Supporting community recovery: COVID-19 and beyond

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ABSTRACT

The rapidly evolving COVID-19 pandemic has created an unprecedented health, social and economic crisis, the long-term effects which are still unknown. It is clear, however that successful recovery will require strong community mobilisation, engagement and participation.

Recovery is about regeneration, building back smarter and better following a disaster event, while providing opportunities to contribute to a more resilient and sustainable community for the future.

Successful recovery recognises that both communities and individuals have a range of complex and interrelated recovery needs. These can be addressed within a holistic framework emphasising seven 'community capitals' (natural, social, financial, cultural, political, built and human).

This summary document is provided for further discussion and to support agencies in their recovery planning and actions in the current COVID crisis as well as other disasters.

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BACKGROUND

In 2015, as part of the Resilient New Zealand Project,[1] IAG funded work to explore the role of business in community recovery following disasters. The resulting framework examined the question: How can business disaster preparedness, planning and recovery actions facilitate community disaster preparedness and recovery? (MacDonald, et al., 2015).

As part of an MBIE COVID-19 Innovation Acceleration Funded project to address the psychosocial needs of the population in response to the COVID-19 pandemic, the 2015 framework needed to be reviewed and updated.

This revised document also has community recovery at its core but with a broader focus than the original framework. It is provided as a basis for further discussion and to support a range of agencies in their recovery planning and actions.

A related document, also part of this same MBIE project, presents an updated evidence-base for psychosocial recovery and support in the COVID-19 context (Mooney et al., 2020).

The references included in this document should be regarded as indicative of relevant research; they are not intended as a comprehensive review. Wherever possible, use has been made of international frameworks and models of recovery that are evidence based (e.g., AIDR, 2018) and supported by recent research relevant to the COVID-19 pandemic.

[1] http://resilientnewzealand.co.nz

UNDERSTANDING RECOVERY

Recovery is about more than simply restoring or replacing physical assets and infrastructure or providing rehabilitation, health or welfare services following a disaster (AIDR, 2018; Gibbs et al., 2019). It involves the "coordinated efforts and processes used to bring about the immediate, medium and long-term holistic regeneration and enhancement of a community following an emergency" (MCDEM, 2019, p.7).

In the COVID-19 context, recovery is one of the six phases of pandemic action: Plan for It, Keep It Out, Stamp It Out, Manage It, Manage It Post-Peak, Recovery From It (Ministry of Health, 2017). In reality though the experience of COVID-19, especially for nations that have effectively controlled the spread of the virus, at least for some time, all six phases may be operating concurrently.

Recovery is not about a return to 'normality' or pre-crisis conditions, it is more about restoration, learning, building back smarter and better to create a 'new normal' that is responsive to a range of experiences and lifestyles. It is about individuals and communities being able to live a life they value, even if it is different to the life they were leading before (AIDR, 2018). In theory, while building back smarter and better is a desirable goal[2], past experience has shown that in practice it is challenging to implement (Fernandez & Ahmed, 2019).

Notwithstanding, recovery can provide opportunities to enhance social and natural environments, infrastructure and economies, and thereby contribute to a more resilient and sustainable community (Gibbs, et al., 2019; AIDR, 2018). Successful recovery recognises that individuals, groups, organisations and communities have a wide range of complex, interrelated recovery needs which have to be understood, respected and addressed (Gibbs, et al., 2019).

This work draws on the Recovery Capitals (ReCap) project, which aims to support wellbeing after disasters, applies a framework that emphasises the interaction of seven 'community capitals' (Gibbs, et al, 2019; Quinn, et al., 2020):

- **Natural capital** - natural resources and beauty, and the overall health of ecosystems (including air, land, soil, water, minerals, energy, weather, geographic location, flora, fauna and biodiversity) (Quinn, et al., 2020, p. 6).
- **Social capital** - the connections, reciprocity and trust among people and groups. Includes ***bonding*** (strong ties between similar people e.g. family and friends), ***bridging*** (looser ties between a broader range of people, often cutting across race, gender and class) and ***linking*** (ties connecting people with those in power, such as decision-makers). Can be considered a resource at individual and community level (Quinn, et al., 2020, p. 8).
- **Financial capital** - availability of and access to resources (including savings, income, assets, investments, credit, insurance, grants, donations, loans, consumption and distribution of goods and services, employment and economic activity) available to people, households and communities (with interactions across the levels) (Quinn, et al., 2020, p.12).
- **Cultural capital** - the way people understand and know the world, and how they act within it (includes ethnicity, habits, language, stories, traditions, spirituality, heritage,

[2] Highlighted by the international Sendai Framework agreement for which NZ is a signatory

symbols, mannerisms, preferences, attitudes, orientations, identities, norms and values) (Quinn, et al., 2020, p.14).

- **Political capital** - the power to influence decision-making in relation to resource access and distribution, and the ability to engage external entities to achieve local goals (includes agency, voice, justice, equity, inclusion, legislation, regulation, governance, leadership and policy); exists formally and informally and applies within and between groups (Quinn, et al., 2020, p.16).
- **Built capital** - the design, building and maintenance of physical infrastructure, including its functional and aesthetic value (includes critical facilities and services, housing, vehicles, equipment, information technology, communications, water and energy infrastructure (Quinn, et al., 2020, p.19).
- **Human capital** - people's skills and capabilities, including the ability to access resources and knowledge (includes education, physical and mental health, physical ability, knowledge from lived experience and leadership capabilities) (Quinn, et al., 2020, p.22).

