RESILIENT CARE

Community-led Action for Resilient Health Eco-Systems

Review of relevant academic and practice literatures (2025)

Prepared by The Good Shift for program partners

We acknowledge the Traditional Custodians of the lands on which we work and live, and recognise their continuing connection to land, waters and community. We pay our respect to them and their cultures; and to Elders past, present and emerging.

We are committed to embracing diversity and eliminating all forms of discrimination in the provision of health and other services. We welcome all people irrespective of ethnicity, lifestyle choice, faith, sexual orientation and gender identity.

Resilient CARE supports people to live healthy, connected lives—no matter how the climate changes or disasters unfold. The program focuses on the regions of Rockhampton, Livingstone, Gladstone, Bundaberg and Fraser Coast. The program is funded through Country to Coast Queensland by the Australian Government National Emergency Management Agency and the Department of Health and Aged Care. The program is delivered though a partnership model. Learn more at **resilientcare.com.au**

RESILIENT CARE | Community-led Action for Resilient Health Eco-Systems

CCQ COUNTRY TO COAST, QLD Healthy, connected communities

phn CENTRAL QUEENSLAND, WIDE BAY, SUNSHINE COAST An Australian Government Initiative

ABV Australian Business Volunteers

the good shift

Australian Government
National Emergency Management Agency

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Review of academic and practice literatures

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Purpose and audience

This literature review has been undertaken to identify evidence to inform the design, implementation, and evolution of the Resilient CARE program. The review is not intended to provide a comprehensive, formal academic literature review, but rather, highlights relevant examples and learnings, with a strong focus on Australian contexts, to support staff from Country to Coast Queensland (CCQ) and Australian Business Volunteers (ABV), and practitioners working to implement actions to improve climate health and disaster resilience in the CCQ region. The report is structured in a way to make it easy for other program partners and stakeholders to easily find and make sense of relevant evidence on particular topics.

Bounding this review

Hundreds of thousands of papers have been written on the topic of resilience across a range of disciplines and contexts. To provide evidence which is most useful to CCQ and Resilient CARE partners, this review focuses on literature relevant to the core foci of the Resilient CARE program, as shown below.

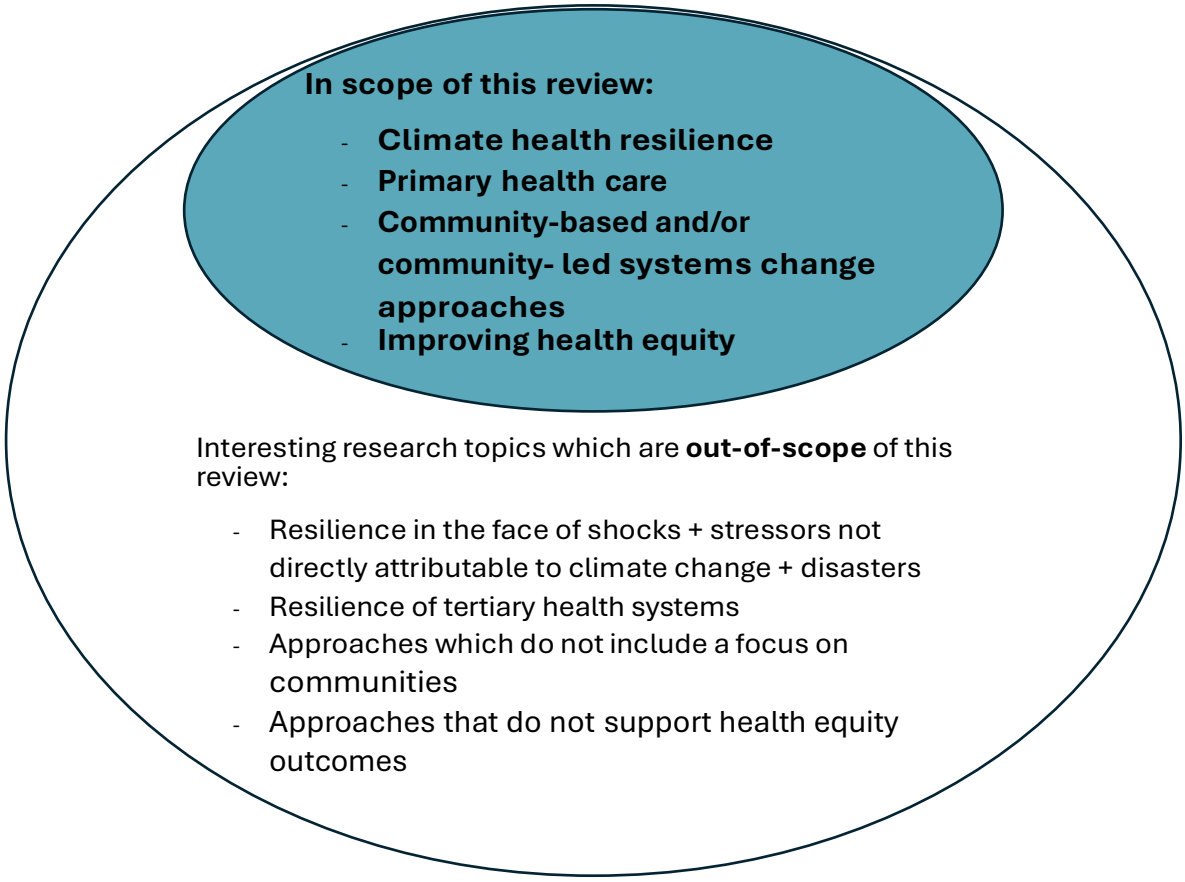

Figure 1: Literatures in and out of scope for this review

Some important points to ponder

The Good Shift applauds the efforts of the CCQ to explore opportunities to connect systems of care across community, health, and disaster management contexts to improve the health of people across CCQ regardless of the climate changes and disasters which occur. We are particularly inspired by the focus on equity, place, and community leadership. Our review of the literature has highlighted some key "points to ponder" for CCQ and other Resilient CARE contributors which are summarised below. These points reflect contextual challenges for readers to ponder as they engage with the substantive literatures addressed in this review and will require careful and ongoing consideration in the implementation and iteration of Resilient CARE over the coming three years and beyond.

Resilience impacts of compounding disasters

• Compounding disasters, or the increasing range and frequency of disasters impacting a community, is shortening the time between preparation, response and recovery (Muir & Odgers, 2023) • Some authors have found an increase in levels of self-reported resilience and a decrease in the severity of physical symptoms resulting from additional exposures to disasters (Osofsky et al., 2018). • Others, however, suggest that compounding disasters compromise resilience (Hegney et al., 2007; Masten & Obradovic, 2008). • There is also evidence that many community members are still seeking recovery support (particularly mental health support) when the next disaster occurs (Muir & Odgers, 2023). • Government funding timelines for post- disaster recovery support may not enable recovery supports for the length of time required to support community members to fully recover from compounding disasters, or to adjust to a 'new normal' (Muir & Odgers, 2023).	***Implications for Resilient CARE*** • Consider opportunities for Resilient CARE processes to learn about and better understand the impact of compounding disasters on different cohorts and different parts of the region. • Where a cohort or region appears to be experiencing lower levels of resilience, consider opportunities to work with local actors to experiment with strategies to bolster resilience. • CCQ could make a valuable contribution to understanding the compounding impacts of disasters on people in the region by expanding the Health Needs Assessment survey to include additional questions regarding preparedness and resilience.

Resilience is a process, not a permanent or fixed state

• While there is no universally agreed definition of resilience, there is broad acceptance that resilience is a process (Norris et al., 2008; Shumake-Guillemot et al., 2015; Ungar, 2018). • Resilience involves ongoing processes of accessing and using the resources needed to function well and 'be well' under stress (Panter-Brick in Southwick et al., 2014, p 4; Ungar, 2018). • These processes seek to strengthen the capacity of different parts of the system to cope with stressors and shocks and therefore strengthen the system (Ungar, 2018).	***Implications for Resilient CARE*** • Develop and/or support strategies and tools that provide opportunities for individuals, cohorts, providers and communities to continue to grow resilience over time. • Recognise the dynamic and evolving nature of resilience and develop strategies to identify emergent signals rather than static measures/indicators of change. • Adopt learning processes that observe and adapt to changes in processes of resilience across the region.

The importance of First Nations leadership and perspectives

• First Nations peoples hold and maintain valuable knowledge about climate and health and about preventative practices such as cultural burning (Fire to Flourish, 2024; Hil et al., 2020; Perotta, 2023). • Leadership by First Nations people can create opportunities for knowledge sharing and relationship building to inform disaster management and strengthen collective action to bolster resilience (Fire to Flourish, 2024; Hil et al., 2020; Perotta, 2023).	***Implications for Resilient CARE*** • Consider opportunities to commission First Nations-led engagement to identify opportunities to enrich existing plans with First Nations knowledges, and to better support First Nations residents in CCQ.

Indicators are helpful signposts but imperfect predictors

• Community-identified Indicators can help catalyse action around change that is meaningful to local residents. • Indicators can also mask differences that might exist between groups in a community, in relation to vulnerabilities (Tan, 2021). • Research suggests though, that measuring and assessing resilience does not consistently predict which communities will have the best health outcomes or be most resilient post-disaster (Tan, 2021).	***Implications for Resilient CARE*** • Seek opportunities to influence planned resilience processes by presenting evidence regarding local community strengths, vulnerabilities, and priorities. • Prioritise Resilient CARE efforts towards enabling emergent resilience

Changing systems takes time and effort by multiple system actors

• Fortnam et al., (2023) have observed that incremental changes by health workers can transform health systems over time and that top-down change in the form of national policy or legislative change can enable local level absorptive and adaptive strategies. • Adaptive and transformative strategies leverage resilience at other scales and the knowledge and experience of other organisations, actors, institutions and sectors (Fortnam et al., 2023).	***Implications for Resilient CARE*** • Recognise the strengths and opportunities of the Resilient CARE program while seeking to engage other system actors to contribute their efforts and resources to supporting the resilience of at-risk population groups in the region. • It can take years of intentional and cross-sectoral work and resourcing to develop the conditions, relationships and capacities required to enable authentic community-leadership of collective actions to grow community resilience.

