Cross-sectoral Suicide Prevention Implementation post-disasters in Canterbury, Aotearoa New Zealand.

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Acknowledgments

Everyone needs someone to love, something to do and something to hope for.

I read this banner at the Mindil markets in Darwin, Australia in 2014 and felt it captured the elements that were absent in many of the coronial reports provided to the suicide prevention office I worked in. This study sought to find a better way to work together to create those safety nets that allow people the time to find that purpose, love and hope.

Abstract

From 2010, Canterbury, a province of Aotearoa New Zealand, experienced three major disaster events. This study considers the socio-ecological impacts on cross-sectoral suicide prevention agencies and their service users of the 2010 – 2016 Canterbury earthquake sequence, the 2019 Christchurch mosque attacks and the COVID-19 pandemic in Canterbury. This study found the prolonged stress caused by these events contributed to a rise in suicide risk factors including anxiety, fear, trauma, distress, alcohol misuse, relationship breakdown, childhood adversity, economic loss and deprivation. The prolonged negative comment by the media on wellbeing in Canterbury was also unhelpful and affected morale. The legacy of these impacts was a rise in referrals to mental health services that has not diminished.

This adversity in the socio-ecological system also produced post-traumatic growth, allowing Cantabrians to acquire resilience and help-seeking abilities to support them psychologically through the COVID-19 pandemic. Supporting parental and teacher responses, intergenerational support and targeted public health campaigns, as well as Māori family-centred programmes, strengthened wellbeing.

The rise in suicide risk led to the question of what services were required and being delivered in Canterbury and how to enable effective cross-sectoral suicide prevention in Canterbury, deemed essential in all international and national suicide prevention strategies. Components from both the World Health Organisation Suicide Prevention Framework (WHO, 2012; WHO 2021) and the Collective Impact model (Hanleybrown et al., 2012) were considered by participants. The effectiveness of dynamic leadership and the essential conditions of resourcing a supporting agency were found as were the importance of processes that supported equity, lived experience and the partnership of Māori and non-Māori stakeholders. Cross-sectoral suicide prevention was found to enhance the wellbeing of participants, hastening learning, supporting innovation and raising awareness across sectors which might lower stigma. Effective communication was essential in all areas of cross-sectoral suicide prevention and clear action plans enabled measurement of progress.

Identified components were combined to create a Collective Impact Suicide Prevention framework that strengthens suicide prevention implementation and can be applied at a local, regional and national level.

This study contributes to cross-sectoral suicide prevention planning by considering the socio-ecological, policy and practice mitigations required to lower suicide risk and to increase wellbeing and post-traumatic growth, post-disaster. This study also adds to the growing awareness of the contribution that social work can provide to suicide prevention and conceptualises an alternative governance framework and practice and policy suggestions to support effective cross-sectoral suicide prevention.

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Glossary of Acronyms

Acronym	Full Term
ACE	Adverse Childhood Experiences
AOD	Alcohol and Drug
ATSI	Aboriginal and Torres Strait Islander
CASA	Clinical Advisory Services Aotearoa
CDHB	Canterbury District Health Board
CI	Collective Impact
CPH	Community and Public Health
CSPGC	Canterbury Suicide Prevention Governance Committee
DOC	Department of Corrections
DOH	Australian Government Department of Health
DPMC	Department of Prime Minister and Cabinet
ED	Emergency Department
EQC	New Zealand Earthquake Commission
GAO	United States Government Accountability Office
GIMHA	Government Inquiry into Mental Health and Addictions in New Zealand
HC	Health Coach
HHS	US Department of Health and Human Services
HIP	Health Improvement Practitioners
IACSP	Inter-Agency Committee on Suicide Prevention
IT	Information Technology
LGBTI	Lesbian, Gay, Bisexual, Transgender, Intersex
MHAWG	Mental Health and Addiction Wellbeing Group
MHF	Mental Health Foundation
MHWC	Mental Health and Wellbeing Commission
MOH	Ministry of Health
MOJ	Ministry of Justice
MSD	Ministry of Social Development
NAASP	National Action Alliance for Suicide Prevention
NGO	Non-government Organisation
NSPS	National Suicide Prevention Strategy (Australia)
NZ	New Zealand
NZFVCH	New Zealand Family Violence Clearinghouse
NZMHWC	New Zealand Mental Health and Wellbeing Commission
OECD	Organisation for Economic Cooperation and Development
PTSD	Post-Traumatic Stress Disorder
QPR	Question Persuade and Refer
SBMH	School Based Mental Health Team
SCDHB	South Canterbury District Health Board
SMHS	Specialist Mental Health Services
SPC	Suicide Prevention Coordinator
UK	United Kingdom
US	United States of America
UN	United Nations
WHO	World Health Organisation
ZSA	Zero Suicide Aotearoa

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Chapter One: Suicide Prevention Implementation - Introduction and Canterbury Context

1.1 Introduction

Suicide is an international public health issue. Each year across the world, over 700,000 people lose their lives to suicide (World Health Organisation [WHO], 2021) and in 2019 it was the fourth leading cause of death amongst young people aged 15-29 years (WHO, 2019). Suicide robs people of their future and profoundly affects people close to the person who has died. In Aotearoa New Zealand, the suicide rate has been deemed unacceptably high culminating in a "human, economic and social toll (that) is significant" (Gaines, 2020, p. 11). Every year in Aotearoa New Zealand predictions suggest over 50,000 people make a plan to end their lives, 20,000 people are known to attempt suicide (Gaines, 2020) and over 600 people lose their lives (MOH, 2021). As it is ubiquitous, a cross-sectoral approach is required to build resilience and deliver prevention in at-risk populations and a situational analysis to inform implementation of suicide prevention activities is recommended (MOH, 2019; WHO, 2021). This study explores cross-sectoral suicide prevention in Canterbury post-disasters, considering how to strengthen cross-sectoral suicide prevention implementation.

Suicide is defined as "the act of deliberately killing oneself" (WHO, 2014), and self-harm which is linked to suicide attempts is described as "intentional self-inflicted poisoning or injury which may or may not have a fatal outcome" (WHO, 2014). Suicide attempts are set apart from self-harm by intent and self-harm is classed as a suicide attempt where the intent is to die (Pirkis et al., 2020).

In 1996, the United Nations (UN) first published guidelines for the formulation and implementation of national suicide prevention strategies (UN, 1996) to provide a focus and framework for suicide prevention. Thirty-eight countries have since adopted this approach (WHO, 2021) and written national suicide prevention strategies and associated action plans, to assist in implementing interventions that attempt to lower harms from suicide. The WHO has repeatedly

emphasized the need for comprehensive cross-sectoral approaches and collaboration in providing interventions (WHO, 2021), within specific social and cultural contexts.

Although calls for collaborative and cross-sectoral strategies and approaches are written in both national and local suicide prevention strategies (WHO, 2021), until 2021 there was little guidance as to what those approaches entail and how they can be implemented at scale with regards to suicide prevention.

For a region that has endured multiple traumatic disaster events since 2010, Canterbury's population has demonstrated increased mental distress (Canterbury District Health Board [CDHB], 2018), leaving it vulnerable to an increase in suicides. Cantabrians have also adapted and developed resilience as an outcome (Hone et al., 2021; Mooney, 2016). In seeking to discover a multi-sectoral approach to assist those at risk in the community, the question of what agencies experienced and what they think will be helpful in supporting staff and preventing suicide for their service users is timely.

This first aim of this research was to examine the socio-ecological impacts of three major disasters in Canterbury on cross-sectoral agencies and their service users, considering the implications of those impacts for suicide prevention. The second aim was to identify and examine the components of cross-sectoral implementation that could combine to create a suicide prevention implementation model that was applicable at a local, regional and national level.

To accomplish this aim, cross-sectoral representatives from the Canterbury Suicide Prevention Governance Committee (CSPGC) were interviewed utilising a qualitative semi-structured interview method and asked for their experience of the impacts of the Canterbury earthquakes, March 2019 Mosque Attacks and Coronavirus pandemic on their service users and staff. They were then asked to identify their suicide prevention activities, needs and opportunities for working cross-collaboratively and how best to implement cross-sectoral suicide prevention in Canterbury post – disasters. The specific research questions driving this inquiry focused on the impacts of the three significant events on cross-sector agency staff and their service users from a socio-ecological

perspective, considering whether these impacts increased suicidal risk and therefore the need for cross-sectoral suicide prevention. Current suicide prevention services, programmes and training provided by agencies were identified as was suicide prevention resourcing. Cross-sectoral suicide prevention governance that aided the implementation of activities in Canterbury was explored including the role of leadership, resourcing, specialist knowledge, data, communication, cross-sectoral opportunities and benefits. The use of a strategic plan to drive activities and measure progress was discussed as was ways in which cross-sectoral suicide prevention ensured the inclusion of all stakeholders including those with lived experience.

In examining how cross-sectoral suicide prevention is implemented, this Chapter examines the socio-ecological context for this study. The Canterbury region and the first of three major disasters that occurred from 2010, the Canterbury earthquakes, are described followed by the effects of the earthquakes on the mental health of the Canterbury population and the psychosocial response provided to aid recovery. The effects of the terrorist attack on two mosques in Christchurch and the arrival of Coronavirus, COVID-19 are then considered. Finally, risk factors following the disasters in Canterbury are identified and suicides in Canterbury are situated in the national and international context to understand and inform future suicide prevention implementation.

1.2 Canterbury

The Canterbury region is nestled half-way down the East Coast of the South Island. Canterbury is bordered by the Tasman Sea to the East, the Southern Alps to the West, the Clarence area in the North and Omarama and Glenarvy to the South. Canterbury's population was estimated at 624,200 in 2019 (Environment Canterbury Regional Council, 2021) and in 2020, an estimated 82% of the population lived in three greater territorial authorities, Waimakariri District, Christchurch City and Selwyn District, (Environment Canterbury Regional Council, 2021). Christchurch is the largest city in Canterbury and the South Island and had an estimated population of over 394,700 in 2020 (Environment Canterbury Regional Council, 2021).

Health services in Canterbury are split between two District Health Boards, the Canterbury District Health Board (CDHB) and the South Canterbury District Health Board (SCDHB). When discussing Canterbury data or research within this thesis, this refers to the CDHB population area, unless specified. In 2017/18, the CDHB had a population of 558,830, 11.6% of the total Aotearoa New Zealand population, (CDHB, 2018). The population reduced initially after the 2010 earthquakes but population growth since has exceeded predictions with a rate of 13.2% (Environment Canterbury Regional Council, 2021).

The CDHB demographic includes an indigenous Māori population of which 42% are aged under 20 years compared to 24% of the total population (CDHB, 2018). Canterbury also has an ageing population (aged over 65 years) who will account for 20% of the total CDHB population by 2026 (CDHB, 2018). In 2018 the CDHB population was comprised ethnically of New Zealand Europeans and others (78.5%), Māori (9.2%), Pacific (2.5%) and Asian (9.8%) (CDHB, 2018). Christchurch also has a refugee and migrant population and is a re-settlement location for refugees.

1.3 Canterbury Earthquakes

On 4 September 2010, Canterbury suffered a magnitude (M) 7.1 earthquake on the Greendale fault, close to Christchurch City, followed by numerous aftershocks including 31 earthquakes over M5.0 in the first four months (GeoNet, 2022). On 22 February 2011, at 12.51pm, a destructive earthquake of M6.2 occurred in central Christchurch; 6600 people were injured and 185 people died in the Christchurch area (Ardagh et al., 2018). Over the following eleven months, continuing earthquakes and aftershocks (GeoNet, 2022) resulted in destruction and damage to more than 110,000 of an estimated 140,000 homes in Christchurch (Guha-Sapir et al., 2012).

Canterbury suffered a further major event when a M7.82 earthquake occurred in Culverden, North Canterbury, on 14 November 2016 at 12.02am, (GeoNet, 2022), affecting residents in rural North Canterbury and the coastal town of Kaikoura, which was isolated for many months due to extensive infrastructure damage.