Through an Australia-Aotearoa New Zealand (NZ) collaboration, the ReCap project aims to produce a multi-level, multi-format suite of resources tailored for use in each country (Quinn, et al., 2020). The NZ edition, currently in development, will provide useful considerations for those involved in disaster recovery to consider in their recovery planning and actions.

Recovery over time

Disasters can impact individuals and communities in profound, long lasting and life changing ways. Rather than any specific activity, recovery is a complex non-linear process that extends over time and varies as individuals, groups, organisations and communities deal with changing demands and challenges (Block, et al., 2019; Paton et al., 2014).

The recovery process involves many interdependent and often concurrent activities that progressively advance a community toward its planned recovery outcomes (FEMA, 2016). The 'community capitals' approach acknowledges that fluctuating capitals have a dynamic influence on the lengthy disaster recovery process (Quinn, et al., 2020): "The type and scale of a disaster has implications for the ways in which the various forms of community capitals manifest, interact and influence each other and recovery outcomes" (Quinn, et al., 2020, p. 5).

Some disasters present a prolonged threat that is likely to progress through iterative cycles of escalating/peaking/diminishing threat (McFarlane & Norris, 2006). With a pattern of initial containment or elimination of the disease followed by rapid increases in infection rates seen in many countries (Xu & Li, 2020), the COVID-19 pandemic is such a disaster. As a result the lines between 'disaster phases' become even more blurred with prevention, preparedness, response and recovery activities occurring simultaneously (Quinn, et al., 2020).

Many local and national governments have become adept at managing disasters such as earthquakes and severe weather events, and their response and recovery plans tend to reflect this focus (Barnett, 2020; Dzigbede, 2020). However, the rapidly evolving COVID-19 pandemic has created an unprecedented health, social and economic crisis which

caught many countries unprepared and is testing government emergency preparedness at all levels (Dzigbede, 2020; Harkins, 2020; Henrickson, 2020). While NZ had developed a national pandemic plan prior to the emergence of COVID-19, its utility has been challenged by the nature and scale of the pandemic.

The ongoing assessment of recovery needs and resources is critical to effective recovery planning and practice. As needs evolve and change, frequent and ongoing monitoring through numerous, varied sources are required. Given the nature of recovery activities, both qualitative and quantitative measures are needed (AIDR, 2018).

Planning

Recovery planning should:

- be proactive
- be coordinated across agencies, stakeholders and communities;
- identify and address capacities and vulnerabilities
- ensure that vulnerable populations are being heard
- be inclusive and sensitive to modern definitions of family, varied abilities, cultural practices and gender and sexual diversity;
- integrate community knowledge, customs and conventions;
- recognise that individual, household, organisational and community capacity is interdependent; and
- acknowledge and address stigma and discrimination (AIDR, 2018; MacDonald, et al., 2015; O'Sullivan & Phillips, 2019; Quinn, et al., 2020).

Planning for recovery is integral to preparing for emergencies, and is not simply a post-emergency consideration (AIDR, 2018). Supporting individual, family, organisational and community recovery requires effective planning based on an understanding of community vulnerabilities, risks and strengths well before crisis situations occur.

Community participation in the post-event planning process is critical to identify the specific activities that are required by the community to re-establish community systems and ensure that the outcomes of the recovery process are community driven (AEMI, 2011).

The SARS (Severe acute respiratory syndrome) outbreak in 2003 highlighted the generally poor state of pandemic planning globally and identified a need for innovative consultation strategies to ensure a whole-of-society approach (O'Sullivan & Phillips, 2019). However, as can be seen in the current pandemic context, pandemic planning is still largely under-developed with significant weaknesses.

Dynamic and continuous monitoring is required to review recovery activities, processes, timelines and outcomes (AIDR, 2018).

COVID-19: A GLOBAL PANDEMIC

COVID-19 overview

Coronavirus disease (COVID-19) is an infectious disease caused by a novel coronavirus (SARS-CoV-2) that emerged in Wuhan, China in December 2019.

The World Health Organization (WHO) declared the global COVID-19 outbreak a pandemic on the 11th March 2020.

COVID-19 spreads primarily through person-to-person contact when respiratory droplets from an infected person (including those who are pre-symptomatic) are released through sneezing, coughing, talking, laughing and singing. The virus can also be contracted when people touch a contaminated surface and then their face.

COVID-19 cases can be asymptomatic but in most cases symptoms are mild and similar to that of the common cold and seasonal flu. However, COVID-19 can also be deadly. The elderly and those with pre-existing health conditions are noted as being at higher risk of death.

By the end of October 2020 over 40 million confirmed cases in 188 countries and more than one million deaths had been reported to WHO. While comparable with previous health crises such as SARS-CoV in 2002–2003, this pandemic has a considerably higher contagion rate and much wider global spread.

While results from clinical trials evaluating potential vaccines or treatments for COVID-19 are positive, there is still much to learn and many barriers to overcome.

