mobilising both practical support and social connectedness with peers.

5. Working with families of older people to help them have a family plan that links in older people’s needs, and assisting the planning of older people themselves.

6. Developing and providing age appropriate, accessible disaster mental health services to address disaster generated mental health problems and linked health needs that encompass:
   - Clarifying chronic and new physical health problems and needs
   - Mental state and cognitive functioning
   - Depression, anxiety or PTSD either pre-existing or precipitated by the disaster experience
   - Personal functioning, health and wellbeing broadly including sleep, nutrition Management after review, with assessment and planning for chronic disorders, disrupted management of existing conditions, or new disorders, physical or psychiatric, needs to be put in place.
7. Basic mental health issues may be managed generally with support from specialised psychogeriatric consultation for complex and comorbid conditions.

8. Linking to primary care and General Practitioner services with mental health consultation are readily available and critical, particularly for outreach and supporting older people in the community.

Key points to take into account

These should reflect current knowledge, research findings and clinical experience.

Older people may be vulnerable in the following ways:

- They may lack socio-economic, practical resources and may rely on externally provided supports for their independence and effectiveness
- They may be socially isolated, or lack control over their lives, through institutionalisation
- They may experience physical impairments and disabilities, lack of mobility, visual and hearing losses and cognitive problems which make them functionally vulnerable
- They may lack communication and information or those resources that are available may not be appropriate in terms of content for preparedness, response and services for recovery
- They may not be adequately involved in preparedness and response strategies, or their institutions of care may not be able to provide adequate preparedness and response to deal with their dependence and protection needs
- They may be not seen as a priority in the disaster context, because of the extra resources they may require; or because they are perceived as helpless and their strengths are not recognised

Older people may be in some circumstances resilient through their strengths developed to deal with prior adversities, losses: through lack of “burdens” of responsibilities; through acceptance of life’s challenges and the life they have lived; their active community engagement and contributions (e.g. involvement, in volunteering, community organisations).
F. Children and their families

Children and adolescents, to a degree, may be particularly vulnerable to adverse mental health consequences. This will depend on many factors, central being their circumstance of family and disaster impacts.

Children are likely to be vulnerable if their families have been affected or die, if they are traumatised and have ongoing mental health effects and when family life is profoundly disrupted. The child’s personal exposure to trauma, loss, and dislocation may be the basis of mental health problems for the child. Such reactions of trauma, loss and grief are likely to reverberate throughout the family.

Other important factors also require attention. The child’s level of physical, psychological and social development may mean that the child is at greater risk of physical harm and health effects as has been recognised by paediatric guidelines for these circumstances. There are also the dependencies of younger children for parental care, for survival and protection from harm. The child’s understanding of what has happened, his or her capacity to be comforted, and the possibility that there is underlying vulnerability associated with earlier adverse experiences, all indicate the need for special focus.

Re-establishing safety and security, and return to rituals of support, in family life if this is possible, in schooling, and in communities, helps to provide some sense of security, in which the child can start to heal. Separation from parents at the time of the disaster can contribute to vulnerability. The child’s needs may not be obvious. Children may be very quiet, and their distress or problems may only surface later, as shown by McFarlane et al’s study of the children following Ash Wednesday fires (McFarlane et al, 1987). His 20-year follow-up of these children and the control population showed that most had been relatively resilient in terms of developing syndromes such as PTSD, but others had shown effects on life pathways (McFarlane et al, 2009). Another important study assessing school children’s reactions to Cyclone Larry in Queensland (McDermott 2007) showed that children who had thought “I could die” were more likely to develop PTSD and for some, this persisted as a serious problem over a significant period. They were more likely to be resilient if they had support – one friend in school settings to whom they could turn. Epidemiological studies after 9/11 found that psychological distress was high initially, but settled, although a proportion continued to have distress to the level of problems over time (Hoven et al, 2005).

Patterns of pathology may vary from externalising to internalising reactions and pathologies. Trauma syndromes, traumatic grief and anxiety disorders have all been described, chiefly for older children,
and management attempted for these. Phobic reactions and separation anxiety are frequent particularly in relation to storms and hurricanes, wind often triggering anxiety. Sleep difficulties, clinginess and regression can be one pattern; aggression, “don’t care”, acting out, another.