Owing to the significant and ongoing nature of the earthquakes, many residents in the Christchurch area and North Canterbury experienced multiple losses, losing income, businesses, employment, homes, schools and communities. Rebuilding was slowed by challenges with insurance companies and large infrastructure challenges, including over 1000kms of roads requiring repair, as well as power, water and sewerage systems (Hayward, 2018; ICNZ, 2021). Whole communities were displaced, disproportionally affecting those living in the lower socio-economic areas where damage was most severe (ICNZ, 2021; Thornley et al., 2015).

After February 2011, 18 schools were relocated and 7000 pupils bussed to other sites daily. Fifty five percent of secondary school students shared school sites, enforcing early starts or late finishes to their school day (KPMG, 2019; Mutch, 2015). Owing to the frequent aftershocks, this time spent home alone resulted in increasing anxiety for teenagers and families (CDHB, 2016). Over 12,000 primary and secondary students left their current school to attend classes elsewhere and by 2012, 4500 less students were enrolled in greater Christchurch (KPMG, 2019). Forty primary schools eventually closed or amalgamated due to the implementation of the Ministry of Education's "Directions for Education Renewal in Greater Christchurch" policy, which had a negative effect on community cohesion and resilience (KPMG, 2019; Mutch, 2015; Mutch,2017).

A government briefing paper on the psychosocial consequences of the Canterbury earthquakes, advised that "sleep disturbances, fear of the dark, irritability, aggressive behaviour, angry outbursts, separation anxiety, school avoidance and general changes in behaviour, mood and personality may appear" (Gluckman, 2011, p.1). Post- traumatic stress was felt widely by residents of Christchurch due to the ongoing aftershocks and the continuing threat of harm (Ardagh et al., 2018). Almost all the people with post-traumatic stress felt they were going to die when the February 22, 2011 earthquake occurred (EQ Recovery Learning, 2018).

The ongoing effects of hypervigilance (high-alertness) resulted in flashbacks, nightmares, irritability, emotional withdrawal, loss of concentration, memory difficulties and eventually depression for some people (Ardagh et al., 2018). Specialist Mental Health Services (SMHS) reported

an increase of over 36% in adult presentations, 94% increase in adult rural presentations and 100%

increase in child and youth referrals from 2010 to 2017 (CDHB, 2018). Alcohol consumption

increased (Marie, 2014) as did hazardous drinking (CDHB, 2016). Rates of diagnosed mental illness

increased from 17% to 20% (Ministry of Health, 2018). People were also presenting with higher

levels of psychiatric distress, social disruption, behavioural change and impairment (Beaglehole et

al., 2017). Research confirmed that the primary (initial traumatic experience or physical injury)

consequences of the event and not so much the secondary stressors (loss of home, environment,

income etc) were significant in predicting a major depressive disorder (Bell et al., 2017). Prescribing

rates for antidepressants, anxiolytics and sedatives/hypnotics in Canterbury showed a temporary

increase that was not sustained, (Beaglehole et al., 2015).

Christchurch children, who started school after the Canterbury earthquakes, were five times

more likely to exhibit symptoms of Post-Traumatic Stress Disorder (PTSD) than those already in

school according to Liberty et al., (2016). School counsellors observed increased levels of anxiety

among children, increasing poverty, and parents being affected by housing issues, alcohol and drug

and mental health problems (Hone et al., 2021, O'Callaghan, 2017). An increase in people seeking

mental health support due to post-quake stress, insurance issues, relationship problems and service

cuts was identified (McLennan, 2016). Divorce rates per 100,000 increased from 211 in 2010 to 261

in 2012, also contributing to family displacement, loss of income and stress (Bellamy, 2014;

Stylianou, 2012).

Affected populations in Canterbury included babies in utero and babies aged 1-3 years at the

time of the earthquake, who in 2019, aged 9, 10 and 11 years were exhibiting behavioural anxiety

and unsettled behaviour (Hone et al., 2021; Liberty et al., 2016); children approaching the transition

from primary to secondary school at the time of the earthquakes, now aged in their twenties,

exhibiting higher rates of self-harm and interaction with the criminal justice system and; middle-

aged women, many of whom presented to SMHS after being re-traumatised when hill fires

threatened homes in Christchurch in 2016 (EQ Recovery Learning, 2018). Male homeowners in the

40 to 60 years age range were vulnerable, coming under extreme financial pressure due to business losses or prolonged battles with the New Zealand Earthquake Commission (EQC), or their insurance company, over damage to their homes (EQ Recovery Learning, 2018).

The World Health Organisation (WHO) projections of mental disorders in adult populations affected by disasters or emergencies predict percentages of a population with a severe mental health disorder will shift from 2-3% to 3-4%, with mild to moderate moving from 10% to between 15 - 20% (WHO, 2012). People with existing mental disorders will need increased support (WHO, 2012). Mental illness triggers, post-disaster, have been classified into primary stressors, related directly to the event i.e. loss of a family member or physical injury and secondary stressors such as disruption to daily life, financial loss, unemployment and loss of environment including ones' home (Lock et al., 2012). The secondary stressors tend to have a longer- term impact on community wellbeing and individuals. The socio-ecological impact of the destruction in Canterbury was severe, with 167,000 residential building claims lodged for damaged properties to the EQC in both the central city and urban surroundings, as well as properties in North Canterbury, (Haywood, 2018). This damage created secondary stressors that are still being felt by people in Canterbury (Du, 2022; Hone et al., 2021) increasing the possibility of distress and therefore the need for cross-sectoral suicide prevention.

1.4 Psychosocial Earthquake Response

The New Zealand Government sought to mitigate the psychosocial effects of the earthquakes by delivering funding to the CDHB to address psychosocial distress (MOH, 2016). A Greater Christchurch Psychosocial Committee was formed to coordinate cross-sectoral psychological support. Informed by Gluckman, (2011) a public mental health campaign run by Community and Public Health (CPH), "All Right?" was launched in 2013, supporting self-help and seeking to normalise the feelings of fear, anxiety and exhaustion the population was feeling (All Right?; 2020; Calder et al., 2016). Occurring in the "disillusionment phase" of recovery (Olsen, 2016), the campaign improved mental health literacy and help seeking. In 2020, 77% of respondents (n=478) surveyed

said All Right? messages made them aware of looking after their wellbeing and 47% of respondents implemented strategies to boost their mental health (All Right?, 2020). CPH monitored wellbeing through the Canterbury Wellbeing Index, an extensive survey of health, mental health and deprivation in 2018, that assisted with identifying areas of need (CDHB, 2020).

In 2015, due to increased demand, additional funding was provided to increase mental health services resulting in telehealth support, online support for Māori leaving alcohol and drug (AOD) treatment services and workforce wellbeing (MOH, 2016). Twenty-seven additional mental health positions supported child, adolescent and family services and community mental health and addiction services (MOH, 2016). These services, including the All Right? campaign, were continued in 2019/20 owing to the subsequent mosques attack in Christchurch.

SMHS were concerned about the effects of the earthquakes on school-aged children and youth and increased their School Based Mental Health Team (SBMH) utilising the clinical workforce to provide triaging and advice to schools in Canterbury (CDHB, 2018). In 2017, a new resource, called "Sparklers" (Hone et al., 2021; Sparklers, 2020), was launched to give teachers, parents and young children techniques and resources to support children's emotional and behavioural health.

In 2018 the "Mana Ake" programme launched to provide mental health and wellbeing support for primary school children in Years 1 to 8, in 220 primary and intermediate schools in Canterbury and Kaikoura, addressing continuing concerns over the distress seen in young children (Hone et al., 2021; ImpactLab, 2020; Mana Ake, 2020). An accompanying website "Leading Lights" provided resources for teachers, pupils and families to address anxiety, bullying, stress, marital separation, grief and loss, thus giving children tools to strengthen their mental wellbeing (Hone et al., 2021; Leading Lights, 2019).

Red Cross provided physical and psychological care immediately after the earthquakes, assisting 110,000 people by 2016 and distributing $109M of donations through; insulating damaged or cold houses; providing 43,000 torch radios; providing transport to isolated people to attend health appointments and activities; conducting outreach visits to vulnerable people and; providing

psychological support for the bereaved and seriously injured (Red Cross, 2016). They also ran

Recovery Matters workshops for community groups and businesses (Red Cross, 2016).

Many other agencies provided exemplary care despite dealing with stressed staff and

damaged buildings; the responses listed are not exhaustive. Responses illustrated a coordinated

multi-sectoral effort to practically and psychologically support the people of Canterbury post-

disaster utilising an evidence base (Gluckman, 2011) that foreshadowed the challenges for recovery.

The responses aligned with a cross-sectoral suicide prevention approach designed to support

population wellbeing and provide targeted and selected interventions to families and individuals

most at risk. Cantabrians were beginning to build both their city and their resilience back post-

earthquakes (Smith et al., 2017) when they were suddenly faced with another major socio-ecological

impact that had potential to cause psychological distress and harm and increase suicidality; a

terrorist attack in Christchurch.

1.5 Terrorist Attack on Al Noor and Linwood Mosques

On 15 March, 2019, a terrorist attacked Al Noor and Linwood Masjids (Mosques) in

Christchurch. The attack was unprecedented in Aotearoa New Zealand, killing fifty-one Muslim men,

women and children and seriously injuring forty-five, all of whom were transported to Christchurch

Hospital for emergency medical care (Kerdemelidis & Reid, 2019). Every school in Christchurch,

followed by the entire city, was locked-down for over four hours until the threat was identified and

contained (Hone et al., 2021; KPMG, 2019; Redmond, 2019). Going into "lockdown" is a term

Aotearoa New Zealand children equate with school shootings in America and the lockdown created

fear and trauma, especially for students who watched the live-streamed mass shooting through

facebook, thus swift and effective mental health support was required (Hone et al., 2021; Redmond,

2019). The impact of the livestream video of the attacks extended the effect beyond those physically

present to an international audience according to Bender (2019), who labelled the livestreaming a

"performance crime''. The immediately increased police presence in Canterbury were visibly armed

with semi-automatic weapons, which is abnormal in Aotearoa New Zealand (Daly & Forrester, 2019).

Armed police, guarding the hospital, softened the impact of bearing weapons by handing out sweets and donuts, in a public relations exercise designed to normalise the heightened police presence (Canterbury Police, 2019). The police helicopter circulated above the hospital and central city for five days, invoking memories of the Christchurch February 2011 earthquake (Gorman, 2019).

The attacks appeared to trigger extreme feelings across Aotearoa New Zealand as evidenced by the 600 calls to the 1737 mental health helpline received in the first two weeks following the attacks on 15 March, 2019. Over 6100 sessions were provided across Aotearoa New Zealand to the public by counsellors, psychiatrists and psychologists within the first two weeks, post-event (Brown, 2019). By mid-September 2019, over 75,000 calls had been received by the national helpline service "1737" from people who were either impacted or feeling distressed due to the Mosque attacks (CDHB, 2019). A Resilience Hub website, established to connect people with advice and support, received 5000 views from people seeking assistance for themselves or others (CDHB, 2019).

The Chief Executive of the CDHB, said the "mental health and wellbeing of staff and the community was going to be the biggest challenges the DHB faced" (Brown, 2019). The CDHB provided immediate support by establishing a cross-sectoral welfare centre; increased mental health assistance in health and school settings; equipped helplines with information; released public health messaging to address distress and wellbeing; provided free visits for people attending primary health as required. The CDHB arranged cultural competency training for health professionals, given the diverse Muslim communities affected (MOH, 2019). Resources and support were made available for primary and secondary schools and their students within two days (Hone et al., 2021; Leading Lights, 2019) and public health messaging of where to obtain mental health support help was provided quickly (Hospital HealthPathways, 2019). These responses were swift, built on the previous cross-sectoral responses from the earthquakes, utilising existing relationships and resources to effect immediate psychological and practical support.