The COVID-19 remains a serious public health crisis. The response in most countries continues to focus on trying to minimise the infection rate through a range of non-pharmaceutical interventions, including hygiene and physical distancing measures.

(CDC, 2020; Harkins, 2020; Maragakis, 2020; Webmd, 2020; WHO, 2020; Zhang et al. 2020).

Impacts of COVID-19

COVID-19 has impacted the health and well-being of millions of people worldwide. Individuals and communities face increased cognitive, psychological, physical, and social challenges (Van Lancker and Parolin, 2020); and there is increased pressure on many businesses and economies (Finsterwalder & Kuppelwieser, 2020).

Governments around the world are focused on trying to contain and slow the spread of the disease, minimise deaths, provide effective healthcare, protect livelihoods and buffer the adverse impacts of COVID-19 on household finances, businesses and the economy (Barnett, 2020; Harkins, 2020). In New Zealand for example, a range of financial support schemes were provided to support businesses and their employees in times of difficulty, to recover from the effects of COVID-19. These included, among others, wage subsidies, business finance guarantee and small business loan schemes, and an apprenticeship boost initiative.

While the consequences of COVID-19 have been compared to that of ecological disasters, political coups, revolutions, and terrorist attacks (Prime et al., 2020), pandemics, and COVID-19 in particular, differ because of their social, economic and political contexts. Where the most recent pandemic, 2009 H1N1, was more mild than anticipated, COVID-19 is unprecedented in scope and impact. It is silent, striking across borders and threatening entire populations. Global transmission of the disease has been rapid and without geographical limit (Wordsworth, 2020). It has continued for many months with no

immediate end in sight, and while there has been no physical damage to infrastructure, the same cannot be said about people and their communities (Barnett, 2020; Dzigbede, 2020; Zhang et al. 2020).

COVID-19 and unintended consequences of disease containment strategies have impacted on most facets of peoples' lives (Harkins, 2020; Tuzovic & Kabadayi, 2020). Public health measures, including physical distancing, self-isolation, and lockdown are negatively impacting mental health and well-being and increasing rates of substance abuse, domestic violence and relationship discord (Mooney et al., 2020).

Adverse reactions have been driven partly by financial instability and the uncertainty experienced by so many worldwide (Marmot, 2020; Solomou & Constantinidou, 2020).

Economic data and industry reports indicate that COVID-19 has created 'service mega-disruptions', in particular for the services sector, with major consequences for service employees financial stability and well-being (Tuzovic & Kabadayi, 2020). There are ongoing challenges resulting from border restrictions, such as the inability to recruit much needed workforce (e.g. seasonal and skilled agricultural workers), further increasing business pressures.

Social inequities

As the disease has spread and taken hold, existing inequities have been exacerbated and others, previously less visible, have been exposed (Blake, 2020; Blundell, et al., 2020; Jacobson 2020; Marmot, 2020; Nania, 2020). If the variable impact of COVID-19 on different groups and communities is not acknowledged and addressed, mitigation and control containment strategies will be hindered and existing inequalities further extended (Blundell, et al., Dzigbede, 2020; 2020; Harkins, 2020; Mooney et al., 2020).

Contributing to this is the public health responses to COVID-19 in most countries. These include a range of actions/strategies, such as physical distancing, self-isolation, closure of schools, widespread working from home, and lockdowns of entire communities and sectors such as hospitality and retail (Blundell, et al., 2020). The multiple, interrelated impacts of such practices have not been felt equally across communities and populations as they have interacted with pre-existing inequalities along dimensions such as ethnicity, age, gender and geography (Blundell, et al., 2020).

Research from Canada highlights how recent immigrants, low-income families, and families with children have been disproportionately impacted by income loss during the pandemic (Vanier Institute of the Family, 2020). In the United Kingdom those more likely to report negative impacts from the pandemic include younger workers, those on low incomes, the self-employed and workers with less secure work arrangements. (Blundell, et al., 2020).

In contrast, those with higher levels of education and earnings are more likely to be able to work from home, and to have the space and resources to support their children's education from home (Blundell, et al., 2020). Teachers in NZ have reported that unequal access to devices and resources have exacerbated existing attendance and engagement issues with school students (Walters, 2020).

In NZ measures have included directives to stay home and close all but essential businesses and services. The retail/hospitality sector has been impacted particularly hard. Women bore the brunt of the job losses, with women accounting for over 60% of sales

workers and over 70% of hospitality workers. Data released in August 2020 showed that of those no longer in paid employment 90% were women (Vergara, 2020). What this statistic does not show is the breakdown of ethnicity for those workers or the impact of the job losses on poorly paid or insecure workers.

Reflecting concerns relevant to Indigenous communities globally, Māori researchers and health professionals have expressed deep concern about the potentially disproportionate negative impact a COVID-19 pandemic is likely to have on Māori communities (McLeod, et al., 2020).

Pacifika leaders have also expressed concern about the impact of COVID-19 on their people, with job losses, lack of access to technology/devices for children's education during lockdown, and a growing food crisis adding to the burden on Pasifika households (Foon, 2020).

