Improving our responses when disasters do strike

We can prepare for disasters and work to avoid them or limit their impacts, but once an event happens we have to respond. The health workforce and emergency services – paid and volunteer – play a major role in responding to disasters and also to enable the community to bear the impact of disaster. Research undertaken by IRU member universities means we understand better how to protect the wellbeing of the emergency response workforce and improve processes for specialist disaster response.

Postgraduate courses help spread this knowledge throughout the emergency and disaster workforce.

Lisa McFarlane
Postgraduate Program Coordinator

IRU websites
- iru.edu.au
- jamescu.edu.au
- griffith.edu.au
- jcu.edu.au
- cdu.edu.au
- flinders.edu.au
- auspolysoc.com
- aps.org.au
- ausredcross.org.au
- emau.org.au
- qps.qld.gov.au
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IRU newsletter
- Subscribe https://iru.net.au/newsletter/

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Our Contact Details

We encourage you to visit the IRU website at iru.edu.au for further information about our work and to visit individual IRU member universities websites.

IRU coordinates research and activities among its members to improve the health and safety of people in communities, individuals and children. Communicating risk and encouraging people to prepare both physically and mentally is crucial. Researchers across our network have investigated these issues with information on disaster preparedness being used by various agencies.

Addressing the psychological impact of disasters on those in disaster areas and those whose job it is to respond to major disasters

- Griffith University’s Behavioural Basis for Health Program, continues to refine materials and information available to the community on preparing for, and coping with, natural disasters. Building on work initially developed at James Cook University, The materials have successfully been incorporated into community awareness materials by Emergency Management Australia (EMQ), the Australian Psychological Society (APS), the Victorian State Emergency Service (SES) and the Red Cross. These agencies are using the findings and the materials from this research to assist people to prepare for, cope with and respond adaptively to recurrent disasters such as floods and bushfires.

- IRU is pleased to announce that a national training and public awareness program is being developed to improve the mental health of front line disaster responders. Research has shown that high levels of psychological stress can occur in the workplace of people who work in emergency and disaster response roles. Some examples are:

  - Griffith University’s Behavioural Basis for Health Program.
  - The Victorian State Emergency Service (SES).
  - The Queensland Police Service (QPS).
  - Emergency Management Australia (EMA).

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Children are very alert to the mood of the adults around them. IRU has produced advice on how to demystify disasters for children.

The 2009 Victorian Bushfires highlighted the problems of communicating the potential for significant disasters and how to prepare for them. Griffith University research in conjunction with the Bushfire CRC, focused on how to communicate risk, getting people to prepare and respond sensibly to expected events through delivery of human behaviour under stress. This research is being used by emergency services agencies by local governments affected by the Black Saturday Bushfires in their municipal public health and safety planning.

The Psychological Adaptation to Climate Change Program within the Behavioural Basis of Health and Griffith University’s Health Institute, is documenting and monitoring the psychological adaptations to the threat of climate change and natural disasters over time through a two year national survey research platform.
Preparing for and reducing the potential physical damage

Members of the IRU group of universities collaborate with international associations such as the World Health Organization (WHO) and the World Association for Disaster and Emergency Medicine (WADEM) to improve the management of disasters and their impacts. We focus on these through emergency response strategies, with a focus on population health and medical and health infrastructure, and as adaptation strategies in managing risk and improving the ability of coastal cities to withstand catastrophic weather events.

EMERGENCY RESPONSE STRATEGIES

The Barbara L. Tidwell University Research Centre for Disaster Resilience and Health (FRUCRH) is a leader in disaster and emergency response research and practice in the Asia Pacific region.

In this paper we set out the main themes to our work:

• preparing for and reducing the potential physical damage
• responding to and adapting to the physical impacts of a disaster
• addressing the psychological impact of disasters on those affected
• addressing the physical impact of disasters on those affected
• developing country specific emergency response strategies

In addition, FRUCRH is part of the WHO’s Advisory Group for Mass Gathering Health and Pandemic Response, assessing current knowledge and systematically reviewing evidence underpinning emergency and public health practice for major events such as the Olympic Games.

The Barbara Tidwell University Research Centre for Disaster Resilience and Health and the World Health Organization (WHO) have evaluated country specific health and emergency response strategies for major disasters.

The Barbara Tidwell Centre in conjunction with James Cook University’s Centre for Disaster Health and Emergency Response (COHER) and the World Health Organization (WHO) have evaluated country specific health and emergency response strategies for major disasters.

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Managing health and safety at large events

Bridging the link of resilience in disaster preparedness and response

In the Asia Pacific region is one of the most disaster prone in the world. In comparison to other regions it experiences disaster at a disproportionate level to its mass. The Emergence of mass scale illnesses during the 2009 Black Saturday Fires and the 2010 Mount Pinatubo volcano eruption in Indonesia highlight other sections of the region that barely rise above sea level. Most recently severe cyclone Yasi in north Queensland have challenged our ability to respond and survive through these extraordinary impacts.

These are challenging times for the region’s individual and communities and severe weather events are becoming more challenging for fragile or weak communities in our region, which is one activity that has been called upon as ‘natural’ neighbors in the Asia Pacific example.

One major area of the high quality cross-disciplinary research of the IRU network is in the development of strategies and tools to improve the ability of coastal cities to withstand catastrophic weather events.
Preparing for and reducing the potential physical damage

Members of the IRU group of universities collaborate with international associations such as the World Health Organization (WHO) and the World Association for Disaster and Emergency Medicine (WADEM) to improve the management of disasters resulting from all these themes. Their approach is to focus on the potential consequences of climate change, as well as on adaptation strategies in order to manage risk and improve the resilience of coastal urban areas to intensified catastrophic weather events.