Communicating and acting effectively to improve health equity

• Language influences public support for policies and programs to improve health equity (Sweetland & Connolly, 2025). • Aligning communications with values, explanations and solutions can help to influence mindsets over time by clarifying priorities, reducing confusion, and offering hope (Sweetland & Connolly, 2025). • Different messages will be required depending on timing in relation to disasters and a recipient's level of understanding of, and support for, resilience boosting strategies to support vulnerable cohorts.	***Implications for Resilient CARE*** • Support the development and use of communication tools and resources which inspire diverse community members to participate in efforts to improve resilience for themselves, their friends and family and the broader community. • Explore the relevance of existing, evidence-based framing and communication tools to support the development of timely and bespoke Resilient CARE communication approaches.

Defining core concepts

Climate change

"Climate change is a change in the pattern of weather, and related changes in oceans, land surfaces and ice sheets, occurring over time scales of decades or longer.... Climate change may be due to natural processes, such as changes in the Sun's radiation, volcanoes, or internal variability in the climate system, or due to human influences such as changes in the composition of the atmosphere or land use." (Australian Academy of Science, n.d.).

Climate health

Refers to the way that "changes to climate and environment can seriously affect people's mental and physical health, and can compromise their physical safety, access to clean air, safe water, food and health care, resulting in vulnerability, illness, injury or death." (ClimaHealth, n.d.).

Climate resilience

"The capacity of an individual, community, or institution to dynamically and effectively respond to shifting climate impact circumstances while continuing to function at an acceptable level." (Rockerfeller Foundation, 2009, Cited in Guenther & Balbus, 2014, p.2).

Disaster

"A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.**" (**Australian Institute for Disaster Resilience, n.d.**).** Note that this review is focused on *natural* disasters.

Resilience

"The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management." Australian Institute for Disaster Resilience, n.d.**).** Note that this review is focused on resilience relating to *natural disasters*.

Overview of health impacts of disasters and climate change

The global literature describes a wide range of direct, indirect and population health impacts of climate-related hazards and disasters (Osofsky et al., 2018; Shumake-Guillemot et al., 2015; Xie et al., 2018). Core health impacts identified through the literature are summarised in Table 1.

Table 1: Summary of health impacts of disasters and climate change

Examples of **direct health impacts**	Examples of **indirect health impacts**	Examples of **population impacts**
Diseases impacting the cardiovascular, respiratory, and endocrine systems due to fires and other disasters (Shumake-Guillemot et al., 2015)	Mental illnesses including post-traumatic stress disorders, anxiety and depression following the stress of disasters (Baillie et al., 2024; Cianconi et al., 2020; Norris et al., 2007; Osofsky et al., 2018; Yehuda,in Southwick et al., 2014)	Population displacement if communities become uninhabitable post-disaster or because of stressors such as rising sea levels or drought (Dwinantoaji et al., 2021; Emergency Management Victoria, 2017)
Injuries such as those caused by fires, falling trees, floating debris, and other disasters (Bailley et al., 2024; Choudhary & Kumar, 2022; Lokotola et al., 2023)	Infections of pre-existing wounds due to exposure to flood waters (Ward et al., 2024)	Under-nutrition if food sources are damaged (Baillie et al., 2024; Shumake- Guillemot et al., 2015)
Illnesses and/or death caused by exposure to extreme heat or cold (Xie et al., 2018; Xu et al., 2020)	Increased stress and attrition amongst primary health care workers supporting communities impacted by disasters (Hughes et al.,2016; Ward et al., 2024)	Productivity impacts resulting from increased illness and disease amongst workforces (Shumake-Guillemot et al., 2015)
	Increased risk of vector- borne, flood and water- borne diseases (Shumake-Guillemot et al., 2015)	Compromised developmental outcomes in children (Baillie et al., 2024)
	Hygiene-related illnesses due to lack of clean water (Shumake-Guillemot et al., 2015)	Lower birth rates (Baillie et al., 2024)
	Impacts on immune and nervous systems arising from toxic levels of disaster- related stress (Masten & Obradovic, 2008)	

The literature is also very clear that some groups are more vulnerable to climate and disaster related risks (Australian Institute of Disaster Resilience, n.d.; Ward et al., 2024). Vulnerability in the contexts of disasters has been defined by the World Health Organisation (2017) as "*The conditions determined by physical, social, economic, and environmental factors or processes which increase the susceptibility of an individual, a community, assets, or systems to the impacts of hazards*."

Some of the cohorts which experience higher rates of vulnerability in the face of disasters in Australia include:

- people with disability and their carers (Baillie et al., 2024)

- Aboriginal and Torres Strait Islanders (Baillie et al., 2024)
- children and young people (Baillie et al., 2024)
- seniors (Baillie et al., 2024; Xie et al., 2018)
- people with pre-existing or chronic illness (Cianconi et al., 2020; Ward et al., 2024)
- people who live alone or are socially isolated (Cuthbertson et al., 2023; Norris, et al., 2007)
- people experiencing family and domestic violence (Parkinson, 2017)
- people from culturally and linguistically diverse backgrounds (Chandonnet, 2021)
- people living in rural or remote communities (Baillie et al., 2024; Woolcock et al., 2025)
- and people with low incomes (Bailley et al., 2024; Cianconi et al., 2020; Dwinantoaji et al., 2021; Norris et al., 2007; Xie et al., 2018).

It is important to note that levels of vulnerability will vary between members of these cohorts and that members of these cohorts are also likely to have some strengths to draw upon, or that can be nurtured to grow resilience over time (Chandonnet, 2021). It is also important to note that many people belong to two or more of these vulnerable groups (e.g. over 65 years of age and Aboriginal and living with chronic illness). The 'intersectionality' these people experience further increases their vulnerability during disasters (Chandonnet, 2021; ClimaHealth, n.d.; Crawford et al., 2021; Every et al., 2019).

Australia and Queensland

As noted above, some population groups are more likely to experience adverse health impact due to climate change and disasters. Table 2 summarise evidence relevant to Australian contexts regarding the potential health impacts of climate change and disaster for these cohorts. This table provides a snapshot only, it is intended to highlight relevant fields of research that exist that could inform Resilient CARE activities, rather than providing a comprehensive review of the vast bodies of research undertaken on these topics.

Table 2: Health impacts of climate change and disasters on vulnerable Australian cohorts

Vulnerable cohorts	Evidence of health impacts within Australian contexts
People with disability and their carers	• People with disability face increased mortality rates, higher risks and injury and are more likely to rely on health and social services during disasters (Collaborating4Inclusion, 2024). • Breaks in health service continuity during disasters compromises the health and wellbeing of people with disability (Collaborating4Inclusion, 2024) • 83% of people with disability surveyed by People with Disability Australia (2024) had never been consulted about disaster prevention and only 36% had an emergency plan.
Aboriginal and Torres Strait Islanders	• First Nations Australians are disproportionately impacted by disasters (Australian Institute for Disaster Resilience, 2021). • The Sendai Framework for Disaster Risk Reduction 2015-204 (UNDRR, 2015) recommends including local First Nations knowledges and practices in emergency and disaster management arrangements however research

	indicates that this is generally not reflected in emergency management plans across Australia (Radel et al., 2023). • Research grounded in the experiences of First Nations peoples recommends culturally safe and place-based practice to improve the social, emotional, and spiritual wellbeing of First Nations peoples following cumulative disasters including by: ▪ Adopting country-centred understandings of communities ▪ Being community-led ▪ Focusing on collective and relational care ▪ Having fluid boundaries (Keevers et al., 2024).
Children and young people	• Children and young people may exhibit post-disaster social and mental health consequences for many years due to immediate wellbeing threats, cumulative exposures, and family, education, and environmental disruptions during key developmental stages (Perry et al., 2024; Spencer & Thompson, 2024). • Children and young people may also make important contributions to family recovery (Spencer & Thompson, 2024). • Emergency arrangements should embed the needs of children and young people in planning, response, and recovery arrangements (Spencer & Thompson, 2024). • Children's resilience in disaster situations is supported by opportunities to: ▪ Maintain a sense of calm and connection ▪ Maintain family and community relationships ▪ Ensure the safety of their loved ones ▪ Focused and child-centred disaster planning, response and recovery (Perry et al., 2024).
Seniors	• Seniors face a range of intersecting factors which compromise their resilience such as mobility issues, reliance on carers, existing poor health, social isolation and communication challenges (Kwan & Walsh, 2017). • Disaster management policy settings may over-estimate the ability of older people to be "self-reliant" in the event of a disaster (Astill & Miller, 2017). The growing number of seniors within communities requires specific attention to ensure that disaster preparation, response and recovery arrangements reflect the specific needs oft his cohort (Kwan & Walsh, 2017). • Between 2006-2019, people aged 65 years+ were 12.8 times more likely to die a weather-related death than the rest of the Australian population (Peden et al., 2023).
People at risk of domestic and family violence	• Domestic violence has been found to increase in both developing and developed countries (such as in Australia after Black Saturday bushfires, Charleville floods, and other disasters) however, this violence is often not reported or systematically monitored or challenged (Chowdry et al., 2022; Molyneux et al., 2019; Parkinson, 2017; Parkinson & Zara, 2013). • Post-disaster contexts (e.g. grief, loss, financial and personal hardship, over-crowded temporary accommodations, constrained exit options, challenges to gender roles and expectations) are often associated with increases in problematic drug and alcohol use, poor mental health and interpersonal violence (Molyneux et al., 2019; Parkinson & Zara, 2013). • International evidence highlights significant increases in domestic violence following disasters in NZ and USA (Parkinson & Zara, 2013).
People from culturally and linguistically diverse backgrounds	• Lack of familiarity with the types of disaster encountered in Australia, limited English language proficiency and social networks and previous

	exposure to trauma can result in some CALD communities being more vulnerable before, during and after disasters (Chandonnet, 2021). • The disaster resilience of CALD communities can be strengthened by: ▪ Delivering cultural awareness training for emergency services personnel ▪ engaging CALD communities in disaster preparedness and response processes ▪ building social connection ▪ developing focused response and communication strategies (Chandonnet, 2021; Hayes & Ryan, 2024). • Customised workshops and training to engage people from CALD backgrounds can improve their knowledge, grow skills, build confidence, connections and trust in emergency service providers and support proactive strategy development to increase disaster resilience (Crawford et al., 2021; Kelly et al., 2024).
People with chronic illness	• Pre-existing chronic health conditions and mobility limitations challenge the resilience of seniors – particularly those who relay on continuous access to medication, carer support and/or mobility or other equipment (Kwan & Walsh, 2017). • Supporting patients with chronic health conditions during and after disasters is likely to be the most significant challenge faced by GPs and other health providers (Burns et al., 2025).
People who live alone or who are socially isolated	• Social exclusion was associated with lower levels of resilience in a bushfire impacted WA community (Cuthbertson et al., 2023). • Feelings of social isolation weaken civil society, social capital and the democratic participation needed for local action to grow resilience (Hil et al.,2020).
People in rural or remote communities	• Barriers in accessing timely, person-centred care due to geography, challenge workforce dynamics and poor integration of policy, program and funding of health services result in poorer overall health and wellbeing (Woolcock et al., 2025). • Service can be disrupted due to lack of access to medical supplies and/or poor road conditions challenging physical access (Ward et al., 2025).
People experiencing homelessness	• Homelessness reduces disaster resilience for both individuals and broader communities (Brookfield & Fitzgerald, 2018). • The vulnerability of this cohort is compounded by often co-occurring stressors such as poor mental and physical health and social isolation, however the needs of this cohort is not well considered in many disaster management or policy arrangements (Every et al., 2019; Mortimer et al., 2023). • Community Service Organisations can reduce the disaster vulnerability of people experiencing vulnerability by providing disaster preparedness and response activities, mapping local vulnerabilities, and informing local disaster management arrangements to ensure the needs of this cohort are included in planning and responses (Brookfield & Fitzgerald, 2018). • People experiencing homelessness have indicated that training programs to improve disaster resilience within this cohort are likely to be most effective if they: ▪ involve partnerships and knowledge sharing with emergency service providers; ▪ include customized information about local risks and support options and stories, distributed via the local services they access; ▪ are provided via outreach; and ▪ build on relationships with providers (Every & Richardson, 2018).