Planning for children’s needs is a key aspect of disaster All Hazard PPRR. Planning, Preparedness, need to: identify processes to protect and look after children through home, childcare, school settings and for family and child focused strategies, to identify, respond, assess and support children after disaster occurs. Response and Recovery should also be tuned to children’s disaster experience, safety, survival, reunion with family and provision of security, protection, comforting and care.

Some of the extensive resources available to address children’s mental health needs in relation to disaster and will be listed below.
Mental Health Implications

Children’s protection, possible needs and care should be a primary consideration in all disaster planning and response.

1. Preventing disasters from affecting children relates to a wide range of strategies from safe buildings and transport to vaccination; to recognising that what an adult may survive, a child may not. Protecting children at all levels should be an overarching theme.

2. Children can be involved, positively, in preparedness strategies such as demonstrated by Ronan and Johnston’s 4 Rs approach of a resilience strategy through school, with learning, family engagement and hazard reduction. Basic safety such as fire training in school is a good example of such capacity (e.g. “get down low and go go go”, etc). Depending on age and development, these approaches are likely to be helpful, particularly if presented positively as a shared family activity.

3. Psychological First Aid for children complements physical and practical strategies for survival and protection as the central goals, as well as management of physical injury / harm. For children it rests on 3 principles: Listen, Protect, Connect. Keeping children safe, preferably with family or other known adult, is central to response.
4. Transition to recovery and aftermath needs to link children into secure systems, needed care, provision of information, outreach and programs at all levels including specialised mental health care and follow-up. Programs include:

- Population level – communication, information and outreach addressing children’s and families’ needs and offering pathways for follow-up through primary care, schools or other settings.

- Clinical programs, which should also look after mental health needs of children experiencing injuries, e.g. in consultation liaison with paediatric services; hospital-based or community care; with GP linkages as children and families frequently present there; and special expertise may be required, so referral pathways need to be clear. These mental health clinical programs need to be available at various levels and settings, including public, private, and school-based programs.

5. Recovery requires identifying children who may be in need, because of exposure to traumatic stressors (life threat); loss of family member / parent with bereavement or possibly traumatic grief; other losses; dislocation from home, school, community; ongoing difficulties and triggers. Programs need to be developed in ways that are appropriate to a child’s development, address family issues; and are focused to risk or need. Programs may be, for instance, at 4 levels as suggested by Pynoos et al (2007). These would range from general, to recovery skills, to enhanced mental health services; to specialised programs.

6. Throughout, these approaches should be based on assessment that encompasses the child’s experience of disaster, response of the family, developmental levels, vulnerabilities and strengths, and developmental resilience or protective factors. Diagnosis of children’s difficulties needs to examine the spectrum of phenomena and the trajectories of functional impacts in shaping diagnostic and management formulations / plans.

7. Documentation, supervision and consultation with such clinical experts, are key issues, as well as monitoring of risk, resilience, progress and outcomes.
**Key points to take into account**

Children may be **vulnerable** and need specific attention because of:

1. Age, development
2. Prior experiences of trauma, loss, family or other adversities, or life disruption
3. Family experience of the disaster
4. The degree to which they personally experienced trauma, loss, injury etc, family or school disruption
5. Lack of support from family, peers or others
6. Their needs are not recognised, it is often thought that “they don’t understand”, “they are too young to know”, or “they won’t remember”.

Children may be **resilient** because of previous strengths and personal resources, family and other support, environments of efficacy, hope and optimism; or even their prior experience of mastering life’s challenges.

Throughout, family issues are central.

Children and their needs are also addressed elsewhere. Some useful resources for understanding children’s experiences of and needs in disasters are listed below:

- Red Cross USA: [http://www.redcross.org/disaster/masters/](http://www.redcross.org/disaster/masters/)
References

Theresia (Citra) Citraningtyas, Elspeth Macdonald, Raphael B. Disaster experience in the context of life: Perspectives five to six years after the 2003 Canberra Bushfire


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Appendix

Appendix A

Disaster Plans and Resources

New South Wales Mental Health Services Supporting Plan to NSW Healthplan (March 2011)

NSW Disaster Plan, or Displan (links to 2010 version, updated version due 2012).