Messaging that extremism is not a form of mental illness was also emphasised (Kerdemelidis & Reid, 2019). Families directly affected by the shootings were provided with multi-agency care

coordinated by the CDHB including Accident Compensation (TVNZ, 2019). Evidence suggested that the mental health impact is greater for mass violence than other disasters and modelling predicted up to 1000 people at high risk of developing Post Traumatic Stress Disorder or mental distress due to their proximity to the event (Kerdemelidis & Reid, 2019). 4000 people were at medium risk including first responders, those with previous poor mental health, women, Muslims and Māori, Pacific and migrant populations. There was some risk in the wider Canterbury population of 567,000 people (Kerdemelidis & Reid, 2019, pp. 19; MOH, 2019).

The potential for vicarious trauma occurring in those who responded to the attack was concerning. Vicarious, or secondary, trauma is a term describing the psychological impact of direct or indirect exposure to victims of trauma or violence, which can be immediate or cumulative (MOH, 2019; OVC, 2021). For ambulance and police officers and health staff, many of whom who had attended the injured and dying post -earthquake on February 11, 2011, this new disaster was cumulative and profound (MOH, 2019).

The MOH published a detailed cross-sectoral national response and recovery plan to support people affected by the Mosque attacks in 2019 (MOH, 2019) and a psychosocial response was also formulated for all Aotearoa New Zealand, as this event generated both a national and global outpouring of grief and distress (MOH, 2020). The trauma and sadness caused by the Mosque attacks affected agencies and their service users cross-sectorally and therefore questions on the impacts felt were added to this study prior to the commencement of interviews. Cantabrians were still recovering from this socio-ecological impact when a new threat to their safety and psychological wellbeing emerged in late 2019.

1.6 Coronavirus – COVID 19 Pandemic

In December 2019, the WHO reported the emergence of a coronavirus called SARS-CoV-2, (severe acute respiratory syndrome coronavirus 2) now commonly referred to as COVID-19 (WHO, 2021). The virus was deemed a pandemic and by 17 November, 2021, COVID-19 accounted for over 254.3 million cases and over 5 million deaths (WHO, 2021). The arrival of the virus in Aotearoa New

Zealand in February, 2020 led to a four-week national lockdown in March, 2020 to halt progression of the virus (NZ Government, 2021) and only essential service workers could travel to work. People living in Canterbury went into lockdown again in August, 2021 for two weeks due to concern over the spread of the new and more infectious Delta variant of COVID-19 (NZ Government, 2021). A mass vaccination programme began in Aotearoa New Zealand in January, 2021 and 94% of eligible Cantabrians were on track to become fully vaccinated by the end of 2021 (NZ Government, 2021).

The *Kia Kaha, Kia Māia, Kia Ora Aotearoa: COVID-19 Psychosocial and Mental Wellbeing Plan* (MOH, 2020), was released to support mental wellbeing throughout the pandemic. Expected effects of the pandemic were fear, anxiety, depression and grief (MOH, 2020), not only from COVID-19 illness and deaths but from the considerable disruption and limitations (secondary stressors) that were occurring. Restricted travel and movement, the effect of lockdowns on the economy and people's mental wellbeing and the isolation of losing physical connectedness to family and friends continued to cause major challenges (Every-Palmer et al., 2020). For Cantabrians, the pandemic arrived with some warning and initial responses indicated a resilience across the region that was higher than other areas, (Hone et al., 2021; McDonald, 2020). By April, 2021, mental health referrals increased across Aotearoa New Zealand with a noticeable rise in young people reporting eating disorders (Otago Daily News, 2021). Research in 2020 found 30% of Aotearoa New Zealand adults surveyed (n=2010) reported moderate to severe psychological distress, 16% of the total surveyed had moderate to high levels of anxiety and 39% of the total surveyed reported low wellbeing, all above previous baseline measures due to the pandemic (Every-Palmer et al., 2020). Outcomes were worse amongst youth and people with pre-existing health and mental health illness. Suicidal ideation was reported by 6% surveyed (n=2010) with 2% having attempted suicide, occurrence being highest in adults aged 18 – 34 years. Of the 6% reporting suicidal ideation, 83% had experienced suicidality previously. Rises in family harm incidents were observed, 20% reporting an increase in alcohol consumption however 20% reported a decrease in consumption. 62% of respondents reported benefits, enjoying working from home, spending more time with family and a quieter and less

polluted environment (Every-Palmer et al., 2020). Isolation can increase depression and anxiety and increase suicidal risk, although no direct link to suicides has been demonstrated overseas or in Aotearoa New Zealand (Every-Palmer et al, 2020). The study suggested that people who are already vulnerable carry a higher risk of being negatively impacted psychologically from the effects of the lockdowns. A recent Aotearoa New Zealand study surveying university students pre and post lockdown however, found that depression threshold scores increased from 30% to 50% (n=328) during lockdown but reduced to baseline once the lockdown was over (Scarf et al., 2022), which is encouraging.

The impacts of COVID-19 are continuing in Aotearoa New Zealand where people have moved from containment to adapting to living with the COVID-19 virus circulating in a mostly vaccinated population (NZ Government, 2021). New challenges, including mandated vaccinations for many employees (NZ Government, 2021), supply chain difficulties constricting construction and goods and pushing up the price of goods (Sachdeva, 2021), lack of overseas workforce and international travel restrictions are testing New Zealanders and Cantabrians. The COVID-19 impact on mental health for Cantabrians is one set against a cumulative impact of disasters over 10 years and is particularly affecting youth with over 463 youth/children on SMHS waiting lists in Canterbury in December, 2021 (Cooke, 2021). The volume of youth/children waiting to be seen by SMHS is concerning and increases the risk for suicides in Canterbury. The socio-ecological impacts of the COVID-19 pandemic affect cross-sectoral service provision and were included in this study due to their potential to increase distress, therefore increasing the risk for suicide.

Understanding the risk factors for Canterbury and the available data on Canterbury suicides is important in being able to identify and implement cross-sectoral suicide prevention activities aimed at increasing wellbeing.

1.7 Canterbury Risk Factors and Suicides in Context.

Cantabrians have endured three major disasters in the last ten years. Considering the rise in mental distress due to the Christchurch earthquakes, concern over a potential rise in suicide rates

was understandable (Lewis, 2018). It is important therefore to identify Canterbury suicide risk factors and examine suicide attempts and suicides in Canterbury in order to give context to the validity of concern over an increased risk of suicides post-disasters and to understand the socio-ecological approaches that collaborative cross-sectoral suicide prevention employs to lower suicidal risk.

Repeated exposure to aftershocks caused increased levels of post-traumatic stress in Canterbury (Bell et al., 2017) and a rise in relationship issues (CDHB, 2016). Substance abuse increased (CDHB, 2016) as did undiagnosed depression and diagnosed mental illness (CDHB, 2016), all exposing Cantabrians to a higher risk of suicidal distress. Compounding this were financial losses through loss of employment, businesses, properties and the loss of whole communities (ICNZ, 2020; Thornley, 2017).

In 2013, people with high deprivation in Christchurch were in zones most affected by the earthquakes (Atkinson et al., 2014). High deprivation indicates households more likely to rely on income support, struggling to provide food, heating and clothing, not owning cars and containing a sole parent. Children in these households are less likely to see doctors when unwell but have a higher risk of physical accidents and respiratory illness and involvement with child protection services (Atkinson, et al., 2014). Fewer people were living in lower-socioeconomically deprived areas as their homes were destroyed (Ardagh et al., 2018), but they had moved to more affluent areas, paying higher rent and placing pressure on incomes, therefore increasing stress (CDHB, 2016).

A Police report on the number of attempted/threatened suicide calls (classified by Police as 1X) in Canterbury confirmed a 63% (N=3700) increase from 2013 to 2017 (New Zealand Police, 2018) and 1X calls overtook mental health calls, (1M), substantially in Canterbury. No further data was available for Canterbury past 2017 but national data suggests substantial increases in mental health event call-outs are continuing (NZ Police, 2021).

Post-traumatic growth was possible and the collaborative attempts of stakeholders to support wellbeing and resilience in the primary and secondary education sector in Canterbury (Hone

et al., 2021, Mooney, 2016; Mutch 2015) suggests young Cantabrians were being supported to adapt to the new challenges at hand. This illustrated the impact of cross-sectoral collaboration in strengthening psychological wellbeing, thus contributing to suicide prevention.

Self-harm is an indicator of potential suicide rates. For every person who dies from suicide, 20 or more people attempt suicide (WHO, 2014). Youth self-harm hospitalisation rates per 10,000 (aged 10 to 24 years) confirmed Canterbury as having the highest number of hospitalisations and the second highest rate of all DHBs in 2018, (MOH, 2018).

Considering the increase in the risk factors above, reviewing the numbers and rates of suicides in Canterbury from 2009 onwards, as compared to national and international data, reveals whether any impact from the disasters was perceptible.

Deaths from suicide are reported by a rate of deaths per 100,000, as numbers vary due to changes in population numbers. It is important to take a long-term view as suicide rates vary by month and year and the data set is often small (WHO, 2021). Suicide data is captured in Aotearoa New Zealand by the Ministry of Health (MOH) and the Ministry of Justice (MOJ) and confirmed and provisional suicides are published by the MOH and Office of the Chief Coroner on the Suicide Web Tool, launched in October, 2021 (MOH, 2021).

The confirmed rate for suicides in Aotearoa New Zealand was 12.2 per 100,000 in 2018 (MOH, 2021). From 2009 to 2018 the confirmed Aotearoa New Zealand suicide rates per 100,000 ranged from 12.4 (2012) to 10.8 (2014), indicating a small range (MOH, 2021). The male suicide rate is over double the female rate and rates amongst the major ethnic groups in Aotearoa New Zealand show Māori rates as unacceptably high. When targeting cross-sectoral suicide prevention in Aotearoa New Zealand it is understandably imperative to focus on programmes that strengthen males and Māori. Pacific rates of suicide remain lower than the general population in New Zealand but attempted suicide rates amongst Pasifika youth are three times higher than NZ European youths (Gaines, 2020).

Internationally, post-disaster, suicide rates will initially stabilise or decrease owing to the increased focus on survival and community connection, often referred to as the heroic and honeymoon phases (Olsen, 2016). Suicide rates then increase as the honeymoon phase wanes and feelings of disappointment, anger, frustration and exhaustion create a period of disillusionment that continues before reconstruction begins (Olsen, 2016). Despite conjecture that the rise in mental health presentations due to the disasters might lead to an increase in suicides in Canterbury, the Canterbury rate has tracked the Aotearoa New Zealand rate with only three noticeable departures; 2010 (NZ rate 11.9, CDHB rate 14.6) 2011 (NZ rate 11.2, Canterbury rate 9.7) and 2017, (NZ rate 12.0, CDHB 14.7) (MOH, 2021). The drop in Canterbury suicide rates for 2011 suggests an alignment with the initial increased focus on survival and community connection (Olsen, 2016; Orui, 2020).

The average confirmed Canterbury rate, from 2009 to 2018, was 11.96 per 100,000 with a range from 9.7 (2011) to 14.7 (2017) (MOH, 2021) with the highest numbers occurring in males aged from 25 to 64 years. This data shows that the rise in distress caused by the socio-ecological impacts in Canterbury has not resulted in an increase in suicides, which is an important finding when considering the effectiveness of the psychological and socio-ecological supports that were provided to Cantabrians cross-sectorally post-disasters.

Canterbury has an older population and the numbers of deaths over 65 years is a data set that may need to be tracked over time. Accessing medical assistance for assisted dying in Aotearoa New Zealand became legally available on 7 November 2021, through the End of Life Choice Act 2019 (MOH, 2021). This may increase the numbers of deaths by suicide as seen in the Netherlands, where suicide numbers have increased by 20% since the introduction of euthanasia in 2007 (Boer, 2017).