People with low incomes	• Competition for scarce primary healthcare staff during disasters more significantly impacts low-income residents (Ward et al., 2025). • Households with lower incomes may not have the financial capacity to move to less disaster-impacted locations (Kwan & Walsh, 2017). • The ability of people to be prepared for and to recover from a disaster is highly influenced by the financial capacity to meet the costs of the disaster, and the level of insurance cover held, which highlights the potential impacts of financial inequity (Boon, 2013; Stanley, 2017).

CCQ Region

The CCQ region is recognised as containing some of the most disaster impacted communities in Australia. Surveys commissioned by CCQ PHN indicate that slightly more than one-third of residents felt prepared for future disasters (Wide Bay 34% and Central Queensland 32%) - with priorities identified for improved communication, more reliable ICT infrastructure, greater support for first responders and more inclusive preparedness processes (CCQ PHN, n.d.). The Climate Well and Safer Futures Consortium has developed Health and Climate Resilience Profiles which provide specific data for each of the five LGAs in scope for Resilient CARE.

Framing resilience

While there is no universally agreed definition of resilience several framings of the concept are relevant to Resilient CARE, as described below.

Shocks and stressors

The literature clearly identifies that resilience is critical to recovering from both acute shocks such as fires or cyclones and chronic stressors such as increasing temperatures and rising sea levels (Emergency Management Victoria, 2017; Southwick et al., 2014). Shocks can cause injuries, increase morbidity and health systems demands, they can also damage, disrupt or destroy health system capacities (Fortnam et al., 2023). Stresses such as economic recession, impact the health and wellbeing of communities over longer periods of time and can both increase demand for health services and compromise the capacity of the health system to respond (Fortnam et al., 2023). Given the compounding nature of disasters discussed above, many communities and at-risk cohorts are likely to experience overlapping stressors (e.g. increasing temperatures) and shocks (e.g. drought and bushfires).

Some common shocks

- Bushfires
- Floods
- Cyclones
- Epidemics + pandemics
- Wars
- Infestations + plagues
- Supply chain disruptions

Some common stressors

- Increasing temperatures
- Labour market shortages
- Social disruption
- Political upheaval
- Economic recession
- Increasing acidification of waterways
- Drought

Resilience capacities

Resilience is both popularly and empirically associated with the notion of 'bouncing back' after a significant stressor or shock (Hegney et al., 2007; Norris et al., 2008). The Resilient CARE program acknowledges the importance of this concept but has adopted a broader framing of resilience which recognises a spectrum of resilience capacities relating to absorptive, adaptive, and transformative capacities (Fortnam et al., 2023). Evidence regarding these capacities is summarised in Table 3. These capacities are not considered to be linear or mutually exclusive, rather, all are likely to be evident in pockets in the aftermath of any disaster (Fortnam et al., 2023).

Shumake-Guillemot et al. (2015) have made the important observation that **resilience may not always be possible** as the magnitude of some disasters may be so great that systems may collapse or fail, compromising the resilience of individuals and communities.

Table 3: Evidencing Resilience Capacities

Absorptive Capacity	***Refers to:*** The ability of an organisation or system to cope with an expected or unanticipated disturbance such as a disaster. To increase absorptive capacity, increase system redundancy, robustness, and agility (Behrens et al., 2022)
	Together with Adaptive Capacity, is often the focus of traditional disaster management responses
	Sometimes summarised as *surviving* (Emergency Management Victoria, 2017) or *bouncing back to a normal* state (Fortnam et al.,2023)
	Often activated in response to lower-level shocks (Fortnam et al.,2023)
	Absorptive capacities result in the maintenance of, or return to pre-disaster status quo (Fortnam et al., 2023)

	For example: Requiring staff to work longer hours to support patients during low-level and short-term flooding
Adaptive Capacity	***Refers to:*** "the ability to make incremental adjustments to the health system to enable it to continue functioning in response to a shock or escalating stress, without fundamentally changing any of the health system capacities" (Fortnam et al., p. 2)
	Together with Absorptive Capacity, is often the focus of traditional disaster management responses
	Sometimes summarised as *adapting* (Emergency Management Victoria, 2017; Fortnam et al., 2023)
	The quality of adaptive strategies are influenced by the nature, context, quality and quantity of stress experienced (Ungar, 2018)
	Adaptive capacities seek to moderate harm or leverage opportunities (IPCC cited in Shumake-Guillemot et al., 2015)
	For example: Increasing budget allocations to improve local access to essential health services.
Transformative Capacity	***Refers to:*** Strategies that 'permanently and fundamentally alter the functioning or structure of the health system' (Fortnam et al., 2023, p. 2)
	Necessary when shocks and stresses are increasing in intensity, frequency or impacts and existing arrangements are no longer fit-for-context
	Enabled by learning, reflection and collaboration
	Sometimes summarised as *thriving* (Emergency Management Victoria, 2017), *resisting* (Tan, 2021) or *turning crises into opportunities* (Fortnam et al., 2023)
	For example: Partnering with other providers to design and implement new workforce strategies and incentives to address staff shortages.

Resilience characteristics

Emergency Management Victoria (2017) has published a *Community Resilience Framework for Emergency Management* which identifies seven characteristics of resilient communities: safe and well; connected, inclusive and empowered; dynamic and diverse local economy; sustainable built and natural environment; culturally rich and vibrant; democratic and engaged; reflective and aware. These are broadly consistent with the themes which emerge in the wider literature. For example, Tan (2021) noted that the major dimensions and

associated resilience resources spanning pre- and post-disaster responses identified via four reviews of community resilience frameworks (Patel ae al, 2017; Gillespie-Marhaler et al., 2019; Cutter, 2016 a; Sharifi, 2016) are:

- Social - including demographics and structures, social capital, and institutions, belonging, safety and wellbeing; equity and diversity, community competence, attitudes (e.g. hope)
- Economic - including structures, security, post-disaster aid
- Natural environment/ecology - including natural resources and assets
- Built environment, infrastructure, and resources – (e.g. robustness, availability, design)
- Institutional governance – (e.g. leadership and participation, disaster planning, emergency management resources, education, and training).

The design of the Resilient CARE program considered and adapted these characteristics to reflect a primary health focus relevant to regional Queensland. The characteristics prioritised by Resilient CARE are well supported by research, as shown below.

Healthy

- Health service delivery has been identified as one of ten components of climate resilient health systems (WHO, 2015).
- Disaster resilience has been observed as a function of good physical and mental health that is, people who are healthy before a disaster are more likely to be resilient during and after a disaster (Cuthbertson et al., 2022).
- Climate change has been found to exacerbate existing health and gender inequalities and increase vulnerability for already vulnerable groups (WHO, 2024). The WHO (2024) has therefore argued that resilience responses must prioritise vulnerable cohorts, must be inclusive and support equitable participation, influence and access to decision-making, financial resources, and benefits (e.g. information, technology, and services).
- Core actions for primary health care providers to create health co-benefits and support mitigation and/or adaption to health effects of climate change include:
    - provision of health care, promotion and prevention supports
    - research, education and advocacy
    - anticipatory guidance and modification of treatments for vulnerable cohorts before/during/ after disasters and
    - health system strengthening (Xie et al., 2020).

Connected and inclusive

- Community action and voice and trusting relationships between actors are critical to climate resilience in health systems (Australian Institute for Disaster Resilience, 2020; Neighbourhood Centres Qld, 2024; Taylor et al., 2019; WHO, 2015; Wilkins, 2018).

- Community engagement is key to effective disaster preparedness and facilitates community-to-agency relationships with "clear aim to build capacity in communities to contextualize and understand risk and take appropriate actions to prepare" (Taylor et al., 2019, p. 46). This paper also includes indicators and suggestions for measuring different 'tiers' of engagement in emergency management.
- More broadly resilient systems are recognized as promoting connectivity and including diversity, redundancy, and participation (Ungar, 2018).
- The term 'community' is ambiguous and unclear in current emergency management plans and processes, and many challenges to effective and equitable engagement are identified (Rawsthorne et al., 2025).

Knowledgeable, reflective, and aware

- Resilient communities draw on and make use of knowledge and information to understand and respond to disaster risks (Cuthbertson et al., 2022).
- Local knowledge of who is most vulnerable within communities and most likely to require assistance before, during and after a disaster is key to reducing injuries, illness and death (Ward et al., 2024).
- Resilient systems demonstrate experimentation and learning (Ungar, 2018).
- Listening to and learning from local experts with lived experience are critical to bolstering local resilience (Neighbourhood Centres Qld, 2024).

Infrastructure, resources, and communication

- Financing of focused and intentional climate and health actions, access to health workforce, health information systems, essential medical products and technology are features of climate resilient health systems (Schumake-Guillemot et al., 2015).
- Resilient systems are characterised by effective resource mobilisation (Cuthbertson et al., 2022; Mallon et al., 2013) and quality communication (Cuthbertson et al., 2022; Wilkins, 2018).
- Social infrastructure – like libraries and parks – that is intentionally designed, built, activated and managed can help communities to combat isolation, polarisation and mistrust; to create hubs that help people prepare for shocks and survive and recover from disasters; and strengthens the civic engagement and social capital that enable people to work together to expedite recovery (Aldridge, 2023; Reimagining the Civic Commons, 2025).
- Aldrich (2023) has observed that communities in Japan with access to more quality social infrastructure experienced lower mortality rates post-tsunami, than communities with much more expensive 'gray infrastructure' like sea walls. Similarly, communities which focused on building social infrastructure post Hurricanes Katrina and Rita recovered faster, and more strongly (from both social and economic perspectives) than those that focused on state-led hard infrastructure development (Aldrich et al., 2022).