NSW Ministry for Police and Emergency Services – District Plans:

Australian Government Disaster Response Plan (COMDISPLAN):

Template for personal emergency plan list from EMA:

Australian Red Cross rediplan including lists, charts and templates for household emergency planning:

NSW State Emergency Services (SES) Fact sheets and Community Safety Information:

WHO AIMS-E (Assessment Instrument for Mental Health Systems)
http://www.who.int/mental_health/evidence/AIMS_WHO_2_2.pdf

FAHCSIA Spontaneous Volunteer Management Resource Kit
Get an emergency kit checklist

Use this checklist to prepare your kit. If you need to keep an item elsewhere in your house make sure it’s somewhere handy and mark its location on your plan.

- sturdy container
- reflective tape or stickers
- two torches
- batteries
- globes
- battery-operated radio
- mobile phone battery
- phone charger
- old landline phone
- candles and matches/glow sticks
- three litres of water per person, per day
- three days’ food ready-to-go
- 14 days’ food to stay in your home

- camping stove or BBQ
- pocket knife
- pet food
- first aid kit
- medications
- soap
- razors
- deodorant
- sanitary items
- alcohol wipes
- antibacterial gel
- toilet paper
- tissues
- hairbrush
- comb

- toothbrush
- sunscreen
- change of clothes
- sturdy boots
- wide-brimmed hat
- gardening gloves
- backpack
- blankets/sleeping bag
- phone card
- money
- pack of cards
- pencils and paper
4. Developing and Implementing a BCM Plan

4.1 Incident Management Plan

The Incident Management Plan provides a detailed description of the procedures and responsibilities for managing incidents. It outlines how the organization will respond to incidents, including notification procedures, containment measures, and communication with stakeholders. The plan should be reviewed and updated regularly to ensure it remains effective and relevant.

4.2 Business Continuity Plan

The Business Continuity Plan outlines the specific actions to be taken in the event of a business disruption. It includes strategies for minimizing downtime and restoring operations as quickly as possible. The plan should be tested periodically to ensure its effectiveness.

4.3 Business Impact Analysis

The Business Impact Analysis assesses the impact of potential disruptions on the organization. It helps in prioritizing recovery efforts and allocating resources accordingly.

5. Exercising, Maintenance and Review

5.1 Exercising

Regular exercises are conducted to test and improve the BCM plan. These exercises simulate various scenarios to ensure that the plan is effective and that employees are prepared to respond appropriately.

5.2 Maintenance

The BCM plan is maintained and updated regularly to reflect changes in the organization’s operations and environment. This includes reviewing and updating the plan in line with industry best practices.

6. Embedding BCM in the Organization’s Culture

Embedding BCM within the organization’s culture involves integrating BCM into all aspects of the business. This includes training employees, developing standard operating procedures, and encouraging a culture of continuous improvement.

6.1 Assessing BCM Awareness and Training

Assessment of BCM awareness and training helps in identifying gaps and areas for improvement. This can be achieved through regular training sessions and evaluation of training effectiveness.

6.2 Developing BCM within the Organization’s Culture

Developing BCM within the organization’s culture involves integrating BCM processes into routine business operations. This ensures that BCM is not viewed as a separate activity but as an integral part of daily business activities.

6.3 Monitoring Cultural Change

Monitoring cultural change is crucial to ensure that BCM practices are integrated into the organization’s culture. This involves tracking improvements and changes over time to identify areas that require further attention.

The full Good Practice Guidelines are available to download free of charge from http://www.thebci.org.
Business Continuity Management

Business Continuity Management is an holistic management process that identifies potential impacts that threaten an organisation and provides a framework for building resilience and the capability to an effective response that addresses the interests of all key stakeholders, reputation, brand and value creating activities.

I am often asked what single piece of advice I can recommend that would be most helpful to the business community. My answer is a simple but effective business continuity plan that is regularly reviewed and tested. [Lisa Manningham-Buller, Director General, CBI UK]

Layout of the Guidelines


Though the model demonstrates how the stages conceptually together, in practice the experienced practitioners will not necessarily follow this progression strictly. However, progress should always be measured against the whole life cycle and across the whole organisation.

1. BCM Policy and Programme Management

The BCM Policy of an organisation provides the framework around which the BCM capability is designed and built. It is a documented statement of the organisation's executive of the level of importance that places on BCM. It describes the scope of the programme and assigns responsibilities.