Proof of a link between the Canterbury earthquakes and increased suicides in the region has not been demonstrated. In 2016, the NZ Herald newspaper published an article linking a possible 40 suicides in Canterbury to the earthquakes (Carville, 2016). Carville investigated 200 coronial findings between 2010 and 2014, interviewing families and gaining anecdotal evidence suggesting 40 people had earthquake related stress, anxiety or paranoia prior to dying from suicide. Carville qualified that

earthquake related stress was not the sole cause of the deaths, as many people had long-term

mental illness. The Aotearoa New Zealand Director for Mental Health commented that future

research on links to causality was unhelpful as it was inaccurate to identify or focus on a single cause

owing to various other underlying mental health and wellbeing issues (Carville, 2016). In 2013, a

nurse researcher in the Emergency Department of Christchurch Hospital said there was a "need for

continuing research into the effects of the earthquake; suicide rates, self-harm and depression were

the obvious starting points" (Richardson, 2013, p.19). A study on the ongoing adverse mental health

impact of the earthquakes (Spittlehouse, et al., 2014), concluded that additional mental health

services and the consideration of adverse mental health effects in relation to other social policies

was essential. No definitive studies or research was found for this study on the impact of the

Canterbury earthquakes on suicides or self-harm in Canterbury. Similarly, speculation on the

possible effect on suicides post-mosque attack (Besley, 2020) has not been substantiated and no

research on the effects of the Mosque attacks or COVID-19 on suicides in Canterbury could be

found. This study gives some context to the concerns raised above, provides more than a single

focus on possible causes of suicide by using a socio-ecological perspective and examines both the

increase in suicide risks but also the mitigations employed cross-sectorally and collaboratively to

lower the risk.

In 2018, the Canterbury District Health Board proposed the establishment of a cross-sectoral

suicide prevention committee (D. Meates, personal communication, 7 September, 2018). The

Canterbury Suicide Prevention Governance Committee (CSPGC) formed to support the coordination

and utilisation of suicide prevention resources and information and to develop a cross-sectoral

Canterbury Suicide Prevention Governance Action Plan and Canterbury Suicide Prevention website

(D. Jeffrey, personal communication, 1 March, 2022). This work was undertaken to provide a socio-

ecological cross-sectoral approach to suicide prevention implementation in Canterbury and due to

the acknowledged demand for psychological services as outlined.

There is no doubt the disasters in Canterbury raised risk factors for suicide but they also appear to have improved mental health literacy and raised resilience over time (Hone et al., 2021). In examining both the challenges to the ecosystem, the adaption to these challenges, and the complexity of supporting wellbeing across agencies, the question of how to implement and sustain a cross-sectoral collaborative suicide prevention approach in Canterbury was raised. There was no research on collaborative cross-sectoral suicide prevention in Aotearoa New Zealand found for this study however the consideration of three cross-collaborative approaches to support children and youth in schools in Canterbury post-disasters was informative (Hone et al., 2021) as was the study on the effects of the disasters on social service agencies (van Heugten, 2014)

In this next Chapter, the Literature Review examines suicide risk factors, prevention strategies and policies, cross-collaborative approaches and considers differing suicide prevention implementation models that might be useful in implementing collaborative suicide prevention locally, regionally and nationally.

Chapter Two: Literature Review – Suicide Prevention and Implementation and Cross-Collaborative Approaches.

The direction for further research into suicide prevention calls for a move beyond a focus on the risk factors to look at the collective processes that lead to suicidal distress and death (Kolves et al., 2021). To consider potential cross-collaborative implementation models of suicide prevention it is important to understand risk factors for suicide, components of suicide prevention, suicide prevention strategies that ensure a socio-ecological approach; and implementation science.

This Chapter examines known risk factors for suicide, national and international approaches to suicide prevention and historical and current suicide prevention strategies and implementation in Aotearoa New Zealand. Cross-collaborative and implementation science models are then considered with a view to examining their potential for application to cross-sectoral suicide prevention implementation with a final focus on Collective Impact as a possible suicide prevention framework.

Literature was obtained from a variety of sources including the University of Canterbury library, google scholar, PubMed, researchgate, sagepub, ScienceDirect, CDHB, Community and Public Health (CPH), the World Health Organisation (WHO), New Zealand Government (NZ Govt), Ministry of Health and the New Zealand Family Violence Clearinghouse (NZFVCH). Key search terms included risk factors for suicide, suicide prevention strategies, suicide prevention implementation, suicide prevention funding, cross-sectoral strategies and implementation science including the Collective Impact model. Resources utilised originated both from New Zealand (163) and internationally (110) and comprised 137 journal articles, 69 reports and strategies, including New Zealand and international government strategies and policy documents, 31 resources from media and commentary, 30 websites and ten books. Sources also included one video file and two radio transcripts.

2.1   Risk Factors for Suicide

Social Work examines a person or family in context as part of a wider and complex ecosystem to identify and maximise strengths in their environment to support wellbeing

(O'Donoghue & Maidment, 2005). This socio-ecological approach to providing complex support

stems from the work of Bronfenbrenner (1979) one of the forefathers of implementation science.

Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1979) identified five levels, or

systems, of external influence affecting a child. The closest system is the *microsystem*, (family,

school, peer group) followed by *mesosystem* (sporting team, church, community), then *exosystem*

*(*family friends, peripheral associates), *macrosystem* (social and cultural values, beliefs, shaped by

the community, environment) and finally the *chronosystem,* describing changes over time in the

system such as economic recessions, societal changes and technological advances (Bronfenbrenner,

1979). Rules, norms and roles shape the child as do the ways in which the systems interrelate and

interconnect and environments can change rapidly (Bronfenbrenner, 1979).

In discussing a practice competency framework based on ecological system theory for social

workers working in disaster management, Sim et al., (2022;2021) discussed the ability of social

workers to work across the ecological systems and their capacity for facilitating collaboration across

sectors. Work across the macrolevel encompasses policies, education and research, mesolevel

practice occurs with vulnerable groups and communities to increase resilience, whilst microlevel is

targeted to individual casework and support. Disaster management is a complex and dynamic

undertaking, with many similarities to suicide prevention in that it encompasses mitigation,

preparedness, response and recovery (Sim et al., 2022;2021).

Socio-ecological models utilised by social work (O'Donoghue & Maidment, 2005) align with

the suicide prevention approach of utilising a mix of universal, selected and targeted approaches to

strengthen individuals, families and communities (WHO 2012; WHO 2021) as discussed in this study

in section 2.2. As this study focused on suicide prevention implementation however, none of these

adaptations appeared to offer a cross-collaborative approach.

Socio-ecological factors that increase the risk of suicide must be considered when

attempting to prevent suicide. The precursors are complex as suicide is the "end product of a

complex interplay of neurobiological, psychological and social processes" (O'Connor & Portsky, 2018, as cited in Kolves et al., 2021, p 1).

Microsystem impacts, including individual risk factors for suicide, are complex and intersect. A known predictor of increased risk for suicide is suicidal behaviour leading to a previous suicide attempt (Beautrais, 2001; Gaines, 2020; WHO 2014) however this occurs within a context of despair caused by any one or more of the factors below. Mental health illness is a risk for suicide (Gaines, 2020; Menzies et al., 2020: WHO, 2014, WHO, 2021). Söderholm et al., (2020) found rates of suicide attempts varied from 16% to 90% according to diagnosis, with the most risk attributed to a diagnosis of personality disorder, supporting the earlier findings of Zalsman et al., (2016). Two thirds of suicide deaths in Aotearoa New Zealand were not under specialist mental health services care (Shahtahmasebi, 2013), underscoring the need to provide broad prevention strategies beyond mental health services.

Alcohol dependence is an indicator for suicide (Witt & Lubman, 2018), damaging relationships, increasing risk of unemployment (Boden et al., 2013) and inducing feelings of shame, stigma and worthlessness, all suicide risk factors in themselves (Witt & Lubman, 2018). Heavy bouts of drinking (binge drinking) also increases the risk of suicide significantly (Edwards et al., 2020, Gaines, 2020). In Aotearoa New Zealand, 21% of adults meet hazardous drinking criteria (MOH, 2020, as cited in Crossin et al., 2021). Alcohol use is a modifiable socio-ecological risk factor for suicide in Aotearoa New Zealand at all levels of the ecosystem in New Zealand and restricting alcohol and increasing the age limit for consumption could save lives (Crossin et al., 2021; Gaines, 2020; Stack, 2021) but requires political and regional support (Gaines, 2020). Although alcohol is the most prevalent drug, other programmes for other drug misuse are also indicated in preventing suicide (Gaines, 2020; Menzies et al., 2020; Witt & Lubman, 2018).

Microsystem impacts such as relationship difficulties are another risk factor for suicide (Beautrais et al., 1997; WHO, 2021; Wyder et al., 2009). An Australian study found risk from suicide was four times higher if separating from a partner and especially high for young males aged 15 to 24

years (Wyder et al., 2009). Building socio-emotional skills in adolescents is one of the four key effective suicide prevention interventions identified by the WHO (2021), underpinning the importance of relationship skills.

The Adverse Childhood Experiences (ACE) landmark study conducted in America in 1998 found a 5000% increase of likelihood of suicide attempts between a score of zero (no adverse experiences) to a score of 6 (multiple adverse experiences) in children who experienced childhood abuse, trauma and household dysfunction, mainly attributable to the microsystem (Felitti et al., 2019). A further study estimated 25-44% of all adult mental health disorders, which increase suicide risk, were attributable to childhood adversity (Green et al., 2010, as cited in Johnstone et al., 2016). Inadequate parental care in childhood was found to be a significant factor in suicide attempts and self-injury in an Aotearoa New Zealand cohort of adults with depression (Johnstone et al., 2016). Programmes such as the Abecedarian Project in 1972 (Ramey et al., 2000) found substantial gains in educational, health, economic and cognitive areas and resilience for children where parental support for maternal attachment and a secure home environment was provided in the early years of life. The First 1000 Days of a person's life is now viewed as providing the best opportunity to improve life outcomes by targeting parental support (Green et al., 2010, as cited in Johnstone et al., 2016). The ACE study also emphasised a trauma-informed care approach to increase resilience and heal trauma, a concept encouraged nationally in Aotearoa New Zealand (Te Pou, 2018). Violence, abuse and trauma (Felitti et al., 1998; WHO, 2021; Zalsman et al., 2016) and isolation all increase suicide risk at a microsystem level. Chronic pain, independent of other risk factors, is also a microsystem risk factor for suicide (Barak et al., 2022) and Racine (2018), proposes incorporating suicide prevention into chronic pain management.

Mesosystem impacts include stigma against those with mental health illness (Rimkeviciene, 2015), generational stigma around mental illness and suicide (Tiatia-Seath, 2014) and media reporting that sensationalises suicide, increasing the possibility of people copying the act (WHO, 2021).

Chronosystem effects such as unemployment and involuntary job loss are significant risk factors for suicide (Chang et al., 2018; Keefe et al., 2002, Milner et al., 2014). A study on the 2008 global economic crisis reported an increase in male suicides across 54 countries with high job losses (Chang et al., 2018). Job loss is an important consideration in 2022 where economic effects of COVID-19 over the last two years have resulted in significant job losses. Amongst Aotearoa New Zealand youth aged 13 – 24 years who attempted suicide, a common risk was financial difficulties as found by Beautrais et al., (1997) and found internationally by Gassman-Pines et al, (2014).

Socioeconomic deprivation is a strong chronosystem risk indicator for suicide (Chiang et al., 2021, Gaines, 2020; MOH, 2019; Stack, 2021; WHO, 2021), one that could be countered by increasing social welfare expenditure and the living wage (Stack, 2021). The Child Poverty Action Group New Zealand called for urgent action to reduce income poverty in 2018, citing the high rates of suicide amongst Māori and youth as one of the pressing reasons for intervention (Asher, et al., 2018). Although the New Zealand Wellbeing Budget of 2019 (MOH, 2019) attempted to address socioeconomic deprivation (Gaines, 2020), the COVID-19 pandemic may prevent gains.

Other chronosystem risk factors increasing the likelihood of suicide include difficulties accessing timely and appropriate health care (Gaines, 2020; MOH, 2019; Mokkenstorm et al., 2018; WHO, 2021) and easy access to means (WHO, 2021). The effects of colonisation or acculturation (Durie et al., 2017; Hatcher, 2016; Lawson- Te Aho & Liu, 2010; WHO, 2021) also increase risk factors at a community level (WHO, 2014). Moreover, the focus on singular psychological interventions to increase resilience rather than family/whānau-based approaches has not been effective for Māori and Pacific populations (Durie et al., 2017; Lawson-Te Aho & Liu, 2010; Tiatia-Seath, 2014).