Leadership, collaboration, governance, and policy

- Regional primary healthcare networks, clinical leadership and policy development have been identified as supporting the capacity of primary health care nurses during and post-disasters (Ward et al., 2024).
- Current disaster management policies do not sufficiently promote community participation or shared responsibility in emergency management (Rawsthorne et al., 2025).

- Peer-led models for disaster resilience are particularly important for highly vulnerable cohorts such as homeless peoples (Blackburn, n.d.)
- Locally-led community responses in South East Queensland supported flood recovery and provided opportunities for locals to build skills, confidence and sense of community, improved capacity and response plans, improved working relationships with organisations, improved communication and resource identification; however organizational infrastructure to support the participation of volunteers is needed (Baines & Hanlon, n.d.).

Planned Vs emergent resilience

> *"To build collective resilience, communities must reduce risk and resource inequities, engage local people in mitigation, create organisational linkages, boost and protect social supports, and plan for not having a plan, which requires flexibility, decision-making skills and trusted sources of information that function in the face of unknowns."*
>
> *(Norris et al., 2008, p. 127).*

Some researchers have identified the difference between planned and emergent resilience.

Planned resilience relates to the development and dissemination of strategies to prepare for, respond to and support recovery from disasters. Planned resilience is a core feature of disaster management systems in Australia and elsewhere.

Others have noted that emergent resilience is a dynamic process that involves responding to unexpected circumstances and situations (Fortnam et al., 2024; Labarda et al., 2017).

Emergent resilience therefore relies much more heavily on collaborative, community-based actions, enabled by adaptive governance, social capital and learning. Conceptions of emergent resilience recognise findings from the broader resilience literature which indicates that resilient systems are open, dynamic, and complex (Ungar, 2018).

The ability to gather, reflect on and learn from relevant and accurate information and to use that information to collaborate with others to solve problems is often more important for community resilience than developing robust, pre-defined plans (Norris et al., 2007).

Improving resilience

The sections which follow provide a snapshot summary of evidence regarding strategies to improve resilience relevant to core Resilient CARE priorities.

Resilient primary health care

How primary health care providers and systems protect the health of at-risk populations in the face of climate change and disaster

Disaster-prone communities rely on health centres for access to continuity of care and emergency responses (Burns et al., 2025; Keevers et al., 2024; Sirua et al., 2025). Many primary healthcare workers have distributed and personalised relationships with patients and can provide valuable input to risk mapping, disaster preparedness and monitoring, and to responding to health issues which emerge during or post-disaster (Collaborating4Inclusion, 2024; Dwinantoaji et al., 2021; Sirua et al., 2025; Ward et al., 2024).

During, and following disasters, primary healthcare workers:

- play a key role in meeting the healthcare needs of communities (Burns et al., 2025; Keevers et al., 2024; Mawardi et al., 2020)
- are often the first point of contact for disaster-impacted communities (Sirua et al., 2025) and have existing communication channels and relationships with at-risk groups within the community (Collaborating4Inclusion, 2024)
- support clients to plan for and recover from disasters including by providing information, and education to community members, are sometimes required to assume leadership responsibilities; including for adapting and implementing disaster plans and engaging with communities (Sutriningsih et al., 2018; Ward et al., 2024)
- may operate outside their usual scope of work to ensure continuity of care despite disaster-related challenges, and to deliver emergency care alongside their usual duties (Sirua et al., 2025; Ward et al., 2024)
- are often also personally impacted by the disaster but are still required to provide care which impacts their personal safety and wellbeing (Ward et al., 2024).

What conditions, capabilities, supports enable primary health care systems to protect at-risk populations

A climate resilient health system is:

> *"one that that is capable to anticipate, respond to, cope with, recover from and adapt to climate-related shocks and stress, so as to bring sustained improvements in population health, despite an unstable climate." The WHO (cited in Shumake-Guillemot et al., 2015, p.8)*

For Primary Health Care providers and systems to support communities to be resilient, the providers and health system itself need to be resilient. For a health system to become resilient, all its elements must be resilient including:

- its leadership and governance; health workforce; health information systems; essential medical products and technologies; service delivery and financing (Shumake-Guillemot et al., 2015, p. 11)
- by investing in business continuity planning, ICT infrastructure and working capacity (Collaborating4Inclusion, 2024)
- its redundancy and diversity; agency and self-organisation; connectivity; and awareness and a learning culture (Fortnam et al., 2023) and

- system actors must seek to influence the resilience of other health-influence sectors (e.g. sanitation, food and emergency management) (Shumake-Guillemot et at., 2015).

Primary healthcare systems can become more resilient by:

- supporting knowledge sharing and synthesis together with collaboration between practitioners from relevant disciplines to address functional gaps relating to disaster risk assessment and preparedness, and taking action to strengthen human and infrastructure resources (Mawardi et al., 2020)
- increasing staff rostered to work in residential aged care facilities before, during and after disasters (Ward et al., 2024)
- bolstering physical 'toughness' of health centres (e.g. by strengthening rooves), social resilience, institutions and infrastructure, and reducing vulnerabilities (Sutriningsih et al. 2018).

Opportunities to increase the resilience of primary healthcare

Education and training

- ✓ Provide contextually relevant training on topics including – risk reduction, disease prevention, and health promotion; and regular drills to bolster the planned resilience of primary healthcare providers (Sirua et al., 2025; Ward et al., 2024)
- ✓ Advocate for the inclusion of content regarding the health impacts of climate change and disasters in nursing, pharmacy and other undergraduate degree programs and/or help to develop and deliver other forms of training (Ward et al., 2024; Xie et al., 2018)
- ✓ Provide training on strategies to support vulnerable cohorts in the lead up to, during and after disasters (Burns et al., 2025; Keevers et al., 2024)
- ✓ Advocate for and/or undertake community-led research to inform local resilience activities (Xie et al., 2018)

Engagement and collaboration

- ✓ Engage community stakeholders in the development of disaster preparedness, management and response plans (Astill et al., 2018; Brookfield & Fitzgerald, 2018; Chandonnet, 2021; Crawford et al., 2024; Keevers et al., 2024)
- ✓ Improve access to leadership and engagement capability development for primary healthcare staff (Ward et al., 2024)
- ✓ Build connections between primary healthcare providers, and with others involved in disaster preparedness, response, and recovery within a region to improve the functionality and effectiveness of multi-disciplinary responses in the event of disasters (Sirua et al., 2025; Ward et al., 2024)
- ✓ Value the knowledge that primary health providers have about vulnerable cohorts (and others) and seek their input to the development of disaster-related policy development and planning (Shumake-Guillemot et al., 2015; Ward et al., 2024; Xie et al., 2018).

Resilient primary healthcare workforce

- ✓ Support primary healthcare providers to develop personal disaster plans with their families so they can balance personal and professional caring responsibilities in the event of a disaster (Ward et al., 2024)

Resilient primary healthcare systems

- ✓ Reduce emissions of climate-altering pollutants from primary healthcare facilities (Xie et al., 2018)
- ✓ Adapt physical infrastructure to better withstand climate risks as a key strategy for supporting continuity of care in local communities, and prioritising the safety of primary healthcare staff (Shumake-Guillemot et al., 2015; Sirua et al., 2025)
- ✓ Routinely consider the actual and potential impacts of climate change and identify opportunities to respond and/or mitigate adverse impacts in organisational budgeting and planning processes (Shumake-Guillemot et al., 2015)
- ✓ Identify and implement strategies to improve the resilience of health system leadership and governance, workforce, information systems, essential medical products and technologies, service delivery, and financing (Shumake-Guillemot et al., 2015)

Resilient communities and people

How communities protect the health of at-risk populations from climate hazards

Communities protect the health of vulnerable or at-risk populations from climate hazards by:

- participating in human, social, economic, political, and cultural processes that support information sharing and social capital building to enable preparedness, adaption, and integrated systems of care in the face of disasters (Cuthbertson et al., 2023; Hil et al., 2020; Southwick et al., 2014; Ungar, 2018)
- fostering inclusive, participatory, and community-led approaches that empower those with lived experience to shape disaster planning and responses (Australian Institute for Disaster Resilience, 2020; Blackburn, n.d.; Perotta, 2023)
- tailoring communication and interventions to address the specific needs of diverse and marginalised cohorts (Blackburn, n.d.; Emergency Management Victoria, 2017)
- leveraging local knowledge, networks, and community connectors to bridge gaps in service delivery, especially in rural and remote and other vulnerable communities (Muir & Odgers, 2023; Perotta, 2023; Rawsthorne et al., 2025; Woolcock et al., 2025)
- building confidence in evacuation options through strong social networks to help reduce the risk of injury and death for socially isolated community members (Norris et al., 2007)
- providing and receiving actual practical support and connection to community members, along with connection which can strengthen mental health (Norris et al., 2007) and support resilience to stressors such as Domestic and Family Violence (Unger, 2018) and
- advocating for equitable resource allocation and policy alignment across sectors and tiers of government (Norris et al., 2007; Perotta, 2023; Woolcock et al., 2025).

Social capital plays an important role in disaster planning, response and recovery. It:

- can help prevent ill health (Marshall et al., 2024; Narayanasamy, et al., 2025)
- is a critical enabler of emergent resilience of individuals and communities (Castleden et al., 2011; Curtis et al., 2023; Cuthbertson et al., 2023)

- can be supported and leveraged by primary health care providers due to their close connections to their local communities (Xie et al., 2018)
- can support advocacy for policies which advance health outcomes (Xie et al., 2018).

What (conditions, capabilities, supports) enable community to play this role effectively?

The presence of diverse social networks is key to enabling communities to support the resilience of at-risk community members and communities more broadly. Norris et al., (2007) have identified four sets of networked resources that support community resilience:

- Economic development, including: robust community resource base; and stable livelihoods and equitable distribution of income and assets within the population
- Social capital, including: inter-connected networks and/or organisations which support communication and collaboration across groups during and post-disasters; social interactions that provide actual assistance and connection;
- Information and communication, including: the depth and breadth of social ties that support informal and trusted communication before, during and after disasters;
- clear and timely communication from trusted formal disaster management agencies with communities; and opportunities for collective storytelling about disaster experiences
- Community competence, including: the ability to gather information to learn about risks and to collaborate to make decisions and solve problems.