It appears that some Pacific people were reluctant to seek medical care during lockdown or to get tested for COVID-19, in part due to fear of receiving a positive result, but also due to worries about placing a financial strain on family from taking time off work (Heather, & Jones, 2020). As a result some have experienced more urgent issues associated with deteriorating health conditions (Heather, & Jones, 2020).

There has also been criticism that NZ Government agencies were too slow to include Pacific leaders in decision making and failed to ensure that COVID-19 communications were readily available in Samoan, Tongan, and Māori (Foon, 2020).

These concerns are reinforced by research showing that if COVID-19 became more widespread in NZ, it could have a devastating impact on Māori and Pacific communities with higher risks of contracting COVID-19, becoming unwell, and dying, due to the compounded effects of underlying health conditions, socioeconomic disadvantage, and structural racism (Steyn, et al., 2020).

It is important to acknowledge the assumptions that are frequently made about 'vulnerability'. It does not equate to a condition or attribute (such as age, gender, disability, etc) but "reflects whether the people affected can prevent and resist the potential damage of the disaster and whether, if damage does occur, they can recover successfully" (AIDR, 2018, p. 38). Communities can be constrained in their agency to act due to wider systemic racism or oppression. Vulnerability often reflects unequal social systems that continue to denigrate some communities over others. Importantly, members of so-called 'vulnerable groups' also have strengths, assets and capacities; they may be informed and empowered people, capable not only of supporting themselves during times of crisis and recovery, but also of supporting others (AIDR, 2018).

RECOVERY IN THE COVID-19 CONTEXT

It is too soon to accurately estimate the long-term effects of the pandemic (Donthu & Gustafsson, 2020) or to say when or how economic and social life will recover or what a 'new normal' might look like. What is clear is that successful recovery will be long and will require an extraordinary rate of learning and adaption (Harkins, 2020). Learning from past crises is essential to mitigating risk and reducing future vulnerability (Albright, 2019; Gregory, 2020). Understanding the factors that promote learning at all levels (community to governmental) will enhance successful long-term community recovery (Albright, 2019).

In the face of illness and death, disruptions in income, housing, and food security, and noted increases in mental health–related sequelae and domestic violence, post-pandemic recovery planning, preparations and actions are urgently needed (Barnett, 2020, Mooney, et al. 2020). Few countries have significant recent experience recovering from a pandemic the scale of COVID-19. It presents an unprecedented test for existing disaster planning and response approaches particularly with respect to considerations for recovery (Barnett, 2020). Governments face a significant challenge as they navigate the balance between health/wellbeing and economic considerations and priorities (Moti, & Ter Goon, 2020).

Pre-disaster preparedness and the decisions made and priorities set early in the response and recovery process will have a cascading effect on the nature and speed of recovery in the medium and longer term (FEMA, 2016). While the focus on clinical and economic response is justifiable and essential, it is also vital that early attention is given to planning for recovery and building a 'new normal' for communities in a post–COVID-19 world (Barnett, 2020; Harkins, 2020).

Recovery will be protracted and challenging, and will likely involve further outbreaks of COVID that each time we will need to respond to and recover from. In the face of COVID-19 challenges, organisations, businesses and society are likely to change in multiple ways (Finsterwalder & Kuppelwieser, 2020; Gupta, 2020; Donthu & Gustafsson, 2020; Harkins, 2020). For example, many markets, especially in tourism and hospitality sectors, no longer exist but online communication, entertainment, and shopping are seeing unprecedented growth (Donthu & Gustafsson, 2020).

For the process of recovery to provide optimal outcomes it is best managed by way of careful phasing and management (Harkins, 2020) as the manner in which recovery management processes and activities are planned and undertaken will be critical to their success (Gibbs, et al., 2019). An innovative and adaptive approach to support and service delivery will be needed, alongside strong community mobilisation, engagement and participation (Harkins, 2020).

Partnership and collaboration

Collaborative recovey should:

- aim to achieve outcomes that are owned by the affected individuals and community and supported by all stakeholder agencies;
- have clearly articulated and shared goals based on desired outcomes;
- be adaptive to changing community needs and/or stakeholder expectations;
- be inclusive, using relationships created before and after the emergency and guided by those with experience and expertise;
- identify, use and develop community knowledge, leadership and strengths;
- have clear decision-making and reporting structures and reflect well-developed planning and information gathering;
- understand the roles, responsibilities and authority of other organisations and coordinate across agencies and sectors;
- seek to collaborate, reconcile different interests and time frames and reinforce shared responsibility between all sectors of the community;
- plan for the introduction to and transition from recovery-specific activities; and
- contribute to future prevention and preparedness (AIDR, 2018; Dzigbede, 2020; MacDonald, et al., 2015; Quinn, et al., 2020).

Responding to a global pandemic requires interdisciplinary and inter-sectoral collaboration and coordination at the local, regional, national and international level (Wordsworth, 2020). All levels of government, along with non-government, corporate and philanthropic agencies, ideally should work closely and collaboratively to provide a range of recovery activities, programs and services (AIDR, 2018; Dzigbede, 2020). These need to represent a diverse range of communities, where all voices contribute equally. A concerted effort should be made to include those voices not traditionally included in the conversation. Pre-existing differences and politics make this a process that needs to be managed in an inclusive manner with all ethnic groups, with a particularly inclusive and partnership approach where Indigenous or other peoples have statutory rights to being part of the recovery management process.