People living in areas with wars, conflict or disaster (chronosystem impacts) are at risk of increased mental distress and suicide (Devitt, 2020; Gluckman, 2011; Liberty et al., 2016: Orui, 2020; WHO, 2014), an important consideration for people living in Canterbury having experienced three major disasters since 2010. A Japanese study on suicides post-earthquake showed a brief increase in suicides followed by a substantial decrease for two years before increasing to above the national

rates (Orui, 2020). Orui (2020) cited housing concerns as one of the great contributors to distress in the region, aligning with the experience of Cantabrians. Devitt, (2020) examined previous studies on the effect of disasters on suicide rates including war and violence, natural disasters, epidemics and economic recessions worldwide and concluded economic recessions were the most toxic in terms of suicide rates increasing. Devitt suggests people most at risk of increased mental distress from COVID-19 effects will be healthcare workers, elderly and those adversely economically affected (Devitt, 2020).

Suicide risk factors are considered further in the study when discussing the socio-ecological impacts of the disasters on people in Canterbury. By identifying and understanding risk factors for suicide it is possible to identify socio-ecological strategies to reduce suicide attempts and deaths but due to the multiple risk factors this is a complex undertaking.

2.2 Social Work and Suicide Prevention

Social Work as a profession is uniquely placed to formulate and undertake suicide prevention due to the emphasis on considering the person within their wider environment (Levine & Sher, 2020) and their strengths-based holistic approach to recovery (Ali et al, 2021). Social Work education provides students with knowledge that equips them to work in a variety of cross-sectoral social service and government departments. Knowledge of human development, mental health and addictions, community development, social policy, the legal system, social service management and cultural identity enables social workers to see beyond the individual to the complex systems (Maple et al., 2017) that support or impact mental wellbeing. Social workers are taught to advocate for the populations they support at an individual, family, community and regional level. A such they can therefore intervene at all levels of the socio-ecological system to provide universal, selected and targeted suicide prevention interventions (Ali et al., 2021; Maple et al., 2017).

Ali et al., (2021) and Levine & Sher, (2020) suggest there is potential for social workers to reduce suicide risk by increasing their role in suicide prevention. Social workers outnumber psychiatrists and psychologists and by equipping social workers with suicide prevention skills during

and after their social work education, the suicide prevention workforce would increase substantially across sectors (Levine & Sher, 2020; Maple et al., 2017). Levine & Sher (2020) concluded that educating social workers to provide gatekeeper training (suicide intervention skills), postvention support, family and community suicide prevention education on wellbeing as well as equipping them with skills to assist people with suicidal distress, could reduce deaths from suicide.

The majority of social workers will encounter people who have an increased risk of dying by suicide (Mirick, 2020). An American study of social work students (Osteen et al., 2014), found the students felt unprepared to work with people with suicidal thoughts and behaviours. Maple et al., (2017) suggested the gap in suicide prevention training for social workers was due to a lack of training in skills-based applied interventions for suicidal persons as opposed to embedding knowledge that supports the identification of vulnerability in a person, community or population. Maple (2017) and Scott (2021) said that the inclusion of skills such as cognitive behavioural therapy (CBT) for depression and suicide prevention (CBT-SP) into social work education may equip social workers with a better skill set to assist persons with suicidal thoughts and behaviours. Similarly, Sampson (2017) proposed the inclusion of Dialectical Behavioural Therapy (DBT) skills training, an effective therapy for behaviour that can cause suicidal distress. Cooper and Parsons, (2010, as cited in Ali et al., 2021) found a social work background assisted the provision of DBT as it utilised prior knowledge and delivery skills. These are quite specialised psychological interventions and Kourgiantakis et al., (2022:2020) suggested broader social work training in mental health, addictions and suicide. Mirick (2020) advocates for social work education that contains suicide intervention practice guidelines and continuing suicide prevention education programs, including teaching resources for social work instructors.

The majority of current research on training social work students and social workers in suicide prevention and intervention skills is Amercian (Kourgiantakis et al., 2022:2020). Research in Aotearoa New Zealand on social work and suicide prevention is indicated to increase the evidence base, standardise social work suicide prevention education (Kourgiantakis et al., 2022:2020) and to

support social work practice in mental illness, addictions and suicide (Levine & Sher, 2020: Maple et al., 2017).

Articles that support the role of social work in suicide prevention in Aotearoa New Zealand (Ali et al., 2021) illustrate the socio-ecological knowledge and skills that social workers bring to their practice that support effective outcomes people with suicidal thoughts and behaviours through psychosocial interventions. This study focuses on cross-sectoral socio-ecological suicide prevention implementation and the increase of an informed and skilled social work workforce in suicide prevention would no doubt reduce suicides in Canterbury and Aotearoa New Zealand.

2.3   Suicide Prevention Strategies

Suicide has been deemed a "wicked problem", a phrase used by design theorists, (Rittel & Webber, 1973) to define the complexity and challenges of addressing social policy problems. Identifying people at risk of suicide is clinically difficult (Mulder et al., 2016) and not all people who take their lives are seen by mental health services. Broad strategies that reach the wider population are therefore required (WHO, 2014).

Suicide prevention strategies and frameworks are a recent occurrence. The first international suicide prevention strategy was published by the UN as a guideline (UN, 1996) and progressed by the WHO into a 'framework" in 2012 (WHO, 2012). "Preventing Suicide; a global imperative" followed shortly after from the WHO, representing a "significant resource for developing a comprehensive multisectoral strategy" (WHO, 2014, p.2). The World Health Organisation (WHO, 2014 p.10) suggested three broad strategies to mitigate risk factors;

1.   **Universal** prevention - population-based strategies such as promoting mental health, increasing access to health care, reducing the harms of alcohol and ensuring responsible media reporting. Research confirms strategies targeting whole populations have the most effect on reducing suicide (Kolves et al., 2021; WHO, 2021).

2.   **Selective** prevention strategies - targeting groups at risk such as people bereaved by suicide or who have experienced trauma, disaster or abuse.

3. **Indicated** strategies - targeting individuals most at risk. Interventions suggested are education and training in suicide prevention, identification by health workers of those at risk and standardised management for people with mental health and substance disorders. Behavioural techniques including positive coping strategies and relationships techniques are helpful (WHO, 2012; WHO 2021).

These strategies remain current and over 38 international strategies cite the WHO in formulating prevention frameworks (WHO, 2021). A public health approach can target interventions in these three areas whilst strengthening the overall environment, however this needs to be supported by systems that can monitor occurrence and evaluation that can measure effectiveness (Yip &Tang, 2021). Although other studies have considered the socio-ecological requirements for suicide prevention interventions at all levels of the ecosystem (Cramer & Kapusta, 2017; Zalsman et al, 2016) no other suicide prevention frameworks have been adopted internationally, underscoring the complexity of multi-level socio-ecological implementation.

Australia's current national suicide strategy, "Living is for Everyone" (LIFE) was developed in 2000 (Australian Government Department of Health, [DOH] 2019) and is the operational framework for the National Suicide Prevention Strategy (NSPS). Six action areas encompass the universal, selected and targeted interventions and focus on;

1. improving the evidence base and understanding of suicide prevention;

2. building individual resilience and capacity for self-help;

3. improving community strength, resilience and capacity in suicide prevention;

4. taking a coordinated approach to suicide prevention;

5. providing targeted suicide prevention activities and

6. implementing standards and quality in suicide prevention (Australian Government DOH, 2019).

The NSPS was utilised by the differing states and territories to develop their own plans and a $44.5M programme to grow leadership and support in suicide prevention and research,

including a centre of best practice in Aboriginal and Torres Strait Islander (ATSI) prevention was announced in 2016 (Pirkis et al., 2020). A renewed effort to address rising national suicide rates in Australia occurred in 2020, focusing on national leadership; strong local implementation of activities; prioritising ATSI and best practice aftercare for people attempting suicide (Pirkis et al., 2020).

England, Scotland, Wales, Northern Ireland and the Republic of Ireland each have their own strategies (Samaritans, 2022) assisted by the Samaritans, a non-Government agency who collate suicide data, undertake research and provide strategic policy advice for all five countries (Samaritans, 2022). The English strategy, "Preventing suicide in England: A cross –government outcomes strategy to save lives", (Department of Health, 2012) has action areas closely aligned to Australia. An evaluation of this strategy (Balogan, 2018, p.4) suggested the policy "is light on the how" and requires leadership, clear accountability lines and a detailed implementation plan. Balogan also argued the United Kingdom (UK) government austerity measures may undermine the strategy by increasing poverty and deprivation.

In the United States of America (US), the "National Strategy for Suicide Prevention" was released by the U.S Surgeon General and National Action Alliance for Suicide Prevention (NAASP) in 2012, (Office of the Surgeon General (US, & National Action Alliance for Suicide Prevention (US. (2012). The Strategy consists of 13 goals and 60 objectives for suicide prevention, contained within four strategic directions;

    a.   Healthy and Empowered Individuals, Families and Communities;

    b.   Clinical and Community Preventative Services;

    c.   Treatment and Support Services and;

    d.   Surveillance, Research and Evaluation. (Office of the Surgeon General (US, & National Action Alliance for Suicide Prevention (US. (pg.9, 2012).

The US strategy is over 10 years old and due to suicide rates increasing by a third from 1999-2018, the Surgeon General released a "Call to Arms" to fully implement the national strategy using a multi-

sector and whole of government approach (Iskander, 2021), but how this will be implemented is unclear.

Worldwide, national suicide prevention strategies (WHO, 2021) align with the WHO approach to provide universal, selected and targeted interventions and many strategies span over ten-year periods, with accompanying action plans updated more frequently. The WHO released a new suicide prevention implementation guide, "Live Life" (WHO, 2021) in 2021, updating their 2014 framework (WHO, 2014) and providing extensive examples of international suicide prevention implementation. This framework is considered in more depth later in this chapter.

In some countries action plans sit alongside national strategy and outline how approaches will be delivered and by whom but not all plans are reported on or have measurable targets (Lewitska et al., 2019; Mann et al., 2005; Zalsman, 2016). Literature on the effectiveness of national suicide prevention programs is scarce, with studies citing difficulty in establishing evaluation criteria (Kerkhof & Clark, 1998; Lewitska et al., 2019) however they do conclude national strategies are effective in reducing suicide rates (Lewitzka et al., 2019; Matsubayashi & Ueda, 2011; Rezaeian, 2021). A Western Pacific Region study recommended national strategies are effective when they include adequate funding; a range of universal, selected and targeted suicide prevention approaches that support the whole ecosystem including postvention and gatekeeper activities and training for professionals in suicide prevention (Pirkis et al., 2020). National strategies informed by lived experience and those bereaved by suicide are key, with a focus on evaluations of strategies and programmes and monitoring of self-harm and suicide (Lewitzka et al., 2019; Pirkis et al., 2020; Rezaeian, 2021).

2.4   Previous Aotearoa New Zealand Suicide Prevention Strategy

The first Aotearoa New Zealand suicide prevention strategy, "In Our Hands: The New Zealand Youth Suicide Prevention Strategy" was jointly published by the Ministry of Youth Affairs, Ministry of Health and Ministry of Māori Development: Te Puni Kokiri, (Ministry of Youth Affairs et al., 1998) in 1998 as a response to the high suicide rate amongst youth. A two-phase independent

evaluation in 2003 and 2005 (Collings, 2006; Stanton, 2003) identified the strategy as strongly

evidence based, developing new initiatives that supported schools and primary care providers and

implemented monitoring of suicidal risk in the statutory child protection agency. Areas viewed as

not effective were dividing the intervention approach for Māori and non-Māori youth, a comment

that supported work by Newton-Howes et al., (2013;2014;) but one contrary to the dominant

discourse on the provision of mental health care for Māori (Coupe, 2000; Durie, 2017; Lawson-Te

Aho & Liu, 2010; Lawson-Te Aho & McClintock, 2020; MOH, 2019). Comment on lack of defining

actions to support the direction; and a lack of leadership and accountability for implementation

(Collings, 2006; Stanton, 2003) were also noted. Stanton commented that collaborative working was

restricted by government accountability and sector fragmentation and called for an all-ages strategy

as over 75% of suicides were occurring in people aged over 24 years (Stanton, 2003). Phase two

recommendations focused on the establishment of an information base and suggested

improvements in the communication and the implementation of the strategy (Collings, 2006).