An effective BCM programme will involve the participation of various management, operations, administrative and technical disciplines that need to be co-ordinated throughout. It is also important that procedures such as those outlined in these Guidelines can be adapted to fit within the framework contained in the organisation's BCM Policy document.

2. Understanding the organisation

It is able to develop and review the Business Continuity Management programme you will need to understand your organisation and the environment in which it operates and processes are likely to occur.

Some questions need to be asked:
- What are the objectives?
- What are the dependencies?
- What are the relationships of the organisation?
- Who are involved in the business and externally in the delivery of the business?
- What are the external impacts on the business?

2.1 Business Impact Assessment

The Business Impact Assessment is the vehicle which allows the BCM capability to be developed. It describes the organisation and how the business operation of a business continuity strategy for a specific department or area of the business. It is therefore a tool that provides the data required to enable a workable business continuity strategy to be developed.

2.2 Risk Assessment

In the context of BCM, a Risk Assessment is the probability and impact of a specific event. The risk can cause a business interruption and can result in the loss of information or the loss of the ability of the organisation to function. It therefore provides the data required to enable a workable business strategy to be developed.

2.3 Determining BC Strategies

The sector is about determining and selecting business continuity strategies to be used in order to support the organisation's recovery process and processes recovery objectives.

Business Continuity Management: Strategies contain:
- The selection of alternative operating methods to be used if the original methods cannot be used
- The selection of alternative operating methods to be used if the original methods cannot be used
- The selection of alternative operating methods to be used if the original methods cannot be used
- The selection of alternative operating methods to be used if the original methods cannot be used
- The selection of alternative operating methods to be used if the original methods cannot be used

3.1 Corporate strategy

Key decisions at corporate level are:
- Recovery Time Objective for each activity (based on the MTPD)
- Selection of alternative facilities and data storage

3.2 Activity level strategy

At activity level the complexity of interdependencies on services, business processes, data and technologies needs to be analysed and appropriate tactics are chosen to address the needs of:
- People, workforce, jobs and knowledge
- People
- Supporting technologies
- Information
- Equipment and supplies
- Stakeholder pattern and connections.

The organisation should also:
- Understand the role of local emergency responders
- Remove the likelihood of specific physical threats
- Take appropriate impact mitigation measures.

3.3 Resource level coordination

This step consolidates the resource requirements of the various business activities throughout the organisation and ensures they are fulfilled. BCM is in order within the required timeline.
Appendix B

WHO AIMS-E Planning Template – Australian Adaptation (2008)

The World Health Organisation has developed a planning template linked to Mental Health Service planning, with a specific focus on emergency response. A brief summary template is included in the full version of this Template, available from the Disaster Response and Resilience Research Group at UWS. An adapted version, which better reflects the experiences of developed countries, such as Australia, is outlined in Part B. This latter version also addresses possible roles of State or Territory-based services outside Australia, as occurred with the South East Asian Tsunami and Java Earthquake.

WHO AIMS-E

World Health Organisation Assessment Instrument for Mental Health Systems – Emergencies

This template has two key components: the disaster preparation plan and the disaster response plan. The former is general preparedness and training and the latter is the plan put in place when a disaster has occurred, and formulated to respond to the specific incident.

Attachment A contains a ‘Response Grid’ allowing a determination as to whether the specific standard, action or contingency of the WHO AIMS-E (outlined below) have currently been established in a given jurisdiction. Part A contains the items from the current AIMS-E modified to allow response from a Regional, State or Territory perspective. Part B is a locally adapted version. The response sets for both only allow for a broad determination (yes/no) at this stage. Not all the areas noted will readily lend themselves to this response set, so additional space is provided for specific comments / qualifications.

WHO AIMS-E covers:

E1 Disaster Mental Health Plan and Coordination

E1.1 Disaster preparedness plan for mental health.

E1.2 Contents of disaster preparedness plan include:

− Disaster psychosocial mental health coordination body;
− Roles of different facilities, organisations and professionals;
− Specific psychological and social interventions for emergency phase;
− Specific psychological and social interventions for longer term;
− Framework for training and supervision.

E1.3 National or regional level Documentation of Disaster Preparedness:

− Guidelines or manuals for mental health psychological intervention;
− Guidelines or manuals for psychological intervention for other health professions or health professionals;
− Guidelines for social intervention;
− Draft documents for information for public on responses / problems / coping / services;
− Documented plans for family reunion and tracing;
− Policy for protection of children, for schooling, recreation for them;
− Media guidelines to brief media on specific threats and risk communication.