It is important that communities and formal recovery resources (agencies, government departments, etc.) play complementary roles. However, the recovery process involves diverse disciplines, organisations and stakeholders who rarely, if ever, work or collaborate together outside of the recovery context.

For a unity of effort and to ensure the effective realisation of sustainable outcomes, it is critical that activities are co-ordinated within and across organisational boundaries and within and across the different recovery environments or ‘community capitals’. This does not happen by chance, and coordination needs to be planned for, developed and systems for effective action put in place and managed (MacDonald et al., 2015). Strong collaborative partnerships are vital and those that are based on existing, trusted relationships support better decision-making processes and actions during recovery (MacDonald, et al., 2015). The importance of good inter-agency collaboration and communication were highlighted by the Canterbury earthquakes tourism response and recovery (Orchiston & Higham, 2014).

Community-led recovery

Community-led recovery should:

- be open and inclusive in identifying, defining and assessing affected communities and consider the needs, values, culture and priorities of all affected communities;
- be respectful of and sensitive to the history, culture and diversity of the community;
- recognise that people respond or react differently and that significant impacts can be experienced by those not considered 'directly affected';
- identify, support and build on individual, community and organisational strengths and capacities;
- appreciate the risks and stressors faced by the community;
- identify and support those who may be facing vulnerability and address issues of inequities;
- support the development of self-reliance in planning and action;
- recognise that existing resources will be stretched, that additional resources may be required and that resources can be provided by a range of stakeholders;
- develop networks and partnerships to empower communities and understand when and how to disengage;
- enable those affected by a disaster to actively participate in their own recovery and recognise that communities may choose different paths to recovery;
- ensure external pressures do not over-ride local interests, work closely with local government, businesses, services, Indigenous organisations and community groups.
- ensure that the specific and changing needs of affected communities are met with flexible and adaptable policies, plans, and services; and
- support and develop community-led strategies, initiatives and infrastructure (such as: community organisations, marae, strong local leaders and shared communication channels) (AIDR, 2018; MacDonald, et al., 2015; Mooney, et al., 2020; Quinn, et al., 2020).

Many governments have struggled to manage the COVID-19 pandemic, issuing national edicts that overlook the needs of communities (Maital & Barzani, 2020). Responses have tended to follow traditional 'top down' approaches that fail to recognise the importance of community diversity or differential impact.

Communities are best placed to identify and articulate their needs (Maital & Barzani, 2020). Therefore, it is important for communities to exercise a high degree of self-determination and be enabled to contribute actively to the planning and implementation and evaluation of recovery activities and processes (AIDR 2018). Connected communities, with strong pre-existing community leadership, networks and resources can initiate effective local responses, foster community involvement, and access external support in a timely manner (Thornley et al., 2015).

A community-led recovery should recognise, support and build on the inherent strengths, assets and resources of individuals, families and organisations (e.g. Bryant, et al., 2018; Rahiem, et al., 2018). The objective should be to facilitate people's ability to make sense

of their experience and reframe it in meaningful ways (Johnston et al., 2015). In this way, communities can take action that is culturally appropriate and specific.

Community engagement is more than Government agencies disseminating information, holding community meetings, or inviting public comment on proposed strategies or plans (Johnston et al., 2012). It should aim to empower (e.g., self-determining actions, self-governance, greater involvement in official decisions), build resilience (e.g., Mooney et al., 2011) and result in the identification of workable solutions to problems (Vallance, 2015).

Communication

Recovery communications should:

- begin as early as possible in an emergency
- be relevant, timely, clear, accurate, targeted, credible, consistent and include empathy;
- be tailored to local communities and specifically address the needs and concerns of local communities
- recognise that communication with a community should be two-way, and that input and feedback should be sought and considered over an extended time;
- ensure that information is accessible to all, taking into consideration people's diverse needs and circumstances, and is provided through a range of media and trusted channels;
- establish mechanisms for coordinated and consistent communication in partnership with all agencies and organisations (such as policymakers, health providers, media outlets, schools, and community leaders);
- repeat key recovery messages to ensure information reaches community members when they are receptive
- be flexible to adapt to changing circumstances as the pandemic response and recovery evolves (AIDR, 2018; MacDonald, et al., 2015; Tagliacozzo, 2018) ; Becker et al., 2019; Mooney, et al., 2020; Quinn, et al., 2020; Stolow, 2020).

Successful recovery is built on effective two-way communication between affected communities and agencies involved in recovery and on the ability of people to access accurate and timely information (AIDR, 2018; Mooney, et al., 2020). If people do not have easy access to accurate, trustworthy official information they will seek it through alternative avenues, frequently filling the gap with rumour and speculation (AIDR, 2018). This may be exacerbated during emergencies as the normal communication channels underpinning social connectedness are disrupted.

There is an increasing recognition that the processes used by Government and other key recovery agencies to interact with communities are critical and can impact either positively or negatively on the capacity of individuals and groups to manage their own recovery process (AEMI, 2011). Communication that is done well can help engender a sense of caring and belonging and while providing validation that community concerns have been listened to and acted upon (AIDR, 2018).