The following "New Zealand Suicide Prevention Strategy 2006 – 2016" (MOH, 2006),

contained seven goals consistent with the WHO framework. The strategy principles stated that all

actions should be; evidenced based; safe and effective; responsive to Māori; recognise and respect

diversity; reflect a coordinated multi-sectoral approach; demonstrate sustainability and

acknowledge everyone has a role in suicide prevention and; commit to reducing inequalities (MOH,

2006). The 2006 – 2016 Strategy sought to "develop a collaborative approach to suicide prevention,

coordinated across government agencies and integrated across the public and private sectors"

(MOH, 2006, p.6). Actions to tackle suicide rates for Māori needed a "multi-faceted approach

ranging from inter-sectoral action, health promotion and public interventions, primary health care

delivery and specialised clinical care" (MOH, 2006, p.10). The Strategy noted a multi-sectoral

approach appears where services are "coordinated, integrated and where people clearly understand

each other's role. This requires collaboration across sectors and communities and between

government and non-government organisations" (MOH, 2006, p.14).

Two action plans accompanied the Strategy, 2008 – 2012 (MOH, 2008) and 2013 – 2016 (MOH, 2013). Two reports were released by the MOH in 2009 and 2011 outlining progress against the first action plan (MOH, 2009; MOH 2011). A third progress report was not written and suicide rates did not decline (Pirkis et al., 2020). The 2013 -2016 action plan tasked the MOH to develop an outcomes framework with indicators to show the effectiveness of the actions but this was not delivered. An Inter-Agency Committee on Suicide Prevention (IACSP) comprising 13 government agencies formed to monitor progress in implementing the Action Plan from 2008 -2011. The Action Plans were detailed, giving clear instructions on the actions to be achieved and were accompanied by a Suicide Prevention Toolkit for District Health Boards, providing guidance for DHBs on establishing local suicide prevention plans, in 2015 (MOH, 2015).

The Strategy focused on Māori and Pacific youth but there was no focus on older adults or men, no plans for education for clinicians, no evaluation of the previous strategy, a 3 - 4 year time lag remaining in coronial reporting and no training or research centre to provide overall leadership for suicide prevention (Pirkis et al., 2020). The 2006 -2016 New Zealand Government suicide prevention strategy was criticised as failing Māori (Lawson & McClintock, 2020) as it did not provide opportunity for Māori self-determination and did not reduce Māori suicides.

Seven imperatives for Māori suicide prevention in Aotearoa New Zealand were formulated following a Summer School Symposium on Māori Research Policy and Practice in 2020 that focused on; addressing the harms of colonisation by addressing racism; valuing Māori intelligence, connection and genealogy; using Māori spirituality and healing; fostering Māori research and wisdom; eliminating racism; leveraging off existing policies and promoting language and; ensuring whanau are at the centre of suicide prevention (Lawson & McClintock, 2020). These imperatives had not been visible in the 2006 – 2016 New Zealand strategy.

Studies on supporting Pacific suicide prevention found Pacific community interventions were effective where they increased awareness in a culturally appropriate way to lower stigma and increase help-seeking, where they provided education on the warning signs of suicide that are

unique to Pasifika and where skills were taught that strengthened supportive relationships (Falelafa, 2021). These approaches were also not discernible in the 2006 – 2016 Strategy.

2.5 Government Inquiry into Mental Health and Addictions and 2019 Wellbeing Budget.

In 2018, an independent Government Inquiry into Mental Health and Addiction in New Zealand (GIMHA), (the Inquiry) was held due to concern over the provision and approach of mental health services in Aotearoa New Zealand (GIMHA, 2018). The Inquiry found despite goals of prevention, early intervention and increased community support, little progress had occurred in strengthening mental health (GIMHA, 2018). The persistently high suicide rates were emphasised, especially in youth and males (GIMHA, 2018) and the Inquiry bemoaned the lack of support for families bereaved by suicide and a coronial process taking up to three years per case. The Inquiry was extensive and a Submissions Summary Report of the 5200 submissions received by the Inquiry and 400 meetings attended (GIMHA, 2018), contained comment on the 2006-2016 New Zealand suicide prevention strategy. Submitters said the strategy lacked specific Māori and Pacific approaches and responses and called for the implementation of the Tūramarama ke te Ora Māori Suicide Strategy (Durie et al., 2017) to address high rates of Māori suicide. Other criticisms were the lack of specific strategies for Rainbow (LGBTIQA+), Asian and Refugee communities and older people and the need for a new strategy to replace the outdated 2006-2016 strategy. Some submissions said the 2006 -2016 strategy was sound but required better implementation (GIMHA, 2018). There was a call to integrate the 'top down' approach with the 'bottom up' collaborative efforts and address the limitations of the current strategy by improving "collaboration, collective action, funding and focusing on wider causes in a collective" (GIMHA, 2018, p 247). Submissions requested the establishment of a new Mental Health Commission to; "focus on wellbeing; provide cross-government commitment and accountability to support transformation; formulate legislation to be independent from government and; to provide an agreed national vision and long-term strategic direction" (GIMHA, 2018, p51).

The Inquiry resulted in "He Ara Oranga: Report of the Government Inquiry into Mental Health and Addiction" (the Report), released in 2018 (GIMHA, 2018). The Report was comprehensive, supporting wellbeing and community approaches, increased access to services and treatment options, earlier intervention and prevention, and cross-government action to address socioeconomic factors. The Report inferred suicide prevention had suffered from a lack of resources and effective implementation (GIMHA, 2018). Stronger and sustained leadership was called for, including;

1. the establishment of a national Suicide Prevention Office;

2. a comprehensive, well-resourced suicide prevention strategy and implementation plan to be urgently completed;

3. a suicide prevention target of 20% reduction in suicide rates by 2030 and;

4. more investment to support bereaved families and whanau and a review of the coronial process, to make them responsive to the needs of bereaved families and whanau (GIMHA, 2018).

The Report said suicide prevention recommendations were a cross-party and cross-sectoral national priority (GIMHA, 2018). The New Zealand Government supported the suicide prevention recommendations except the target of a 20% reduction in suicides by 2030; the Minister for Health, Dr David Clark, stating the government were "not prepared to sign up to a suicide target because every life matters, and one death by suicide is one death too many" (New Zealand Government, 2019, May 29).

In May 2019, the New Zealand Government delivered the "Wellbeing Budget" (MOH, 2019). A four-year mental health package was announced to deliver new services and expand existing services. $455.1M to expand primary mental health and addiction support through providing mental health workers (Health Improvement Practitioners (HIPs) and Health Coaches (HCs) in General Practitioner clinics and iwi and Pacific health clinics (MOH, 2019) was budgeted. Budget initiatives also targeted frontline services; providing more nurses in schools, wellbeing promotion in primary

schools, expanding telehealth and digital mental health support, crisis presentation responses, parenting support and development of a new Mental Health and Wellbeing Commission (MHWC) (MOH, 2019). Areas besides health to receive funding were addiction services, victims of crime and boosting social determinants by improving employment and supporting housing options. All funding initiatives had the ability to lower the risk factors for suicide. Suicide Prevention work was to be expanded and improved by $40M over four years to;

a. establish a national suicide bereavement counselling fund to provide up to four free sessions for those bereaved by suicide;

b. create tailored Māori and Pacific suicide prevention initiatives;

c. expand family/whanau suicide prevention information service

d. increase post-discharge support in District Health Boards;

e. review the coronial data service and;

f. work with the media to support responsible media discussion about suicide across all media and social media (MOH, 2019).

This $26 billion investment in psychological services and social determinants demonstrated a population wellbeing approach through a cross-sectoral investment in mental health and wellbeing. The budget supported many of the recommendations of the GIMHA Report, providing selected and targeted support to communities and individuals at risk. The government intended to measure the long-term outcomes of this investment through the "Treasury Living Standards Framework" measuring multiple domains including health, cultural identity, connectedness and wellbeing markers (Anderson & Mossialos, 2019). The implementation of the wellbeing budget attracted attention with Anderson and Mossialos (2019, para. 6) commenting that "without measures to enforce public accountability, it could become another parliamentary process with policy-makers not taking meaningful actions". The Wellbeing budget was lauded as innovative, being the first budget in the world to treat public policies as investments to improve wellbeing, thereby reducing public spending on supporting social harms (Mintrom, 2019). Subsequent critique suggests that

although the intention is sound, in Aotearoa New Zealand the process for implementing the

Wellbeing Budget was too centralised, as opposed to more devolved processes such as that seen in

the UK whereby the local government which has a closer connection to the community and

determines the spend to inform service provision (McKinley, 2022). Without major structural

change, Postan-Aizik & Strier (2021), suggested social policy investment can perpetuate

discriminatory and oppressive practices. This devolved approach is set to occur in health in Aotearoa

New Zealand in 2022 as the DHBs transition to four large regions informed by localities, the localities

comprising a population of approximately 50,000 people (Health and Disability System Review,

2020). The localities may be strengthened further by the impending Local Government Act 2023

which extends local government influence to supporting local wellbeing (McKinley, 2022).

Government reporting on the effectiveness of the budget also raised concerns that the average

increases will be focused upon at the expense of areas where need is the greatest and that multi-

causality will complicate evaluation (McKinley, 2022).

The budget included funding to establish a national office for suicide prevention, supporting

a national direction that might provide standardised approaches to suicide prevention, improve

surveillance, evaluation and the implementation of strategies (MOH, 2019). This budget focus is

considered below.

2.6 Every Life Matters – He Tapu te Oranga o ia Tangata*: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand*

On 10 September, 2019, *Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide*

Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New

Zealand was released (MOH, 2019). The Strategy outlined the direction on how "we can work

together in a coordinated way to achieve the vision" (MOH, 2019, pg 1) with a five-year Action Plan

outlining the "specific actions that will be undertaken to help achieve the vision to prevent suicide

and support people affected by suicide in Aotearoa New Zealand" (MOH, (2019, pg 1.) *Every Life*

Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide

Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand supported the broader

transformation of the mental health and addiction system and focused on the establishment of a

national Suicide Prevention Office, supported by a Māori and Lived Experience Advisory function, to

drive the Strategy. The first four action areas sought to strengthen national leadership at the socio-

ecological macrosystem level by creating a national framework to advise, support and monitor

progress on both national and local suicide prevention plans. Developing a national research plan,

establishing a research advisory programme and creating an evaluation and monitoring framework

for *Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and*

Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand were actions identified to

support the strategy (MOH, 2019). Providing suicide prevention resources, joint funding for cross-

sectoral activities, whanau-centred programmes, responding to the Wai 2575- Health Services and

Outcomes Inquiry[1] (Ministry of Justice, [MOJ] 2019) and developing workforce were actions to be

progressed by the national office (MOH, 2019).

  The following four actions aligned with the WHO framework of promoting wellbeing, suicide

prevention, intervention and postvention support at the socio-ecological microsystem and

mesosystem levels (WHO, 2014). Supporting wellbeing in schools and the tertiary sector, supporting

young people transitioning from care and youth justice settings, strengthening cultural identify for

Māori and providing wellbeing programmes for youth, Māori, males, Pacific, Rainbow and rural

communities at risk were actions included to improve wellbeing (MOH, 2019). Preventing and

responding to people in suicidal distress and designing resources to support them were targeted

responses, supported by the establishment of a national quality framework for monitoring and

managing suicidal distress and behaviour, including accountability and reporting (MOH, 2019).

Support for first responders, a review of the coronial process, and national suicide bereavement

counselling were actions within the postvention area as were postvention support and resources for

communities (MOH, 2019).