EMERGENCY RESPONSE STRATEGIES

In this respect we use the main themes to our work:
• preparing for and reducing the potential physical damage
• effective and efficient emergency response strategies
• adapting to our changing world
• integrating strategies, stakeholders, and decision makers do not, and
• addressing the psychological impact of disasters on climate change management to these areas that it is a no-regret decision.

The Tamar Institute of Technology, a member of the IRU group, has an international reputation for its work in areas of disaster management. In particular, it focuses on evaluating the effectiveness of current disaster management approaches in order to assess our ability to respond to future events.

Disaster Resilience: Preparing, responding and adapting

Bridging the link in resilience in disaster health, we will focus on disaster preparedness and response.

Developing country-specific emergency response strategies

Urban researchers helping coastal communities adapt

Brisbane and the Gold Coast are among the world’s leading coastal urban areas. The region has a history of responding to natural disasters, including bushfires, tropical cyclones, and volcanic eruptions such as the 2009 Black Saturday Fires in Victoria, devastating wildfires such as the 2011 Queensland floods, and volcanic eruptions such as the 2010 Mount Taranaki eruption in New Zealand. It has a long history of responding to these events, and through these experiences, it has developed a range of strategies to reduce the potential physical damage.

A major focus of the IRU group of universities is on understanding the potential consequences of climate change, as well as on adaptation strategies in order to manage risk and improve the resilience of coastal urban areas to intensified catastrophic weather events.

Disaster Resilience: Preparing, responding and adapting

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The Asia Pacific region is one of the most disaster-prone in the world. In comparison to other regions, it experiences disaster at a disproportionate rate to its land mass. The region has both developed and developing economies, a rich mixture of cultures, and geography ranging from the driest continent on the planet to small tropical islands that barely rise above sea level.

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The Asia Pacific region is one of the most disaster prone in the world. In comparison to other regions it experiences disaster at a disproportionate level to its population. The Emergency Research and Coordination Hub (ERCH) of the IRU focuses on understanding the physical, environmental, social, psychological, economic, institutional and governmental factors that influence the capacity to handle increasing demands.

The Centre has been established at the Griffith University Gold Coast, including IRU and other Queensland Universities, in South East Queensland Climate Adaptation Research Initiative (SEQCARI) with the aim of investigating the suitability of existing disaster management arrangements and the various sectors’ capacity to handle increasing demands. There are links with the Natural Hazards Centre (UNSW), Victorian Tidal Flood Laboratory (University of Melbourne). The Centre is working towards the development of improved wind speed monitors. In conjunction with the Natural Hazards Centre, South East Queensland (SEQCARI) at James Cook University has been actively involved in the Bushfire Cooperative Research Centre (CBRC) and members Griffith focus on adapting Australia’s building codes keeping pace with environmental change.
Improving our responses when disasters do strike

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Postgraduate courses help spread this knowledge throughout the emergency and disaster workforce.

Enriching volunteer programs for fewer attrition and more volunteers

James Cook University’s School of Nursing, Midwifery and Nutrition, is a WHO Collaborating Centre. It has developed mental health standards for disaster nursing, collaborating with 35 centres worldwide.

Emergency service agencies in Australia are dependent on volunteers to provide their response. The Bushfire CRC, tasked with enhancing the volunteer volunteering project at La Trobe University addressed the problem of falling volunteer numbers across the fighting services. The project has been very successful in assisting agencies to improve volunteer recruitment and support programs, resulting in fewer volunteers leaving as well as additional recruits.

The University of Newcastle’s expertise in forensic odontology was very important in the aftermath of the Victorian Bushfires for identifying victims, bringing comfort to relatives and friends. The procedures and protocols used by odontologists were commended by other specialist disaster recovery groups. The work is reflected in the disaster victim identification Odontology Guide for the Australian Society of Forensic Odontology being used in the UK and NZ.

Since 2010 the Disaster Resilience and Health Research Centre at Flinders University has undertaken numerous research projects into disaster response. Both Flinders and Charles Darwin Universities are working together to develop collaborative projects for response to disaster and humanitarian crisis. They have both close links with the National Critical Care and Trauma Response Centre.

Understanding psychological adaptation over time

The Psychological Adaptation to Climate Change Program within the Behavioural Risk and Resilience at Griffith University’s Health Institute, is documenting and monitoring the psychological adaptations to the threat of climate change and natural disasters over time through a two year national survey research platform.

Improving processes for specialist disaster response

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Disaster Resilience and Health Research Centre

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Postgraduate courses disseminating the research outcomes

The BCU undertakes run postgraduate courses to disseminate their research outcomes to those who work in emergency and disaster response roles. Some examples are:

In the curriculum

• The Masters in Humanitarian Response – Charles Darwin University
• The Masters of Disaster Preparedness and Reconstruction – The University of Newcastle
• Master of Public Health, Disaster Management stream: Anton Briere Centre, James Cook University
• The Graduate Certificate in Policy Analysis - Griffith University

International Disaster Nursing short courses – Flinders University

Outcomes

• Disseminating the research
• Improving processes for specialist disaster response
• Enhancing volunteer programs for lower attrition
• Improving our responses when disasters do strike
• Postgraduate courses helping spread knowledge throughout the emergency and disaster workforce.

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