E1.4 Facilities – level disaster preparation plans for mental health facilities.

**E1.5 Disaster Response Plan for Mental Health.**

E1.6 Contents of disaster response plan including:

− Needs assessment;
− Specific psychological and social interventions for acute emergency;
− Specific psychological and social interventions post emergency;
− Specification of roles of different facilities, organisations and professionals, and other human resources;
− Specification of training, supervision and quality improvement;
− Timeframes and feedback.

E1.7 Specification of national or regional disaster psychosocial / mental health coordination body.

− This has pre-disaster and disaster response roles;
− It includes government representation and gives advice to government;
− It coordinates public awareness campaigns;
− Monitoring and quality of services.

E1.8 Composition of disaster psychological / mental health coordination body includes:

− Government, non-government, professional organisations, education etc.

**E2 Mental Health in Primary Care**

E2.1 Training and refresher training for primary care doctors in trauma and loss related mental health problems.

E2.2 Training and refresher training for primary care nurses in trauma and loss related mental health problems.

E2.3 Training and refresher training for other primary health care workers in trauma and loss related mental health problems.

E2.4 Assessment and treatment protocols for trauma and loss in primary care.
E3 Human Resources
E3.1 Staff in mental health services in each professional group trained in trauma and loss related mental health problems.

E3.2 Refresher training for staff in trauma and loss related mental health problems.

E3.3 National training and supervision capacity.

E3.4 Collaboration of non-government organisations with governments in disaster mental health.

E4 Public Education and Links to Other Sectors
E4.1 Legislative and financial support for housing etc for disaster survivors.

E4.2 Mental health / psychosocial programs with or in collaboration with health and non-health agencies / departments of governments.

E4.3 Mental health / psychosocial programs in collaboration with key community human resources to address mental health needs of survivors.

E4.4 Promotion and prevention activities in primary and secondary schools to people after trauma loss.

E5 Monitoring and Research
E5.1 Mental health information systems as basis and reporting on disaster related treatment.

E5.2 Percentage of mental health research that is relevant to disaster.

This document is also strongly supported by the Sphere Project Humanitarian Charter and Minimum Standards in Disaster Response (WHO web address www.sphereproject.org). For the mental health standard of response, refer to Chapter 5: Minimum Standards in Health Services (p249), and specifically Control of Non-Communicable Disease, Standard 3: Mental and Social Aspects of Health (p291). It should be noted that WHO concludes that psychological interventions may also have social effects, and that social interventions may have psychological effects. Recent consensus publication provides further information on these broad elements of response (see Attachment B, Van Ommeren et al, 2005, WHO 2005) and others are in preparation.
**Australian Mental Health Disaster Planning**

Australia is a federation of states with a range of government interactions and models for disaster response across the nation. Most states and territories have mental health responses in place and these have been progressively developed to follow common directions under the coordination procedures of the National Mental Health Disaster Response Committee (NMHDRC), and following need, such as that after Bali and more recently the South East Asian Tsunami. The coordinated response is reported nationally through two coordinating bodies, the Australian Health Protection Committee (AHPC) and the National Mental Health Working Group (NMHWG). The NMHDRC has responded to coordinate national response for instance with the Tsunami and to support other national responses.

Discussions within the NMHDRC and particularly State and Territory directors have concurred that the general template as above is useful but would need to fit with the different state structures and be modified to some degree accordingly.

**Mental Health Preparedness Plan: Australian Version**

This plan would include the following template/guidelines for States and Territories.

A **State and Territory Preparedness**

A.1 **Coordinating body** of key stakeholders from Government, Non-Government, Community and Primary Care sector with coordinating role:

- Executive mental health management for building resource and response base including education and training, protocols, human resources development and others;
- Identifying and developing training for mental health providers from generalist and specialist levels and care, mental health training for non mental health providers from health, social service, responders, primary care, non government and other workers. Specific identification of roles and responsibilities;
- Participating in disaster response exercises and further building capacity;
- Mobilisation capacity, lines of response and responsibility in emergency and in intermediate and longer term, including cascades of response proportional to need.