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[1] Waitangi Tribunal Health Services and Outcomes Inquiry

Many of these new actions were national actions that provided scope to tailor a local approach to suicide prevention. An Action Plan for 2019 – 2024 was embedded in *Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand.* providing broad goals but did not contain the level of detail that the previous action plans did. There were some notable omissions in *Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand.*, one being the lack of any age appropriate actions to combat the high rates of suicide in the elderly (Barak et al., 2021). Suicide Prevention Coordinators were mentioned only briefly with regard to developing local action plans, despite being the local coordinators of activities and reporting in DHBs and being integral in coordinating prevention and postvention activities in Aotearoa New Zealand. Training the workforce was an action however that possibly spoke to the absence of any standardised qualifications to employ suicide prevention coordinators. Growing peer led services was also mentioned (Sutherland, 2019).

The NZ Mental Health Foundation (MHF) described the strategy as strong and innovative and supported a new Office of Suicide Prevention, hoping it might counter the "vacuum of leadership" in suicide that had contributed to "division, fractured services and poorer mental health outcomes for vulnerable people" (MHF, 2019). MHF hoped the office would not only deliver the strategy but also coordinate suicide prevention implementation, "ensuring strong, coordinated leadership at all levels and across all sectors: across Government, within health, education and social sectors, and in communities (MHF, 2019). MHF were disappointed a separate Māori suicide prevention strategy was not considered, urging the government to recognise Tūramarama ki te ora as the suicide prevention strategy path for Māori (Durie et al, 2017). There was no specific plan for addressing the impact of alcohol on suicidal distress however the He Ara Oranga recommendation to establish clear cross-sector leadership and coordination within central government for policy in

relation to alcohol and other drugs had been agreed by the government so perhaps it was not required.

Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand reflected the recommendations from the Report (MOH, 2018) that suggested a lack of leadership from Government and paucity of direct funding for suicide prevention activities locally and nationally. The announcement of $40M over four years to support the implementation of Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand. was helpful but when considering the establishment of a New Zealand Suicide Prevention Office and accompanying actions, $10M per annum for a population of over 5 million people amounts to approximately $2.00 per person per year. With the annual numbers of suicides close to double that of the road toll in Aotearoa New Zealand in 2017, (378 commuters killed (NZ Transport Agency, 2018) and 668 reported deaths from suicide (MOJ, 2018) the funding was disappointing considering a $4.3b package over four years to reduce deaths and injuries on the roads was announced in 2018 (NZ Transport Agency, 2018). Suicide prevention is, however, supported by the cross-sectoral actions and considerable funding contained in the Wellbeing Budget (MOH, 2019).

In 2020, a report was commissioned by the New Zealand cross-party Mental Health and Addiction Wellbeing Group (MHAWG) formed to provide members of Parliament with evidence, information and knowledge on improving mental health and addiction. Zero Suicide Aotearoa (ZSA)(Gaines, 2020) was the cross-party's first report, prioritising suicide due to the high rates in Aotearoa New Zealand. ZSA stated initiatives had to be "politically anchored within the knowledge and skills that already exist in local communities and supported by stakeholders – including politicians" (Gaines, 2020, p.7). ZSA endorsed the WHO 2014 multi-level systems framework (WHO, 2014) citing the need for a "multi-sectoral, holistic, public health approach that targets multiple levels of the system at the same time" (Gaines, 2020, p.13). The MHAWG said they would monitor

the short and long-term impacts of government investments and "consider the costs, benefits and value of various programmes, policies and strategies that target multiple points in the system" (Gaines, 2020, p.24). Success was identified as a reduction in suicide attempts and deaths with "an ultimate aim being zero suicide" (Gaines, 2020, p.25). The Zero Suicide Framework, an evidence-based health framework launched in the United States in 2012, was profiled (Gaines, 2020, p.10), however there was no recommendation for it to be implemented nationally (Gaines, 2020; Pirkis et al., 2020).

ZSA acknowledged the impact of the COVID-19 pandemic, emphasising the need to position "mental health, mental wellbeing and suicide prevention as an integral part of the economic and social recovery of New Zealand" (Gaines, 2020, p.29). Five actions were recommended; strengthening the national stewardship role of Parliament in suicide prevention; strengthening local and national infrastructure supporting the implementation and monitoring of actions in *Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand*; choosing one high priority group to focus on for the year; supporting the targeted group with an evidence based strategy and; identifying a population based strategy, possibly one supporting the COVID-19 response (Gaines, 2020, p.30). There was no clear mechanism or timeframe on the implementation of these recommendations and no update visible on whether these initiatives have been progressed. ZSA illustrated the political impetus for suicide prevention and supported a systems approach to suicide prevention. The MHF CEO said the ZSA report was sensible and well-informed but called for a clear action plan to accompany the national plan, *Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand* (MOH, 2019) stating that people need to see "what is going to happen, when it's going to happen and their role in that" (Andelane, 2020).

Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand is Aotearoa New

Zealand's suicide prevention strategy for the next ten years. Although work at the macrolevel to create a new Aotearoa New Zealand Office of Suicide Prevention occurred, communication from the directorate has been sparse. No website to provide updates on progress or initiatives has been launched and national leadership is not visible. Work is underway in 2022 to support suicide prevention research, cross-sectoral data gathering and real-time surveillance (Dr Sarah Hetrick, personal communication, December 2, 2021). Some change at the mesosystem level has also occurred including postvention funding for local initiatives and suicide prevention training for Emergency Department staff (MOH, personal communication, 2 January 2021). A national bereavement service, Aoake te Rā (Aoake Te Rā, 2022), is now providing counselling for those requiring support after losing a loved one, which was an action from the national strategy. The five actions of the cross-party committee are also not visible and whether they have been enacted is unknown.

2.7   Suicide Prevention Implementation

Suicide prevention requires "multifaceted interventions that are delivered at multiple levels across varied dynamic and often complex practice settings" (Gustavson et al., 2021). Cross-collaborative suicide prevention and implementation is encouraged internationally with acknowledgment that a socio-ecological approach is required to mitigate the many risk factors increasing the likelihood of suicide and to address the complexity of suicide prevention (HHS, NAASP, 2012; WHO 2014; Australian Government DOH, 2015; MOH, 2018; WHO 2021).

As discussed, the first international suicide prevention strategy (UN, 1996), promoted intersectoral collaboration, multidisciplinary approaches and continual evaluation. The WHO framework (WHO, 2012) built on the UN strategy saying national suicide prevention strategies can promote public acknowledgement of the magnitude and impact of suicide, signal government commitment, provide a framework for action and identify what might work (WHO, 2012). Suicide prevention strategies should identify stakeholders, gaps in legislation, service provision and data,

outline resources required and communications needed, provide monitoring, evaluation,

accountability and emphasise the need for research (WHO, 2012).

In "National Suicide Prevention Strategies: Progress, examples and indicators" (WHO, 2019)

declared;

> National suicide prevention strategies are essential for elevating suicide prevention on the political agenda. A national strategy and associated action plan are necessary to push forward the *implementation* of suicide prevention. Without these, efforts are likely to abate and suicide prevention will remain neglected. It is fundamental for governments to take the lead in developing comprehensive multi-sectoral suicide prevention strategies for the population as a whole and vulnerable persons in particular. …governments are in a position to lead coordination between multiple stakeholders who may not otherwise collaborate (WHO, 2019, p. iv).

In reviewing national suicide prevention strategies, Platt et al., (2019) confirmed the

framework for national strategies as formulated by the WHO was sound but urged that strategies

and interventions provided be backed by research evidence of effectiveness.

In 2021, the WHO published "Live Life: An Implementation Guide for Suicide in Countries"

(Live Life) (WHO, 2021). Live Life expanded on the previous WHO framework (WHO, 2012) and

provided international examples of the implementation of suicide prevention initiatives. The guide

also asked the questions; What, Why, Where, When, Who and How in relation to four evidence-

based key effective interventions and provided examples of how issues might be implemented and

overcome.

The interventions are;

1. Limit access to the means of suicide;

2. Interact with the media for responsible reporting of suicide

3. Foster socio-emotional life skills in adolescents aged 10 to 19 years. Foster positive mental

health approach, safe school environment, clear protocols where risk is identified and

parental awareness.

4. Early identification, assessment and management of anyone who is affected by suicidal

behaviours – ensure people at risk of suicide or who have attempted suicide get the help

they need. Suicide prevention should be a core component of health systems so intervention can occur early and this should include postvention support (WHO, 2021, p xi).

Six core pillars to effect implementation were listed, the first pillar undertaking a local or national situation analysis using data to plan and influence resources, consulting all stakeholders including specialists and people with lived experience. The second pillar is building multi-sectoral collaboration by sharing knowledge, building a vision, defining roles and actions and undertaking evaluation. Awareness raising and advocacy is pillar three, relying heavily on communication and the ability to influence through messaging, creating a common cause. Pillar four is capacity building, providing culturally appropriate training and education for the workforce working with people at risk. Financing is the fifth pillar, scoping and obtaining the funding required to put strategies and plans into action. Surveillance, monitoring and evaluation is the sixth pillar, obtaining and using data to plan and track outcomes and to define outcomes including rates of self-harm and suicide and the effectiveness of programmes (WHO, 2021).

In responding to the Live Life implementation guide, Reifels et al., (pg.1, 2022) stated it "provides a major global and national policy impetus to harness the rich arsenal of implementation science to foster implementation research and practice in suicide prevention".

Suicide prevention implementation relies on a complex interplay of factors including policy considerations, availability of funding and resources, equity and population needs and current care provision, with differing levels of quality and practice alignment (Reifels et al., 2022). Suicide prevention implementation strategies generally align with the universal, selected and targeted approaches outlined by the WHO (2012) however possibly due to the complexity or a funding focus on implementation rather than evaluation, "systemic reviews and knowledge about effective implementation strategies within the suicide prevention field are largely missing today, signalling an important research gap to be addressed" (Reifels et al., 2022, p.2). This observation provides additional support for conducting this current inquiry into collaborative suicide prevention in the Canterbury region.

Comment on the effectiveness of suicide prevention implementation reinforces the lack of evaluation with Goldney (2021) questioning suicide prevention public health campaigns that might "normalise" suicide to the extent it is seen as an understandable option. The rise of suicide rates internationally is also leading to questions over the impact of prevention strategies (Goldney, 2021; Iacobucci, G., 2020; Mann et al., 2021: Platt et al., 2019).

How suicide prevention is implemented differs across the world and is driven by the international, national, regional and local context (Gaines, 2020, Pirkis et al., 2020; WHO, 2021). Most countries will have multiple agencies included in their suicide prevention strategies and action plans as does Aotearoa New Zealand, however often they are working on programmes confined within their agencies.

2.8   Suicide Prevention Implementation in Aotearoa New Zealand

Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand (MOH, 2019), the current NZ Suicide Prevention Plan contains a five-year Action Plan (2019 – 2024) that will be replaced by a further five-year plan to 2029. Action Area 4 of the strategy is devoted to the evaluation and monitoring of *Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand* including evaluation of the effectiveness of suicide prevention and postvention programs, a review of the Action Plan and development of a second Action Plan (MOH, 2019) undertaken by the Office of Suicide Prevention, supported by the MHWC. Other oversight may occur through the evaluation of the Wellbeing Budget via the Treasury Living Standards Framework (MOH, 2019) and the MHAWG's commitment to evaluating outcomes as discussed in Zero Suicide Aotearoa (Gaines, 2020). So far there has been no further detailed action plan provided to support *Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand.* The Office of Suicide Prevention has no website or contact details, apart from an email address that can be found on the MOH website, two years on from inception.

Suicide prevention coordination and implementation remains the domain of the health sector in Aotearoa New Zealand currently. Twenty District Health Boards (DHBs) submit a local health-based Suicide Prevention Action plan including postvention responses to the MOH and since late 2018 they report on progress of all action items as well as training activity (Pirkis et al., 2020). Some DHBs receive direct funding for Suicide Prevention Coordinators (SPCs) from the MOH whilst other DHBs employ them directly therefore there is no central agency overseeing DHB SPCs across Aotearoa New Zealand and there is no nationally agreed job description or qualification requirements for SPCs in Aotearoa New Zealand (Pirkis et al., 2020). SPCs coordinate implementation of suicide prevention community-based activities, development of local capacity and gatekeeper programs as well as coordinating postvention responses, aided by the coronial data-sharing service (Pirkis et al., 2020) with whatever resourcing their DHB or local community provides. The MOH currently expects DHBs to develop suicide prevention plans to facilitate cross-sectoral collaboration and activate a postvention plan to reduce the risk of suicide contagion (Newstubb, 2015; Pirkis et al., 2020).