During the COVID-19 pandemic technology and social media are being used on an unprecedented scale to keep people safe, informed, productive and connected (WHOa,

2020). However it has also contributed to widespread dissemination of unverified information (Laato et al., 2020). This 'infodemic' of misinformation and fake news undermines the global response and jeopardises measures to control the pandemic (WHOa, 2020; Roozenbeek et al., 2020). It threatens people's physical and mental health, reduces the effectiveness of public health practices, and increases fear, stigmatization and the polarisation of public opinion on COVID-19 related topics (WHOa, 2020).

Ensuring that communication is accurate and effective, now and in the future as the pandemic continues to unfold, will take agility, adaptability and a collaborative partnership between a wide range of agencies and services (Stolow, 2020).

Lessons from previous recoveries show that a diversity of information is required via a multitude of channels. Despite the utility of social media it is important to consider aspects such as face-to-face communication if health restrictions do not prevent this (Tagliacozzo, 2018). Contextual changes over time will also occur throughout the different phases of COVID response and recovery, and so communication will need to be flexible enough to adapt to the differing circumstances that arise (Tagliacozzo, 2018; Becker et al., 2019).

REFERENCES

AEMI. (2011). Australian emergency management handbook series: *Community recovery, handbook 2.* Australian Emergency Management Institute (AEMI) Commonwealth of Australia.

AIDR (2018). *Community Recovery Handbook 2.* East Melbourne, Vic, Aus: Australian Institute of Disaster Resilience. https://knowledge.aidr.org.au/media/5634/community- recovery-handbook.pdf

Albright, E. A., & Crow, D. A. (2019). Capacity building toward resilience: How communities recover, learn, and change in the aftermath of extreme events. Policy Studies Journal.

Barnett, D. J., Rosenblum, A. J., Strauss-Riggs, K., & Kirsch, T. D. (2020). Readying for a Post–COVID-19 World: The Case for Concurrent Pandemic Disaster Response and Recovery Efforts in Public Health. *Journal of Public Health Management and Practice*, 26(4), 310-313.

Blake, D. (2020). Preparedness and Recovery as a Privilege in the Context of Covid-19. *Economic and Social Research Aotearoa*. https://esra.nz/preparedness-recovery-privilege-context-covid-19.

Becker, J. S., Potter, S. H., McBride, S. K., Wein, A., Doyle, E. E. H., & Paton, D. (2019). When the earth doesn't stop shaking: How experiences over time influenced information needs, communication, and interpretation of aftershock information during the Canterbury Earthquake Sequence, New Zealand. *International journal of disaster risk reduction*, 34, 397-411.https://www.sciencedirect.com/science/article/pii/S2212420918312792 https://sites.google.com/view/jcdrblog/long-term-communication-about-covid-19

Block, K., Molyneaux, R., Gibbs, L., Alkemade, N., Baker, E., MacDougall, C., ... & Forbes, D. (2019). The role of the natural environment in disaster recovery: "We live here because we love the bush". *Health & place,* 57, 61-69.

Blundell, R., Costa Dias, M., Joyce, R., & Xu, X. (2020). COVID-19 and Inequalities. *Fiscal Studies,* 41(2), 291-319.

Bryant, R. A., Gibbs, L., Gallagher, H. C., Pattison, P., Lusher, D., MacDougall, C., Harms, L., Block, K., Snowdon, E., Sinnott, V., Ireton, G., Richardson, J. & Forbes, D. (2018). Longitudinal Study of Changing Psychological Outcomes Following the Victorian Black Saturday Bushfires. *Australian and New Zealand Journal of Psychiatry* 52 (6): 542-551, DOI: 10.1177/0004867417714337

Centers for Disease Control and Prevention. 2020. *How COVID-19 spreads.* Atlanta, GA: US Department of Health and Human Services, CDC. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html.

Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of business research*, 117, 284.

Dzigbede, K., Gehl, S. B., & Willoughby, K. (2020). Disaster resiliency of US local governments: Insights to strengthen local response and recovery from the COVID-19 pandemic. Public Administration Review.

FEMA (2016). Federal Emergency Management Agency (2016). *National Disaster Recovery Framework. 2nd ed*. Washington, DC: Federal Emergency Management Agency (FEMA); June 2016.

Fernandez, G., & Ahmed, I. (2019). “Build back better” approach to disaster recovery: Research trends since 2006. *Progress in Disaster Science*, 1, 100003.

Finsterwalder, J., & Kuppelwieser, V. G. (2020). Equilibrating resources and challenges during crises: a framework for service ecosystem well-being. *Journal of Service Management.*

Foon, E. (2020). *Pasifika need extra help dealing with Covid's harsh reality*. RNZ, 23 August 2020 .https://www.rnz.co.nz/news/national/424205/pasifika-need-extra-help-dealing-with-covid-s-harsh-reality-councillor

Gibbs, L., Quinn, P., Johnston, D., Blake, D., Campbell, E., & Brady, K. (2019). *Recovery capitals (RECAP): Applying a community capitals framework to disaster recovery*.

Gupta, S., Nguyen, T. D., Rojas, F. L., Raman, S., Lee, B., Bento, A., ... & Wing, C. (2020). *Tracking public and private response to the covid-19 epidemic: Evidence from state and local government actions* (No. w27027). National Bureau of Economic Research.