A.2 **Developing specialist mental health teams** to provide consultation, advise to leaders, media and public, and to supervise, review and oversight emergency and longer term responses.

A.3 **Ensure Standard Operating Procedures** are in place, tested and practised in collaboration with emergency, recovery and other response systems.
A.4 Providing for surge capacity and sustainability, this involves providing broad base of skills, human resources to mobilise and rotate, supervisory and review capacities.

A.5 Plan should cover following core elements:
- Psychological first aid and triage, family reunion;
- Psychological, social, biological interventions and their theoretical background and evidence base including those dealing with trauma, loss, dislocation and other stressor impacts and pre-existing vulnerabilities;
- Indications for intervention at population, group and individual levels, and for prevention, treatment and rehabilitation and for all age groups and populations;
- Identification of risk and protective factors and populations are particular risk;
- Assessment of disaster stressors, exposures, populations affected and strategies for mitigation of adverse mental health impacts;
- Consultancy skills, public communication skills and supervisor skills;
- Models for different disasters in terms of what is known about mental health aspects of response;
- Terrorism impacts including CBRN and mental health impacts and potential interventions;
- Mental health in relation to health generally and other population impacts, eg social, behavioural;
- Working with other agencies, and with affected communities, and integration with health and mental health systems;
- Mental health responders, and all responders and their mental health needs and an occupational health and safety frameworks;
- Specific needs of children, adolescents, families, schools etc.

A.6 Documentation, information systems and evaluation – systematic documentation frameworks linked to other data sets should be available, they should be feasible for use in the emergency and subsequently, provide a basis for reporting and for evaluation of response. Evaluation should include also operational review and debriefing for learnings to contribute to future responses.

A.7 Preparedness for additional / other responses – this would include mental health aspects of overseas deployments, assessment and management of needs of returning Australians, for instance, and the additional needs when disaster / terrorism involves multiple, or sustained impacts, or occurs on the basis of other ongoing problems, conflicts etc.

B Disaster Response Plan
Will require as a minimum:

B.1 Mobilisation to response to first stage of emergency with coordinating group, specialist team / advisory, tasking of teams, workers.

B.2 Assessment of disaster / terrorism impacts and estimation of potential mental health needs and roles.

B.3 Determining, implementing and monitoring emergency response plan, with continuing updating as this plan responds to further intervention or need. This will include:
- Psychological first aid and triage;
- Needs of bereaved including family reunion / DVI and counselling or family support;
- Identify those at risk / need for follow up, or potential intervention including those injured, life threatened, exposed to deaths of others, dislocation etc;
- Providing support for workforce, including supervision, case review and meeting their mental health needs;
- Collaboration and support with emergency and recovery and other key operational and community stakeholders.

B.4 Transition and recovery phases – continuity of mental health responses, updating and renewing plan progressively including data, end points, and return to usual systems, determining duration and developing transitional and longer term plans include focus on optimising outcomes, return to functioning, family and children issues and links back into mental health systems (public and private).

B.5 Recovery plan – developing clear and longer term plan for particular disaster / incidents, in particular with other key agencies, with specific planning covering identified mental health risk, problems and management; how and where services will be provided; how, to whom, and by whom; progress for children, adolescents, adults etc; program monitoring, supervision.

B.6 Enhancing GPs and other health and non-health agencies are engaged in mental health and supported to provide evidence based good practice.

B.7 Communication / information strategy response to public for mental health issues eg pamphlets, helpline.

B.8 Reporting on outcomes and proposals for future as well as longer term follow up and formal evaluation.

B.9 Updating plan with review of progress and any changing or emerging needs, including reviewing data, end points, return to usual systems.

**Conclusion**

The above material highlights the need for preparation including clear guidelines as well as operational plans for responses. Further guidelines and manuals will be developed to support response.
Appendix C

Triage and Assessment Forms
The Crisis Triage Rating Scale (CTRS) may be used by clinicians as a guide in the determination of urgency of response.