Community resilience efforts are enabled by:

- emergency management systems that protect lives, reduce injury, minimise damage to local infrastructure and connect community members to services that enable them to remain well during and after a disaster (Norris et al., 2007).
- ongoing education, capacity building, and collaboration among stakeholders, with an emphasis on addressing social determinants of health, reducing inequities, and monitoring population wellness to guide targeted support for those most at risk (Baines & Hanlon, n.d.; Emergency Management Victoria, 2017; Perrota, 2023)
- addressing historical and current power differences between groups, noting that the division of structural power shapes the capacity of individuals and groups to access and use resources (Norris et al., 2007; Panter-Brick in Southwick et al., 20214; Ungar, 2018)
- building relationships between actors that are relevant to the task being undertaken and can adapt to the constraints which are influencing different actors and resilience outcomes (Emergency Management Victoria, 2017; Ungar, 2018)
- reducing exposure to coercive or manipulative relationships (Ungar, 2018)
- engagement processes which are inclusive of diverse peoples with diverse experiences, vulnerabilities and capacities to contribute (Australian Institute of Disaster Resilience, 2020; Blackburn, n.d.; Muir & Odgers, 2023; Rawsthorne et al., 2025).

Protective factors which enable ***individuals*** to be resilient (and thus to be able to help others) include:

- access to stable accommodation, living in a salaried household with fewer dependents, and sense of belonging to a community (Ungar, 2018)
- a sense of hope and dignity (Hegney et al.2007; Panter-Brick in Southwick et al., 20214, p. 6)
- healthy brain development and reduction in toxic stress is key to long-term resilience (Masten in Southwick et al., 2014)
- living in a rural community with close connections with others (including family), adaptability, and community spirit (Hegney et al., 2007).

Opportunities to increase the resilience of communities

Foster relational and networked approaches

- ✓ Enable peer-led research processes - by focusing on strengths, building trusting relationships over time, supporting peer leadership, two-way information sharing and mentoring, flexible processes, and access to known safe spaces; to understand and support the specific priorities of groups often excluded from mainstream disaster processes - such as First Nations residents, people experiencing homelessness, young people, seniors, and CALD communities (Blackburn, n.d.)
- ✓ Leverage other initiatives such as CCQ Zero1 and the relationships which have been developed over time via that program, to bolster the resilience of specific cohorts - such as people experiencing homelessness.
- ✓ Support local dialogue, two-way communication, and community mobilisation as essential functions of the health system (Shumake-Guillemot et al., 2015)
- ✓ Foster place- and community-based or community-led approaches (see Place and community-based and/or community-led approaches section)

Support parents as first responders for children during disasters

- ✓ Provide parents with resources to support their children before, during and after disasters to contribute to the resilience of both (Masten & Obrovic, 2008; Thriving Queensland Kids; 2025).

Demonstrate support before, during and after disasters

- ✓ Enable strategies that help communities to feel supported, and not abandoned, before, during and post-disasters to reduce psychological distress and antisocial behaviours (Norris et al., 2007).
- ✓ Support individual resilience (e.g. via psychological support) to reduce symptoms of poor physical health (Osofsky et a., 2018).
- ✓ Support strategies which enable recovery and wellness of: individuals - e.g. healthy patterns of behaviour, ability to function at home/school/work, quality of life; and communities - e.g. equitable distribution of wellness across community members considering pre-disaster levels of wellness (Norris et al., 2007).

Social capital

- ✓ Identify opportunities to build the capacity of local groups to work with members, and other local organisations to:
    - Gather and make sense of local information
    - Make collective decisions in the interest of community resilience
- ✓ Take action to grow resilience of members and/or the local community
- ✓ Identify opportunities to connect systems of care across community, health and disaster management systems (see Connected health, community and disaster systems section).

Connected health, community, and disaster systems

How growing resilience by better connecting health, community, and disaster management systems of care can protect the health of at-risk populations in the face of climate change and disaster

- Partnerships between communities and emergency services before, during and after disasters can build trust and support collective action during or after disasters, and importantly reinforces the capacities of communities to actively support resilience alongside health and disaster management entities (Emergency Management Victoria, 2017; Fortnam et al., 2024; Rawsthorne et al., 2025).
- Health system resilience is influenced by the resilience of other systems which influence health e.g. families, communities, sanitation, and gender disparities (Fortnam et al., 2023).
- Partnerships between government, academia, civil society organisations and communities are critical to improving understandings of local disaster resilience risks and vulnerabilities, and to responding appropriately (Shumake-Guillemot et al., 2015).
- The Sendai Framework for Disaster Risk Reduction notes the importance of participation by people most likely to be effected by disasters (Dwinantoaji et al., 2021) and although emergency management organisations across Australia often undertake community engagement, there has been very little effort made to gauge the efficacy and impact of this engagement (Taylor et al., 2019).
- Ungar (2018) has noted that "Systems experience more resilience the more they include opportunities to experiment with new solutions, reflect on the impact of experience, and integrate learning into future efforts to adapt.." highlighting the potential value of cross- sectoral or cross-systemic experiments and learning processes to support health resilience.

What conditions, capabilities, supports enable connected systems:

Evidence shows that more connected approaches across community, health and emergency services are enabled by:

- integrated, systems-level approaches and empirically validated tools to assess and address the cascading effects of shocks and stressors (Cheuy, 2016)
- interventions that foster long-term resilience, social inclusion, and the capacity to flourish, rather than merely recover to a 'normal' that may no longer be possible (Cheuy, 2016)
- coordinated policy responses that address structural drivers of vulnerability and promote sustainable, equitable outcomes for current and future generations (OECD, 2024; Tan, 2021).

Opportunities to connect systems to strengthen resilience

- ✓ Actively explore opportunities to improve the capacities of formal and community health systems, and adjacent connected systems, as part of efforts to improve health system resilience (Fortnam et al., 2023)
- ✓ Support participation by groups often excluded from disaster planning processes (e.g. people experiencing homelessness) to ensure that their needs and resourcefulness are reflected in planning, response, and recovery processes (Blackburn, n.d.)
- ✓ Support and learn from locally led experiments intended to improve local resilience (Unger, 2018). In addition to delivering focused results, learnings from these experiments may reveal valuable insights about what it takes to support authentically community-led approaches to supporting resilience.
- ✓ Explore community-led models like Community Emergency Response Teams that are enabled by local neighbourhood centres and can connect local knowledge and assets (including volunteers) with formal disaster management planning and response processes, enabled by training, organisational infrastructure, and communication processes between hyper-local and other disaster processes (Baines & Hanlon, n.d.)
- ✓ Leverage core/BAU PHN processes and connections with emergency management, primary health, and community systems to identify opportunities to improve connection between system processes (e.g. investment, planning, HR, infrastructure) to bolster the resilience of at-risk populations within the region.

Place and community-based and/or community-led systems approaches

Place attachment can support individual and community-wide recovery (Boon, 2013; Hegney et al., 2007; Norris et al., 2007) with First Nations peoples and people in rural and remote communities (in particular) taking inspiration and hope from signs of resilience and recovery from the land (e.g. trees propagating, grasses growing back after bushfires) (Hegney et al., 2007). Principle 3 of the Australian Disaster Recovery Framework (Australian Institute for Disaster Resilience, n.d.) is "Use community-led approaches". Fire to Flourish (2024) shared the following learnings from their experiences in community-led disaster resilience:

- Community members think systemically about the causes of local challenges and the interconnected responses required to grow resilience. Well-facilitated collaborative processes support knowledge sharing and strengthen social capital and collective action. Communities also welcome partnerships with Councils, emergency service organisations and others which are based on mutual respect and shared responsibilities for resilience.
- Indigenous leadership supports self-determination and resilience and can involve knowledge sharing that benefits the resilience of the wider community.
- Communities with effective relational and transparent local governance processes are better able to take collective action to respond to disasters and support long-term recovery and resilience. Robust governance is necessary to enable inclusive and accountable community-led decision making, to reduce conflict and support equitable outcomes.
- Building targeted capabilities (e.g. disaster-related, cultural awareness, group facilitation) supports the success of community-led processes
- Funding is a critical enabler of local initiatives, action and outcomes with seed funding often enabling communities to attract additional resources.

Community-led approaches require collaborative planning and community-driven decision making (Neighbourhood Centres Qld, 2024). Locally-led resilience reduces dependence on external aid and can support faster post-disaster recovery processes and help to maintain residents' sense of belonging (Norris et al., 2007).

Neighbourhood Centres have established and trusted relationships with many community members and a Statewide strategy to support disaster resilience in communities across Queensland (Muir & Odgers, 2023). Neighbourhood Centres currently support local individuals and networks before, during and after disasters by:

- Developing local resilience by participating in local preparedness planning and evolving relationships with community members to understand and advocate for local priorities
- Disseminating information and supporting community members to self-organise in the lead up to, and following a disaster
- Providing places of safety and shelter (assuming the Centres themselves are not disaster impacted) during disasters and emergency relief in the days following
- Supporting communities to recover and delivering flexible supports (e.g. local connection events and disaster preparation training) that build resilience to future events
- Advocating for communities to inform policy and funding decisions
- Supporting collaboration, learning and capability development (Muir and Odgers (2023).

Equitable access to local community infrastructure supports health and resilience outcomes (Perrota, 2023). The CCQ Health Needs Assessment (CCQ PHN, n.d.) notes that healthy communities with access to safe spaces and opportunities to engage, play and be active was the number one priority identified by residents with disaster resilience and readiness the ninth priority.

What (conditions, capabilities, supports) enable effective place and community-based and/or community led approaches to protect the health of those most at-risk?

The Fire to Flourish (n.d.) initiative advocates long-term and deep partnerships with disaster impacted communities which involve ongoing learning, adaption, and evolution while:

- Exploring current and previous disaster experiences
- Identifying local strengths, opportunities, and pathways to resilience
- Co-designing practical initiatives to strengthen communities and influence policy
- Create and sustain impacts which help to prevent, respond to, and recover from disasters.

According to the St Luke's Health Initiative (cited in Chey, 2016, pp. 3-4) nurturing resilience and addressing the social determinants of health can be enabled by:

- Adopting a long-term commitment to resilience-building
- Nurturing pre-existing, community-based relationships of care
- Being an ally not an expert
- Investing in organising which supports both productive confrontation and collaboration

- Investing in advocacy
- Starting with local strengths and assets
- Supporting peer learning
- Surrendering the need to control community-led and emergent processes and
- Nurturing shared leadership.