Gregory, D. (2020) Disaster response for small businesses: we must learn from the past, Small Enterprise Research, 27:1, 97-101, DOI: 10.1080/13215906.2020.1740105.

Harkins, C. (2020). *Supporting community recovery and resilience in response to the COVID-19 pandemic–a rapid review of evidence*. Glasgow; GCPH: 2020.

Heather, M., & Jones, H. (2020) University of Auckland, News and Opinion, 8 May 2020. Opinion, *"The true inequity": Factors that make Māori and Pacific people more vulnerable to Covid-19.* https://www.auckland.ac.nz/en/news/2020/05/08/the-true-inequity.html?fbclid=IwAR0YtemqdeD-FGivNjM_YbmI90Mfrspn6qzOqJkNTbXEAgfruRaED8hbmlM

Henrickson, M. (2020). Kiwis and COVID-19: The Aotearoa New Zealand response to the global pandemic. *The International Journal of Community and Social Development*, 2(2), 121-133.

Jacobson, M. (2020). *Social Equity Considerations: An Imperative in a Time of Pandemic. Governing,* March 30. https://www.governing.com/community/ Social-Equity-Considerations-An-Imperative-in-a-Time-of-Pandemic.html

Johnston, D., Becker, J., & Paton, D. (2012). Multi-agency community engagement during disaster recovery: lessons from two New Zealand earthquake events. *Disaster Prevention and Management: An International Journal*, 21(2), 252-268.

Laato, S., Islam, A. N., Islam, M. N., & Whelan, E. (2020). What drives unverified information sharing and cyberchondria during the COVID-19 pandemic?. *European Journal of Information Systems*, 1-18.

Luna, F. (2009). Elucidating the concept of vulnerability: Layers not labels. *International Journal of Feminist Approaches to Bioethics*, 1(2), 121-139.

MacDonald, C.; Davies, B.; Johnston, D.M.; Paton, D.; Malinen, S.; Naswall, K.; Kuntz, J.; Stevenson, J. 2015. *A framework for exploring the role of business in community recovery following disasters*, GNS Science Report 2015/62. 22 p.

Maital, S., & Barzani, E. (2020). *Build Back Better: Toward a Visual Strategic Plan for Successful Emergence from COVID-19 The Case of Israel*. Part II SWOT Analysis: A Global Benchmarking Study of Israel. Samuel Neaman Institute. https://www.neaman.org.il/EN/Files/Build%20Back%20Better%20-%20Part%202%2010.9.20_20201014134053.979.pdf

Maragakis, L. (2020). Coronavirus Disease 2019 vs. the Flu. Johns Hopkins medicine. https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-disease-2019-vs-the-flu.

Marmot, M. (2020). Society and the slow burn of inequality. *The Lancet*, 395, 1413–1414. https://www.thelancet.com/action/showPdf?pii=S0140-6736%2820%2930940-5

MCDEM (Ministry of Civil Defence & Emergency Management). 2019. National disaster resilience strategy Rautaki a¯-Motu Manawaroa Aitua¯. Wellington: Ministry of Civil Defence & Emergency Management.

McFarlane, A. C., & Norris, F. H. (2006). Definitions and concepts in disaster research. In F.H. Norris, S. Galea, M.J. Friedmann, & P.J. Watson (Eds.), Methods for disaster mental health research, (pp. 3-19). Guilford Press.

McLeod, M., Gurney, J., Harris, R., Cormack, D., & King, P. (2020). COVID-19: we must not forget about Indigenous health and equity. *Australian and New Zealand journal of public health.* doi: 10.1111/1753-6405.13015

Ministry of Health. (2017). *New Zealand Influenza Pandemic Plan: A framework for action* (2nd ed). Wellington: Ministry of Health.

Mooney, M. F., Paton, D., De Terte, I., Johal, S., Karanci, A. N., Gardner, D., … Johnston, D. (2011). Psychosocial recovery from disasters: A framework informed by evidence. New Zealand Journal of Psychology, 40(4), 26-38.

Mooney, M. F., MacDonald, C., Becker, J., Blake, D., Gibbs, L., Naswall, K., Malinen, S., Alefaio, S., Tassell-Matamua, S.Johnston, D. (June 2020) . Wellington (NZ): Massey University. 54 p. (Disaster Research Science Report; 2021/01).

Moti, U. G., & Ter Goon, D. (2020). Novel Coronavirus Disease: A delicate balancing act between health and the economy. *Pakistan journal of medical sciences*, 36(COVID19-S4), S134..\

Nania, Rachel. 2020. *Blacks, Hispanics Hit Harder by the Coronavirus, Early U.S. Data Show. AARP*, May 8. https://www.aarp.org/health/conditions-treatments/ info-2020/minority-communities-covid-19.html

O'Sullivan, T. L., & Phillips, K. P. (2019). From SARS to pandemic influenza: the framing of high-risk populations. *Natural Hazards,* 98(1), 103-117.

Orchiston, C., & Higham, J. E. S. (2014). Knowledge management and tourism recovery (de)marketing: the Christchurch earthquakes 2010–2011, *Current Issues in Tourism,* http://dx.doi.org/10.1080/13683500.2014.990424.