Definition: The CTRS is a brief rating scale developed to screen emergency psychiatric consumers rapidly. It helps differentiate between consumers who require hospitalisation from those who are suitable for outpatient crisis intervention treatment (Bengelsdorf et al., 1984). The scale evaluates the consumers according to three factors: (A) whether they are a danger to themselves or others, (B) their support system and (C) their ability to cooperate. The clinician chooses the appropriate number under each scale that best describes the consumer’s presentation. The total score (A+B+C) can be useful in predicting whether hospitalisation would be required. For example, a consumer scoring below 9 requires hospitalisation, whereas for those scoring above 9 another intervention could be recommended. The Scale was originally based on a telephone triage scale and has been modified and expanded to cover a broader range of response options in inpatient and community services. This Scale should be used by a clinician in conjunction with the available triage information to make an informed decision about the urgency of response.

### RATING A: Dangerousness

1. Expresses or hallucinates (hears commands) suicidal/homicidal ideas or has made a serious attempt in present episode of illness. Unpredictable, impulsive, violent.
2. Expresses or hallucinates suicidal/homicidal ideas, without conviction, or the behaviour is somewhat dependent on the stress in the environment. History of violence or impulsive behaviour, but no current signs of this.
3. Expresses suicidal/homicidal ideas with ambivalence, or made only ineffectual gestures. Questionable impulse control.
4. Some suicidal/homicidal ideation or behaviour, or history of same, but clearly wishes and is able to control behaviour.
5. No suicidal/homicidal ideation/behaviour. No history of violence or impulsive behaviour.

### RATING B: Support system

1. No family, friends or others. Agencies cannot provide the immediate support needed.
2. Some support can be mobilised, but its effectiveness will be limited.
3. Support system potentially available, but significant difficulties exist in mobilising it.
4. Interested family, friends or others, but some question exists of ability or willingness to provide support needed.
5. Interested family, friends or others able and willing to provide support needed.

### RATING C: Ability to cooperate

1. Unable to cooperate or actively refuses.
2. Shows little interest or comprehension of efforts made on their behalf.
4. Wants help but is ambivalent or motivation is not strong.
5. Actively seeks treatment, willing and able to cooperate.

### Ascertainment guidelines:

The clinician may make the rating following a brief assessment over the telephone. It is recommended that if the score is equal to or less than 9, the response to the consumer should be one of extreme urgency, with appropriate documentation in the Triage’s ‘Action Plan’ and ‘Urgency of response’ on page 2.

### URGENCY OF RESPONSE SCALE (CTRS: A+B+C)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Extreme Urgency</td>
<td>Immediate response requiring Police/Ambulance or Other Service (e.g. overdose, siege, imminent violence)</td>
</tr>
<tr>
<td>B</td>
<td>High Urgency</td>
<td>See within 2 hours/present to Psychiatric Emergency Service or Emergency Department in General Hospital (e.g. acute suicidality, threatening violence, acute severe non-recurrent stress)</td>
</tr>
<tr>
<td>C</td>
<td>Medium Urgency</td>
<td>See within 12 hours (e.g. distressed, suicidal ideation of moderate to severe nature, disturbed behaviour)</td>
</tr>
<tr>
<td>D</td>
<td>Low Urgency</td>
<td>See within 48 hours (e.g. moderate distress, has some supports in place but situation becoming more tenuous)</td>
</tr>
<tr>
<td>E</td>
<td>Non Urgent</td>
<td>See within 2 weeks</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td>Requires further triage contact/follow up</td>
</tr>
<tr>
<td>G</td>
<td></td>
<td>No further action required</td>
</tr>
</tbody>
</table>

MHOAT Triage form
# NSW Disaster Mental Health Intake Form

## Surname

## Other Names

## MRN

## Facility

## D.O.B.

## M.O.

## Address

## Location

### Consumer Contact Numbers:

<table>
<thead>
<tr>
<th>ALERTS/RISKS?</th>
<th>No</th>
<th>Yes</th>
<th>Summary (summarise after triage completed)</th>
</tr>
</thead>
</table>

### Triage Details

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time:</th>
<th>Location:</th>
</tr>
</thead>
</table>

Communication issues (e.g., language or barriers, sensory impairment)

Information taken by:  
- Face to face
- Phone
- Other

Purpose of contact (if appropriate):  
- Seeking assistance/referral
- Information

Is client/primary carer aware of referral?  
- Yes
- No

Reason for referral (include whether client is opposed to referral)

### History

(e.g., past diagnoses, interventions, information on family history)

### Medical Issues

(e.g., significant illnesses, allergies, adverse drug reactions, duration risk, pregnancy)