Place-based approaches to improving healthcare in rural and remote communities requires:

- local action and community empowerment, and alignment of policies and programs to support community-led solutions (Woolcock et al., 2025).
- community participation in shared commissioning and evaluation frameworks; increasing opportunities to pool funds and align compliance reporting so that more time can be spent on care; reviewing pricing models and workforce policies across health, aged care and disability providers to benefit both workers and employers; and aligning local and national priorities (Woolcock et al., 2025).

Place-based citizen participation and collective action are supported by:

- Shifting policy focus from risks and hazards to community resilience; including revision of disaster planning processes at local, state, and national levels to better reflect community resilience priorities and processes and supportive change management strategies (Emergency Management Victoria, 2017)
- Inspired, committed, grass-roots leadership from people with a strong attachment to the place; opportunities for community members to play meaningful roles; a small, active core, supported by a larger network of community members that can be activated for specific intents; opportunities for engagement that include diverse community members with different abilities and interests; and structures that support participation, leadership and cooperation and relationships with other communities (Norris et al., 2007)
- Capacity building to engage constructively in group processes, resolve conflicts, collect, and analyse data and oppose anti-social influences (Norris et al., 2007)
- Deepening community connections (Cheuy, 2016).

Opportunities to foster place and community-based and/or led resilience

Take a long-term view

- ✓ Be clear about which elements of the program can realistically (within available resources) be *community-led* during the first three-years of Resilient CARE and which might rather be place- or community-based or informed.
- ✓ Explore what actions can be taken and what supports provided to enable *community leadership* of aspects of the program, and support partners to learn what it takes to grow the foundations of greater participation, leadership and resilience over time.

Neighbourhood Centres

- ✓ Partner with Neighbourhood Centres in each community and with Neighbourhood Centres Queensland to identify opportunities for Resilient CARE to support Centres to enable place-based and community-based

or led action to improve resilience in line with the Queensland Neighbourhood Centres Disaster Resilience Strategy 2023-2026

Social and community infrastructure

- ✓ Consider opportunities to activate local social infrastructure (e.g. parks, libraries and commons spaces) in ways that build connections to place, enable stewardship and prosocial use, facilitate inter-personal connections and problem solving and inspire awe and calm as key foundations to resilience (Reimaging the Civic Commons, 2025).
- ✓ Explore opportunities for funded initiatives to contribute to the operation and activation of community spaces and infrastructure.
- ✓ Gather and share evidence regarding examples of resilience building enabled through community infrastructure.
- ✓ Advocate for investment in the development, activation and maintenance of community spaces and infrastructure that support community connection, participation and the development of relationships and social capital that are considered essential to emergent resilience.

Connections to place

- ✓ Learn from, invest in, and seek to reflect First Nations approaches which are 'Country-led' in disaster plans, responses, and recovery (Keevers et al., 2024)
- ✓ Explore opportunities to convene conversations and initiatives that help to deepen connections with place, and between members who live in that place (Cheuy, 2016)
- ✓ Support activities which build or strengthen a 'sense of place' as this is strongly associated with individual resilience and a desire to remain in a community post-disaster (Boon, 2013; Hegney et al., 2007)
- ✓ Support opportunities for the design and implementation of disaster planning and responses that are led, designed or informed by local community members (Baines & Hanlon, n.d.; Norris et al., 2007; Woolcock et al., 2025)

Health equity in resilience

How equity-focused approaches protect the health of at-risk populations in the face of climate change and disaster

A healthier population is a more resilient population (Shumake-Guillemot et al., 2015).

Disasters and health emergencies result in new, or increased vulnerabilities and exacerbate existing health inequities (WHO, 2025).

"...The protection of health cannot be disentangled from the social determinants of health equity." Meaning that intersectoral action is needed to address related challenges such as welfare, education and food secruity (WHO, 2025, p. 119).

Advancing health equity directly supports resilience by fostering shared humanity, dignity, and system-level solutions that help communities withstand and recover from challenges (Sweetland & Connolly, 2025).

Addressing the social determinants of health, including engagement with employment and social networks, through targeted interventions enhances both personal and collective capacity to adapt to adversity.

NGOs can play valuable roles in advocating for policy and practice change to improve health equity and the social determinants of health inequities (Musolino et al., 2024).

What (conditions, capabilities, supports) enable more equitable approaches to improving climate health and disaster resilience?

Integrating health equity into public health and climate strategies, such as creating walkable neighbourhoods and green spaces, can strengthen community resilience to environmental and health-related shocks (Perotta, 2023). Strategies must, however, intentionally prioritise equity to avoid exacerbating existing disparities and to tackle structural and contextual drivers of inequity (Behrens et al., 2022; Fortnam et al., 2024). Strategies which involve community engagement and decentralization of decision making to local communities can help to improve health equities and resilience (Abimbola et al., 2019).

Reducing health inequities requires a focus on strengthening resilience, providing strong leadership, whole-of-government approaches, reliable data and applying, and learning from evidence (WHO, 2025).

Strategies to improve health equity in the face of disasters include ensuring that preparedness and response activities:

- Can adapt to changing contexts
- Are tailored (in terms of what, and how much support is offered) to the particular needs of vulnerable cohorts (WHO, 2025).

Opportunities to improve health equity and bolster resilience

- ✓ Advocate for universal access to quality essential services and invest in strategies which reduce poverty and inequality to improve health (Musolino et al., 2024; Shumake-Guillemot et al., 2015)
- ✓ Embed an equity focus in primary health service commissioning and delivery
- ✓ Prioritise efforts to bolstering the resilience of cohorts and geographic communities which are most likely to be vulnerable before, during and after a disaster (see Vulnerable Cohorts reference list)
- ✓ Contribute to actions which reduce the impacts of climate change (e.g. decarbonizing health systems), increase resilience and preparedness and reduce the long-term impacts of climate-related health risks (WHO, 2025).

Conclusion

This review has provided a snapshot summary of key academic and practice literatures describing evidence and practice with potential to inform the implementation and iteration of the Resilient CARE program. It highlights relevant examples and learnings, with a strong focus on Australian contexts, to support practitioners working to implement actions to improve climate health and disaster resilience in the CCQ region. The appendices and categorised reference lists which follow have the same purpose. Where a topic captures the reader's interest, a more detailed dive into relevant literature is encouraged.

Appendices

Promising examples

Example	Summary
Community Engagement for Disaster Risk Reduction https://communityrisksreduction.org.au	University of Melbourne designed, relationship-building initiative to facilitate and support community connections and actions to prepare for disasters.
Mid Coast Community Connector https://communityconnector.com.au/	Concierge and welcoming service to help address critical workforce shortages and foster community development
Community Early Response Teams enabled by local Neighbourhood Centres Case Study | Community Early Response Teams: Locals supporting locals - Neighbourhood Centres Queensland	Community-led infrastructure connecting and supporting volunteers to contribute to disaster planning and to provide initial response during and after an emergency.
Peer-led model for disaster resilience Case Study | Resilient Kurilpa: Rising above the waters - Neighbourhood Centres Queensland	Sunshine Coast model supporting people experiencing homelessness during disasters.
Fire to Flourish What we do - Fire to Flourish	A collaborative community-led program advancing disaster recovery and long-term resilience
National Indigenous Disaster Resilience National Indigenous Disaster Resilience - School of Social Sciences	Initiative which evolved from Fire to Flourish and is focused on enhancing the resilience of Indigenous communities in the face of disasters
California Health in All Policies (HiAP) Task Force	Collaborative approach to improving the health of all people by embedding a focus on health, equity and sustainability into decision making by all government portfolios
Adaptive and Resilient Communities Cohort Adaptive and Resilient Communities Cohort	Canadian initiative designed to catalyse community-level actions to advance local climate adaption and resilience projects.

Practical frameworks and tools

Example	Summary
Operational framework for building climate resilient health systems Operational framework for building climate resilient health systems	WHO framework outlining opportunities to strengthening the 10 core elements of health systems

The Waminda Model of Care Supporting recovery, healing and wellbeing with Aboriginal communities of the southeast coast of Australia: a practice-based study of an Aboriginal community-controlled health organisation's response to cumulative disasters | BMC Health Services Research	A bundle of practices to support First Nations people plan for, respond to and recover from cumulative and compounding disasters
Communicating Now: Framing for Health Equity Communicating Now: Framing for Health Equity - FrameWorks Institute	Toolkit to support communication about community-led, collaborative approaches to eliminating health inequities
Framing adversity, trauma and resilience Framing Adversity, Trauma, and Resilience - FrameWorks Institute	A tool to support the translation of knowledge about adversity, trauma and resilience in policies, programs and community efforts.
Community Engagement for Disaster Resilience Community Engagement for Disaster Resilience Handbook	A handbook outlining opportunities and approaches to undertake, monitor, review and evaluate community engagement in disaster resilience activities.
Queensland Neighbourhood Centres Strategy for Disaster Resilience (2023- 2026) Disaster Resilience Strategy - Neighbourhood Centres Queensland	A plan to strengthen the resilience of Centres and communities facing a range of natural disasters
Community Resilience Framework Community Resilience Framework for Emergency Management | Emergency Management Victoria	Developed by Emergency Management Victoria (2017) the framework includes resilience characteristics, potential self-assessment questions, examples, and measures
Deepening Community Initiatives BOOK | 10 - A Guide for Deepening Community BOOK | 10 - A Guide for Deepening Community	Guide to support community champions and change makers to deepen community
Disaster Resilience Education for Young People handbook aidr-handbook_dreyp_2021.pdf	Developed by the Australian Institute for Disaster Resilience to support young people as agents of change before, during and after disasters.
Thriving Queensland Kids in Disasters Project Library Thriving Kids in Disasters (TKiD) Thriving Kids in Disasters - 2024 - Thriving Queensland Kids Partnership	Links to 70+ resources focusing on resilience, climate change, disaster management and young people
Factsheet: Working with Indigenous peoples and communities Grant application dos and don'ts Working-with-Indigenous-people-fact-sheet-20240611.pdf	Developed by Fire to Flourish to support the development of projects which promote self-determination and community leadership and respect cultural protocols.