Paton, D., Johal, S., & Johnston, D. (2014). *Community recovery following earthquake disasters.* Encyclopedia of Earthquake Engineering, Springer Berlin Heidelberg.

Prime, H., Wade, M., & Browne, D. T. (2020, May 21). Risk and Resilience in Family Well-Being During the COVID-19 Pandemic. *American Psychologist*. Advance online publication. http://dx.doi.org/10.1037/amp0000660

Quinn, P., Gibbs, L., Blake, D., Campbell, E., Johnston ,D., & Ireton, G. (2020). *Guide to Post-Disaster Recovery Capitals (ReCap).* Melbourne, Australia: Bush re and Natural Hazards Cooperative Research Centre. www.redcross.org.au/recap

Rahiem, M. D. H., Krauss, S. E., & Rahim, H. (2018). *The child victims of the Aceh Tsunami: Stories of resilience, coping and moving on with life*. Procedia Engineering, 212, 1303-1310.

Roozenbeek, J., Schneider, C. R., Dryhurst, S., Kerr, J., Freeman, A. L., Recchia, G., ... & van der Linden, S. (2020). Susceptibility to misinformation about COVID-19

around the world. *Royal Society Open Science*, 7(10), 201199. https://royalsocietypublishing.org/doi/10.1098/rsos.201199

Solomou, I., & Constantinidou, F. (2020). Prevalence and predictors of anxiety and depression symptoms during the CoViD-19 pandemic and compliance with precautionary measures: age and sex matter. *International journal of environmental research and public health*, 17(14), 4924. https://doi.org/10.3390/ijerph17144924

Steyn, N., Binny, R. N., Hannah, K., Hendy, S., James, A., Kukutai, T., ... & Sporle, A. (2020). *Estimated inequities in COVID-19 infection fatality rates by ethnicity for Aotearoa New Zealand*. medRxiv.

Stolow, J. A., Moses, L. M., Lederer, A. M., & Carter, R. (2020). How Fear Appeal Approaches in COVID-19 Health Communication May Be Harming the Global Community. *Health Education & Behavior*, 1090198120935073.

Tagliacozzo, S. (2018). Government agency communication during postdisaster reconstruction: Insights from the Christchurch earthquakes recovery. *Natural Hazards Review*, 19(2), 04018001.

Thornley, L., Ball, J., Signal, L., Lawson-Te Aho, K., & Rawson, E. (2015) Building community resilience: learning from the Canterbury earthquakes. *Kōtuitui: New Zealand Journal of Social Sciences Online*, 10:1, 23-35, DOI: 10.1080/1177083X.2014.934846

Tuzovic, S., & Kabadayi, S. (2020). The influence of social distancing on employee well-being: a conceptual framework and research agenda. *Journal of Service Management*. doi: 10.1108/JOSM-05-2020-0140.

Vallance, S. (2015). Disaster recovery as participation: Lessons from the Shaky Isles. *Natural Hazards*, 75(2), 1287-1301.

Van Lancker, W. and Parolin, Z. (2020), “COVID-19, school closures, and child poverty: a social crisis in the making”, *The Lancet Public Health*, Vol. 5 No. 5, pp. 243-244, doi: 10.1016/S2468-2667(20) 30084-0.

Vanier Institute of the Family. (2020). *Families struggle to cope with financial impacts of the COVID-19 pandemic.* https://vanierinstitute.ca/families-struggle-to-cope-with-financialimpacts-of-the-covid-19-pandemic/

Vergara, M. (2020). 11,000 New Zealanders have lost their jobs – and 10,000 of them were women. *The Spinoff*. https://thespinoff.co.nz/business/05-08-2020/11000-new-zealanders-have-lost-their-jobs-and-10000-of-them-were-women/

Walters, L. (2020). Students falling through the gaps during lockdown. *News Room*, https://www.newsroom.co.nz/students-falling-through-the-gaps-during-lockdown

Webmd (2020). https://www.webmd.com/lung/coronavirus#1-2

WHO (2020). https://www.who.int/health-topics/coronavirus#tab=tab_1

WHO (2020a). *Managing the COVID-19 infodemic: Promoting healthy behaviours and mitigating the harm from misinformation and disinformation.* Joint statement by WHO, UN, UNICEF, UNDP, UNESCO, UNAIDS, ITU, UN Global Pulse, and IFRC. 23 September 2020. https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation

Wisner, B., Blaikie, P., Cannon, T., & Davis, I. (2004). *At risk: Natural hazards, people's vulnerability and disasters.* Routledge.

Wordsworth, R. Hall, C. M., Prayag, G., & Malinen, S. (Forthcoming). *Critical perspectives on disaster and crisis research: Revealing and responding to vulnerability*. Research Methodology in Strategy and Management, Emerald.

Xu, S., & Li, Y. (2020). Beware of the second wave of COVID-19. *The Lancet*, 395(10233), 1321-1322.

Zhang, X., Wang, F., Zhu, C., & Wang, Z. (2020). Willingness to self-isolate when facing a pandemic risk: Model, empirical test, and policy recommendations. *International journal of environmental research and public health*, 17(1), 197.

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