### Current Treatments

(e.g., medications, psychological interventions, complementary/alternative interventions, providers/services involved)

### Drug and Alcohol Use

### Current Functioning and Supports

(e.g., concerns regarding living situation, ability to meet parental or other carer responsibilities (note name, age, current whereabouts of dependents))

### Staff Name

### Designation

### Sign

### Date
### Disaster mental health intake form

<table>
<thead>
<tr>
<th>INTAKE CENTRE</th>
<th>INTAKE NO.</th>
<th>TIME &amp; DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAMILY NAME</td>
<td>GIVEN NAME</td>
<td>D.O.B.</td>
</tr>
<tr>
<td>USUAL ADDRESS</td>
<td>POSTCODE</td>
<td>PHONE HOME:</td>
</tr>
<tr>
<td>CURRENT ADDRESS</td>
<td>POSTCODE</td>
<td>PHONE</td>
</tr>
</tbody>
</table>

**GP DETAILS**

**OTHER AGENCIES INVOLVED? IF YES PROVIDE DETAILS**

**CHILDREN/DEPENDANTS OF CLIENT** (names and whereabouts)

**IF CHILD A CHILD**: accompanied by □ parent / primary carer □ other appropriate carer (specify: □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ ^{253}
Appendix E - Diagnostic Criteria

Acute Stress Disorder – From DSM-IV-TR

**308.3 ACUTE STRESS DISORDER**

**Diagnostic criteria for 308.3 Acute Stress Disorder**

A. The person has been exposed to a traumatic event in which both of the following were present:
   1. the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
   2. the person’s response involved intense fear, helplessness, or horror

B. Either while experiencing or after experiencing the distressing event, the individual has three (or more) of the following dissociative symptoms:
   1. a subjective sense of numbing, detachment, or absence of emotional responsiveness
   2. a reduction in awareness of his or her surroundings (e.g., "being in a daze")
   3. derealization
   4. depersonalization
   5. dissociative amnesia (i.e., inability to recall an important aspect of the trauma)

C. The traumatic event is persistently reexperienced in at least one of the following ways: recurrent images, thoughts, dreams, illusions, flashback episodes, or a sense of reliving the experience; or distress on exposure to reminders of the traumatic event.

D. Marked avoidance of stimuli that arouse recollections of the trauma (e.g., thoughts, feelings, conversations, activities, places, people).

E. Marked symptoms of anxiety or increased arousal (e.g., difficulty sleeping, irritability, poor concentration, hypervigilance, exaggerated startle response, motor restlessness).

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or impairs the individual’s ability to pursue some necessary task, such as obtaining necessary assistance or mobilizing personal resources by telling family members about the traumatic experience.

G. The disturbance lasts for a minimum of 2 days and a maximum of 4 weeks and occurs within 4 weeks of the traumatic event.

H. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition, is not better accounted for by Brief Psychotic Disorder, and is not merely an exacerbation of a preexisting Axis I or Axis II disorder.

PostTraumatic Stress Disorder – From DSM-IV-TR

Diagnostic criteria for 309.81 Posttraumatic Stress Disorder

A. The person has been exposed to a traumatic event in which both of the following were present:
   1. the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
   2. the person’s response involved intense fear, helplessness, or horror. Note: In children, this may be expressed instead by disorganized or agitated behaviour

B. The traumatic event is persistently reexperienced in one (or more) of the following ways:
   1. recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. Note: In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.
   2. recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognizable content.
   3. acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). Note: In young children, trauma-specific reenactment may occur.
   4. intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
   5. physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:
   1. efforts to avoid thoughts, feelings, or conversations associated with the trauma
   2. efforts to avoid activities, places, or people that arouse recollections of the trauma
   3. inability to recall an important aspect of the trauma
   4. markedly diminished interest or participation in significant activities
   5. feeling of detachment or estrangement from others
   6. restricted range of affect (e.g., unable to have loving feelings)
   7. sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:
   1. difficulty falling or staying asleep
   2. irritability or outbursts of anger
   3. difficulty concentrating
   4. hypervigilance
   5. exaggerated startle response

E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:

Acute: if duration of symptoms is less than 3 months

Chronic: if duration of symptoms is 3 months or more

Specify if:

With Delayed Onset: if onset of symptoms is at least 6 months after the stressor