Supporting children with disability in natural disasters Natural disasters: kids with disability | Raising Children Network	Dot point summarises of the potential impacts of disasters for children with disability and how to best support them.
Supporting infants and children in disasters: A practice guide. Supporting infants and children in disasters: A practice guide - Emerging Minds	Set of guides to support children and families through the phases of planning, responding and recovering from disasters with specific tools focused on bushfires, floods and droughts
Roadmap to improving outcomes for people with disability in Disaster Management InclusivePracticeInDisasterManagement-Advocacy-Resource.pdf	Prepared by People with Disability Australia to identify challenges faced by people with disability in the face of disasters and recommendations for change.
Disability Inclusive Disaster Risk Reduction: Framework and toolkit for collaborative action DIDRR_Framework_FULL-DOC_FINAL_2024.pdf	Outlines how different disaster management, government and emergency services can reduce the risks and increase resilience of people with disability.

Learning resources

Resource	Summary
Resilience Canopy www.resiliencecanopy.com.au	Aiming to train 2000 resilience practitioners in 500 communities across Australia by 2030
DisasterWISE www.diasterwise.com.au	Dynamic + transformative learning networks for disaster resilience practitioners Australia-wide. Seeded by Fire to Flourish
Indigenous perspectives on disaster recovery Indigenous Peoples and Disaster Recovery	Webinar describing impacts experienced by First Nations peoples, along with research, policy and practice insights.
Community inclusive recovery practice: Working with Indigenous communities in recovery from disasters working-with-indigenous-communities-in-recovery-module.pdf	Learning module intended to grow understanding of the unique experiences, strengths and resources of Indigenous peoples facing with disasters.
Framework for disaster resilience education with homeless communities A framework for disaster resilience education with homeless communities | Disaster Prevention and Management | Emerald Publishing	Lived experience and trauma-informed tool
Foundations for building a neighbourhood strategy Foundations for Building a Neighbourhood Strategy	Six module online course for developing citizen- centred local change strategies (Canadian)

Categorised reference list

Health impacts of disasters

Bailie, J., Matous, P., Apelt, B., Longman, J., McNaught, R., Morgan, G., Ekanayake, K. & Bailie, R. (2024).

Flooding and health in Australia: a scoping review and coauthorship analysis of published research. *BMJ Open*, *14*(12), e089039. https://doi.org/10.1136/bmjopen-2024089039

Choudhary, Y. & Kumar, H. (2021). Climate Change and the Health Sector, Healing the World. In A. Thomas, K. S. Reddy, D. Alexander & P. Prabhakaran, *Climate Change and the Health Sector: Healing the world* (pp. 131–138). https://doi.org/10.4324/9781003190516-17

Cianconi, P., Betrò, S. & Janiri, L. (2020). The Impact of Climate Change on Mental Health: A Systematic Descriptive Review. *Frontiers in Psychiatry*, *11*, 74. https://doi.org/10.3389/fpsyt.2020.00074

Huang, Y., Wong, H. & Fu, Y. (2020). Resilience and depression among the survivors of the 2013 Yaan earthquake. *Journal of Social Work*, *20*(6), 817–833. Resilience and depression among the survivors of the 2013 Yaan earthquake - Yunong Huang, Hung Wong, Yao Fu, 2020

Hughes, L., Hanna, E. & Fenwick, J. (2016). *The Silent Killer: Climate change and the health impacts of extreme heat*. https://www.climatecouncil.org.au/resources/silentkillerreport/

Lokotola, C. L., Mash, R., Naidoo, K., Mubangizi, V., Mofolo, N. & Schwerdtle, P. N. (2023). Climate change and primary health care in Africa: A scoping review. *The Journal of Climate Change and Health*, *11*, 100229. Climate change and primary health care in Africa: A scoping review - ScienceDirect

Primary Healthcare

Burns, P., Pendrey, C., & Murtagh, J. (2025). Clinical insights: Impact of disasters on health. *Australian Journal of General Practice*, *54*(1-2), 42-50. Clinical insights: Impact of disasters on health | Australian Journal of General Practice

Dwinantoaji, H., Widyasamratri, H., Karmilah, M. & Kanbara, S. (2021). Chapter 12: Climate Change Adaptation Strategies in Primary Health Care. In R. Djalante, *Integrated Research on Disaster Risks, Contributions from the IRDR Young Scientists Programme* (pp. 215–230). https://doi.org/10.1007/978-3-030-55563-4_12

Keevers, L., Mackay, M., Cutmore, S. A., Falzon, K., Finlay, S. M., Lukey, S., ... & Olcon, K. (2024). Supporting recovery, healing and wellbeing with Aboriginal communities of the southeast coast of Australia: a practice-based study of an Aboriginal community-controlled health organisation's response to cumulative disasters. *BMC Health Services Research*, *24*(1), 1068.Supporting recovery, healing and wellbeing with Aboriginal communities of the southeast coast of Australia: a practice-based study of an Aboriginal community-controlled health organisation's response to cumulative disasters | BMC Health Services Research

Mawardi, F., Lestari, A. S., Randita, A. B. T., Kambey, D. R. & Prijambada, I. D. (2020). Strengthening Primary Health Care: Emergency and Disaster Preparedness in Community with Multidisciplinary Approach. *Disaster Medicine and Public Health Preparedness*, *15*(6), 675–676. https://doi.org/10.1017/dmp.2020.143

Musolino, C., Freeman, T., Flavel, J., & Baum, F. (2024). Non-government advocacy for health equity: evidence from Australia. *Health Promotion International*, *39*(6), daae148. https://doi.org/10.1093/heapro/daae148

Ward, A., Martin, S., Richards, C., Ward, I., Tulleners, T., Hils, D., Wapau, H., Levett-Jones, T. & Best, O. (2024). Enhancing primary healthcare nurses' preparedness for climate-induced extreme weather events. *Nursing Outlook*, *72*(5), 102235. https://doi.org/10.1016/j.outlook.2024.102235

World Health Organisation. (2025). World report on social determinants of health equity. https://creativecommons.org/licenses/by-nc-sa/3.0/igo/

Vulnerable cohorts

Astill, S., & Miller, E. (2018). “We expect seniors to be able to prepare and recover from a cyclone as well as younger members of this community”: Emergency Management’s Expectations of Older Adults Residing in Aging, Remote Hamlets on Australia’s Cyclone-Prone Coastline. *Disaster Medicine and Public Health Preparedness*. 2018;12(1):14-18. doi:10.1017/dmp.2017.33

Boon, H. (2013). Preparedness and vulnerability: An issue of equity in Australian disaster situations. *Australian Journal of Emergency Management, The*, *28*(3), 12-16. Preparedness and vulnerability: An issue of equity in Australian disaster situations | The Australian Journal of Emergency Management

Brookfield, S. & Fitzgerald, L. (2018). Homelessness and natural disasters: the role of community service organisations. Australian Institute for Disaster Resilience. Homelessness and natural disasters: The role of community service organisations

Burns, P., Pendrey, C., & Murtagh, J. (2025). Clinical insights: Impact of disasters on health. *Australian Journal of General Practice*, *54*(1-2), 42-50. Clinical insights: Impact of disasters on health | Australian Journal of General Practice

Chandonnet, A. (2021). Emergency resilience in culturally and linguistically diverse communities: challenges and opportunities. Emergency resilience in culturally and linguistically diverse communities: challenges and opportunities

Chowdhury, T. J., Arbon, P., Kako, M., Muller, R., Steenkamp, M., & Gebbie, K. (2022). Understanding the experiences of women in disasters: Lessons for emergency management planning. *The Australian Journal of Emergency Management*, *37*(1), 72-77. Understanding the experiences of women in disasters: Lessons for emergency management planning

Crawford, T., Villeneuve, M., Yen, I., Hinitt, J., Millington, M., Dignam, M., & Gardiner, E. (2021). Disability inclusive disaster risk reduction with culturally and linguistically diverse (CALD) communities in the Hawkesbury-Nepean region: A co-production approach. *International Journal of Disaster Risk Reduction*, *63*, 102430. https://doi.org/10.1016/j.ijdrr.2021.102430

Every, D., & Richardson, J. (2018). A framework for disaster resilience education with homeless communities. *Disaster Prevention and Management: An International Journal*, *27*(2), 146-158. A framework for disaster resilience education with homeless communities | Disaster Prevention and Management | Emerald Publishing

Every, D., Richardson, J., & Osborn, E. (2019). There's nowhere to go: counting the costs of extreme weather to the homeless community. *Disasters*, *43*(4), 799-817. https://doi.org/10.1111/disa.12400

Hayes, H. & Rya, N. (2024). Tailoring emergency and disaster preparedness engagement approaches for culturally and linguistically diverse communities. *The Australian Journal of Emergency Management, 39(3),* 42-48. Tailoring emergency and disaster preparedness engagement approaches for culturally and linguistically diverse communities | The Australian Journal of Emergency Management

Keevers, L., Mackay, M., Cutmore, S. A., Falzon, K., Finlay, S. M., Lukey, S., ... & Olcon, K. (2024). Supporting recovery, healing and wellbeing with Aboriginal communities of the southeast coast of Australia: a practice-based study of an Aboriginal community-controlled health organisation’s response to cumulative disasters. *BMC Health Services Research*, *24*(1), 1068.Supporting recovery, healing and wellbeing with Aboriginal communities of the southeast coast of Australia: a practice-based study of an

Aboriginal community-controlled health organisation's response to cumulative disasters | BMC Health Services Research

Kelly, L. M., Hajistassi, M., Ramasundram, S. (2024). Migrant and refugee communities strengthening disaster resilience. The Australian Journal of Emergency Management, 39(3), 49-58. Migrant and refugee communities strengthening disaster resilience | The Australian Journal of Emergency Management

Kwan, C. & Walsh, C. (2017). Seniors' disaster resilience: A scoping review of the literature. *International Journal of Disaster Risk Reduction*. https://doi.org/10.1016/J.IJDRR.2017.09.010

Molyneaux, R., Gibbs, L., Bryant, R. A., Humphreys, C., Hegarty, K., Kellett, C., ... & Forbes, D. (2020). Interpersonal violence and mental health outcomes following disaster. *BJPsych open*, *6*(1), e1. Interpersonal violence and mental health outcomes following disaster | BJPsych Open | Cambridge Core

Mortimer, A., Egbelakin, T., & Sher, W. (2023). Making the case for policy interventions in disaster governance and management in Australia to better support internally displaced people. *International journal of disaster resilience in the built environment*, *14*(4), 471-494.https://doi.org/10.1108/IJDRBE-11-2022-0108

Parkinson, D. & Zara, Cl. (2013). The hidden disaster: Domestic violence in the aftermath of natural disaster. *Australian Journal of Emergency Management,* 28(2), 28-35. The hidden disaster: Domestic violence in the aftermath of natural disaster

Parkinson, D. (2019). Investigating the increase in domestic violence post disaster: An Australian case study. *Journal of interpersonal violence*, *34*(11), 2333-2362. https://doi.org/10.1177/0886260517696876

Peden, A. E., Heslop, D., & Franklin, R. C. (2023). Weather-related fatalities in Australia between 2006 and 2019: applying an equity lens. *Sustainability*, *15*(1), 813. Weather-Related Fatalities in Australia between 2006 and 2019: Applying an Equity Lens

Perry J, Eggington A & Alfrey K (2024) Thriving Kids in Disasters. Thriving Queensland Kids Partnership, Brisbane. TQKP-TKiD-full-report.pdf

Radel, K., Sukumaran, A., & Daniels, C. (2023). Incorporating First Nations knowledges into disaster management plans: an analysis. *The Australian Journal of Emergency Management*, *38*(2), 36-41. Incorporating first nations knowledges into disaster management plans: An analysis

Spencer, G., & Thompson, J. (2024). Children and young people's perspectives on disasters–Mental health, agency and vulnerability: A scoping review. *International Journal of Disaster Risk Reduction*, *108*, 104495. https://doi.org/10.1016/j.ijdrr.2024.104495

Stanley, J. (2017). Equity in recovery. In *Urban planning for disaster recovery* (pp. 31-45). Butterworth-Heinemann. Equity in Recovery - ScienceDirect

World Health Organisation. (2017). *Vulnerability and vulnerable populations: Community disaster risk management*. *Vulnerability and Vulnerable Populations*

Place-based, Community-based and/or led approaches

Australian Institute for Disaster Resilience. (2020). *Community Engagement for Disaster Resilience* (Australian Disaster Resilience Handbook Collection).

https://knowledge.aidr.org.au/media/7989/aidr_handbookcollection_communityengagementfo

Baines, D. & Hanlon, D. (n.d.). *Case Study - Community Early Response Teams: Local supporting locals* Retrieved June 2, 2025, from https://ncq.org.au/wpcontent/uploads/20240827_NCQ_DR_CaseStudy_CERT_WEB.pdf

Blackburn, J. (n.d.). *Case Study - Listening to the experts: The power of lived experience in leading community initiatives*. Retrieved June 2, 2025, from https://ncq.org.au/wpcontent/uploads/20240827_NCQ_DR_CaseStudy_SunshineCoast_WEB.pdf

Boon, H. J. (2014). Disaster resilience in a flood-impacted rural Australian town. *Natural hazards*, *71*(1), 683-701. Disaster resilience in a flood-impacted rural Australian town | Natural Hazards

Castleden, M., McKee, M., Murray, V. & Leonardi, G. (2011). Resilience thinking in health protection. *Journal of Public Health*, *33*(3), 369–377. Resilience thinking in health protection | Journal of Public Health | Oxford Academic

Curtis, P., Glover, B. & O'Brien, A. (2023). *The Preventative State: Rebuilding our Local, Social and Civic Foundations*. the-preventative-state.pdf

Country to Coast PHN (n.d.). *Community Health and Wellbeing Assessment 2025-28: Technical Report25–28 | TECHNICAL REPORT*.

Cuthbertson, J., Archer, F., Robertson, A. & Rodriguez-Llanes, J. (2023). A Socio-Health Approach to Improve Local Disaster Resilience and Contain Secondary Crises: A Case Study in an Agricultural Community Exposed to Bushfires in Australia. *Prehospital and Disaster Medicine*, *38*(1), 3–10. A Socio-Health Approach to Improve Local Disaster Resilience and Contain Secondary Crises: A Case Study in an Agricultural Community Exposed to Bushfires in Australia | Prehospital and Disaster Medicine | Cambridge Core

Goulden, H. (2025). *Community, not catastrophe: What a "whole society" approach to preparedness really means* (p. 52).

Hegney, D., Buikstra, E., Baker, P., Rogers-Clark, C., Pearce, S., Ross, H., King, C. & Watson- Luke, A. (2007). Individual resilience in rural people: a Queensland study, Australia. *Rural and Remote Health*.

Masten, A. S. & Obradovic, J. (2008). Disaster Preparation and Recovery: Lessons from Research on Resilience in Human Development. *Ecology and Society*, *1*(13). https://www.jstor.org/stable/pdf/26267914.pdf

Muir, L. & Odgers, N. (2023). *QLD Neighbourhood Centres: Strategy for Disaster Resilience 2023-2026*. https://ncq.org.au/wp- content/uploads/20240716_NCQ_DisasterResilienceStrategy_WEB.pdf

Narayanasamy, S., Pedrana, A., Gibney, K. B., Gibbs, L. & Hellard, M. E. (2025). Preparing Australia for future pandemics: Strengthening trust, social capital and resilience. *Medical Journal of Australia*, *10*(222), 488–492. https://doi.org/10.5694/mja2.52652

Neighbourhood Centres Queensland (2024). Understanding community-led disaster recovery.

Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F. & Pfefferbaum, R. L. (2008). Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness. *American Journal of Community Psychology*, *41*(1–2), 127–150. https://doi.org/10.1007/s10464-007-9156-6

Osofsky, H. J., Weems, C. F., Graham, R. A., Osofsky, J. D., Hansel, T. C. & King, L. S. (2018). Perceptions of Resilience and Physical Health Symptom Improvement Following Post Disaster Integrated Health

Services. *Disaster Medicine and Public Health Preparedness*, *13*(2), 223–229. https://doi.org/10.1017/dmp.2018.35

Panter-Brick, C. (2023). Pathways to resilience and pathways to flourishing: Examining the added-value of multisystem research and intervention in contexts of war and forced displacement. *Development and Psychopathology*, *35*(5), 2214–2225. https://doi.org/10.1017/s095457942300113x

Rawsthorne, Howard, A., Joseph, P. & Massola, C. (2025). Harnessing Community Perspectives in Disaster Management (Policy Insights Paper). APPI_Rawsthorne_et_al_Policy_Insights_Paper_.pdf

Taylor, M., Ryan, B. & Johnston, K. A. (2020). The missing link in emergency management: Evaluating community engagement. *Australian Journal of Emergency Management*, *35*(1). The missing link in emergency management: evaluating community engagement | AJEM Research

Wilkins, C. H. (2018). Efective Engagement Requires Trust and Being Trustworthy. *Medical Care*, *56*(10), S6–S8. https://doi.org/10.1097/mlr.0000000000000953

Climate health and disaster resilience

Australian Institute for Disaster Resilience. (2021). Indigenous perspectives on disaster recovery. https://youtu.be/Xb1bWLiTsxM?si=tNuuG51i7PEeYA9A

ClimaHealth. (n.d.) Climate & Health Explained. Chapter 1: Linking Climate & Health - ClimaHealth

Emergency Management Victoria (2017). *Community Resilience Framework for Emergency Management* (p. 48). https://www.emv.vic.gov.au/how-we-help/resilience/community-resilience-framework-for-emergency-management

Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C. & Yehuda, R. (2014). Resilience definitions, theory, and challenges: Interdisciplinary perspectives. *European Journal of Psychotraumatology*, *5*(1), 25338. https://doi.org/10.3402/ejpt.v5.25338

Tan, S. B. (2021). Measuring community resilience: A critical analysis of a policy-oriented indicator tool. *Environmental and Sustainability Indicators*, *12*, 100142. https://doi.org/10.1016/j.indic.2021.100142

Xu, R., Li, S., Guo, S., Zhao, Q., Abramson, M. J., Li, S. & Guo, Y. (2020). Environmental temperature and human epigenetic modifications: A systematic review. *Environmental Pollution*, *259*, 113840. https://doi.org/10.1016/j.envpol.2019.113840

Connected systems and resilience

Behrens, D. A., Rauner, M. S. & Sommersguter-Reichmann, M. (2022). Why Resilience in Health Care Systems is More than Coping with Disasters: Implications for Health Care Policy.

Schmalenbach Journal of Business Research, *74*(4), 465–495. https://doi.org/10.1007/s41471- 022-00132-0

Hil, R., Holdworth, L & Brennan, C. (2020). *Being Lonely: Making sense of Australia's epidemic of social and ecological disconnection*. Ngara Institute & Resilient Byron. Being Lonely — Plan C

Cheuy, S. (2016). *The Case for Cultivating Community Resilience: Adapting to Challenges, Sustaining Hope* (Community Change Series). https://ncq.org.au/wp- content/uploads/Tamarack_Case-for-Cultivating-Community-Resilience.pdf

Fortnam, M., Hailey, P., Witter, S. & Balfour, N. (2024). Resilience in interconnected community and formal health (and connected) systems. *SSM - Health Systems*, *3*, 100027. https://doi.org/10.1016/j.ssmhs.2024.100027

OECD. (2024). *How's Life? 2024: Well-being and Resilience in Times of Crisis*. https://www.oecd.org/en/publications/how-s-life-2024_90ba854a-en.html

Ungar, M. (2018). Systemic resilience: Principles and processes for a science of change in contexts of adversity. *Ecology and Society*, *23*(4). https://www.jstor.org/stable/pdf/26796886.pdf

Health equity

Abimbola, S., Baatiema, L. & Bigdeli, M. (2019). The impacts of decentralization on health system equity, efficiency and resilience: a realist synthesis of the evidence. *Health Policy and Planning*, *34*(8), 605–617. https://doi.org/10.1093/heapol/czz055

Carter, L. (2025). Thriving Kids in Disasters Youth Engagements Report. Thriving Queensland Kids Partnership. Brisbane. TKiD-Community-Engagement-Report-1.pdf

Collaborating4Inclusion. (2024). Disability inclusive disaster risk reduction framework and toolkit for collaborative action. Centre for Disability Research and Policy, University of Sydney. aidr.org.au/events/35671?locationId=48611

People with Disability Australia. (2024). *Roadmap to improving outcomes for people with disability in disaster management*. Improving Outcomes for People with Disability in Disaster Management - People with Disability Australia

Perrotta, K. (2023). *Climate change, population health and health equity: Public health strategies and five local climate solutions that produce health and health equity benefits*.

Sweetland, J. (2024). *Framing Adversity, Trauma, and Resilience*.

Sweetland, J. & Connolly, N. (2025). *Communicating Now: Framing for Health Equity*.

Woolcock, K., Gregg, J. & Groth, A. (2025). *Perspectives Brief No. 34: Policy alignment for place- based solutions for better health outcomes in rural and remote communities*.

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