Literature on the effectiveness of suicide prevention programmes in Aotearoa New Zealand is limited (Shahtahmasebi, 2017) and Coppersmith et al., (2018) suggested this prevents an evidence base being used to inform funding for suicide prevention implementation. Coppersmith et al., (2018) also illustrated the need for increased cohesion between suicide prevention researchers and suicide prevention providers to evaluate existing programmes so that new evidence-based interventions can be formulated.

Cross-sectorally, other government agencies besides health provide suicide prevention activities and education/training for staff in Aotearoa New Zealand but there was no literature found on the effectiveness of the training or evaluations of the outcomes of suicide prevention programmes in any of the major government agencies. Although overseas studies confirmed the effectiveness of providing suicide prevention skills training to Police (Ko et al., 2021; Marzano et al., 2016) no literature could be found on the provision and outcomes of suicide prevention skills

training or suicide prevention programmes provided by the NZ Police. Despite being the first responders to people experiencing a suicidal crisis, the information captured by both the Police and Ambulance services for each event is not evaluated, missing an opportunity to understand motives and inform practice (Meurk et al., 2021).

No evaluation or literature was found for the national child protection service's clinical response programme called "Towards Wellbeing" for young people at risk of suicide, or for the Department of Corrections, (DOC) who undertake work to ensure prisoners' mental health and suicidal distress addressed. The Ministry of Education (MOE) evaluated Mana Ake, a Canterbury programme which provides direct psychological support to primary school children and their families (ImpactLab, 2020) concluding it was an effective intervention. Comment on this programme is discussed later in this study.

Programmes contributing to suicide prevention identified by the MOH on their suicide prevention website include work to address bullying and reduce child poverty and homelessness but there is no specific information on what those programmes are or who is delivering them (MOH, 2022). The MOH cites supporting strategies for suicide prevention as the Child and Youth Wellbeing Strategy (Department of the Prime Minister and Cabinet, [DPMC] 2019) the New Zealand Disability Strategy (MSD, 2016) and He Korowai Oranga – Māori Health Strategy (MOH, 2014).

Current non-government leaders in Aotearoa New Zealand suicide prevention include the MHF, who provide resources and information for professionals, people at risk and their families, (MHF, 2019) and Le Va, who provide suicide resources and the national Lifekeeper suicide prevention training (Le Va, 2019). Le Va and Te Rau Matatini deliver culturally responsive suicide prevention (Pirkis et al., 2020). Depression.org.nz is a prominent mental health website in Aotearoa New Zealand, assisting people to seek help for depression and anxiety and to use the tools to assist with improving mood, (depression.org, 2019). The National Telehealth Service, Whakarongorau, (formerly Homecare Medical), provides professional and peer mental health support and guidance and has received large call volumes post mosque attacks and since the COVID-19 pandemic (National

Telehealth Service, 2020). A report released in 2020 on the effectiveness of this service noted the variability in response to mental health concerns but the cohort reviewed comprised nine calls which was small (MOH, 2020) and a more in-depth evaluation of mental health calls would be helpful.

Overall it proved difficult to find any information, literature or evaluations on cross-sectoral suicide prevention training or programs in Aotearoa New Zealand despite national and international suicide prevention strategy consistently advocating for this approach.

2.9   Implementation Science

Suicide prevention outcomes and success rely upon the ability to work with complex systems thus considering the emerging area of implementation science was useful (Wolfenden et al., 2021). Implementation science studies how evidence-based programmes can be embedded to maximise successful outcomes of agreed actions and acknowledges the importance of complex organisations (systems) whilst being aware of wider social, political and cultural influences (Kelly & Perkins, 2012, as cited in Moir, 2018). The move to consider implementation science frameworks for use in suicide prevention is a "recent but rapidly increasing phenomenon in suicide prevention" (Reifels et al., 2022, p.2) and has the potential to enact top-down, bottom-up strategies that provide universal, selected and targeted interventions across multiple contexts (Reifels et al., 2022). As previously noted, research on effective suicide prevention implementation strategies is scarce and requires attention as determining effectiveness can direct where best to intervene (Mann et al., 2005; Reifels et al., 2022; Rezaeian, 2021).

Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1979), as previously discussed, was one of the forefathers of implementation science, creating a socio-ecological approach to supporting complex systems. Stemming from implementation science, differing frameworks have been developed. The Cynefin Framework (Snowden and Boone, 2007) identifies systems as simple, complex, complicated and chaotic and suggests interventions based on the level of complexity. This framework held promise in considering a collaborative approach to suicide

prevention implementation as it identifies cause and effect but does not contain cross-collaborative or cultural components and focuses on a single leadership approach.

Fitzpatrick and Hooker (2017) discussed an interventional systems approach to suicide prevention in Australia called "Lifespan" based on international evidence that integrated, multifaceted and multilevel systems approaches, lower suicide rates (Lewitzka et al., 2019; Matsubayashi & Ueda, 2011; Rezaeian, 2021). Lifespan has individual components combining to achieve a greater effect than individually, using core elements evidenced as best practice activities (Black Dog Institute, 2022). The systems approach minimises duplication, ensures a range of services are available for those at risk and has capacity to establish local services/programs to address gaps but does not address wider social determinants (van der Feltz-Cornelis et al., 2011). The Lifespan programme identified the effective practices as; training general practitioners to recognise and treat suicidality and depression, improving access for people at risk and restricting access to means of suicide (van der Feltz-Cornelis et al., 2011). Later studies (Zalsman et al., 2016) found no single strategy was better than others and combinations of evidence-based strategies at both the individual and population levels needed to be assessed with robust research designs. Restricting access to means, school-based awareness programmes and the pharmacological effects of clozapine and lithium were effective, with possible effects seen in screening people in primary care, providing public education, ensuring media guidelines and the effect of internet helplines (Zalsman et al., 2016). The strategies are discussed separately however and the agencies responsible for their implementation are not discussed. A focus on the quality of interventions was absent as was the importance of the beliefs, values and assumptions of the stakeholders within the system which drives the willingness of stakeholders to change the system (Fitzpatrick & Hooker, 2017). Different contexts need to be considered in suicide prevention implementation to identify effective intervention options.

Differences in intensity of commitment, mechanisms of control and the extent of the formalisation of relationships and joint activities, denote inter-organisational relationships (Keast

and Mandell, 2014, as cited in Salignec et al., (2017). 'Cooperation' is deemed to be informal, 'coordination' is more formalised and 'collaboration' is seen as the most formal type of inter-organisational relationships. "Collaboration involves shared ideas and resources, reciprocity and, ideally, a long-term shared mission that transcends individual organisational interests" (Keast and Mandell, 2014, as cited in Salignec et al., (2017). Wicked problems are often described as seemingly intractable, long standing and complex, with no single solution. Three strategies to approach wicked problems are defined as authoritative, competitive and collaborative (Roberts, 2000, as cited in Gwynne and Cairnduff, 2017). A small number of people in power attempt to implement the authoritarian approach, differing organisations compete for resources to implement the competitive approach whereas collaboration approaches require stakeholder input to define the issues and possible solutions. A cross-collaborative approach therefore appears to be the best fit for suicide prevention implementation.

The United States Government Accountability Office (GAO) in recognising the need for improved collaboration across the federal government departments, defined collaboration as "any joint activity that is intended to produce more public value than could be produced when the agencies work alone" (US GAO, 2012, p.3). The GAO described the eight practices that assist in successful collaboration as…

1. defining and articulating a common outcome;

2. establishing mutually reinforcing or joint strategies;

3. identifying and addressing needs by leveraging resources;

4. agreeing on roles and responsibilities;

5. establishing compatible policies;

6. creating procedures and other means to operate across agency boundaries;

7. developing mechanisms to monitor evaluate and report on results;

8. reinforcing agency accountability for collaborative efforts through agency plans and

   reports and;

9. reinforcing individual accountability through performance management

    systems (US GAO, 2012, p.3).

The GAO cross-collaborative implementation framework provided steps to assist

agencies to work together towards a common goal, offering a structured approach with features

compatible with the WHO suicide prevention framework but was attuned to larger government

departments. After considering other models that might provide a cross-sectoral suicide

prevention approach, the Collective Impact model (Kania & Kramer, 2013) appeared to hold the

most compatible components to provide cross-sectoral suicide prevention implementation.

2.10   Collective Impact

The "Collective Impact" (CI) framework was formulated in 2011 by Kania & Kramer, (2013) to

address complex and wicked problems with no known solutions, problems that require multiple

stakeholders to address them and have unpredictable outcomes (Senge et al., 2015, as cited in

Smart, 2017). CI can be used as a tool, model or framework (Mayan et al., 2020) and advocates a

place-based approach directed at the local level. CI concentrates on the social and physical

environment with stakeholders collaborating across sectors to achieve social impact. Implementing

the five conditions of CI aims to lead to population-level change (Kania & Kramer, 2011, as cited in

Smart, 2017). The conditions are: the creation of a common agenda; continuous communication;

ensuring a "Backbone function" ie having dedicated staff with specific skills to coordinate

stakeholders; mutually reinforcing activities (identifying separate activities that are coordinated

through a plan of action) and finally the creation of a shared measurement system that uses data to

measure results across all participants (Senge et al., 2015, as cited in Smart, 2017). These conditions

incorporate the eight practices of successful collaboration cited in the GAO collaborative approach

(US GAO, 2012, p.3).

Three pre-conditions are essential when commencing a CI initiative to provide opportunity

and motivation (Hanleybrown, Kania & Kramer, 2012). These pre-conditions are: having an

influential champion who possesses dynamic leadership; adequate financial resources for the first

two or more years and; an urgency for change and ability to communicate this. Effectiveness is

enhanced by building on work already underway by organisations and by recognising that good work

can take time, often two or more years. Hanleybrown et al., (2012) discussed the importance of a

"Backbone Organisation" providing six essential functions: overall strategic direction; facilitating

dialogue between partners; managing data collection and analysis; handling communications;

coordinating community outreach and mobilising funding.

Another feature of CI is the ability of organisations to obtain new knowledge, learn lessons

and find solutions simultaneously, reducing adaptation time and enhancing implementation ability

(Hone et al., 2021; Kania & Kramer, 2013). Gwynne and Cairnduff (2017) commented that;

> "collective impact was more than collaboration, it provided a framework to bring
> multiple parties together to define the problem and its complexities and priority, and to jointly
> develop, implement and evaluate multifaceted solutions".

Since 2011, CI has attracted comment on possible enhancements. Kania et al., (2014)

thought CI partnerships could enhance implementation by including partners from government,

non-profit, corporate and philanthropic areas, by building strong trusting relationships and by

attributing success to all partners, not just one.

Criticism of a CI approach has focused on equity issues, arguing that high level leaders may

not be representative of the populations they seek to serve (McAfee et al., 2015, as cited in Smart,

2017; Mayan et al., 2020; Wolf, 2016). Kania & Kramer acknowledged that diversity and community

engagement required further development in 2015 (Kania & Kramer, 2015) and wrote in a 2016

blogpost;

> "As we and many others have written since the initial article was published, while
> the five conditions are important foundational elements of collaborative change, they do
> not, in and of themselves, provide a complete and comprehensive playbook for achieving
> collaborative, collective change at scale" (Kania & Kramer, 2016, para. 5).

Kania & Kramer developed six CI principles of practice alongside CI Forum partners that

addressed these gaps;

- Design and implement the initiative with a priority placed on equity
- Include community members in the collaborative
- Recruit and co-create with cross-sector partners

- Use data to continuously learn, adapt, and improve
- Cultivate leaders with unique system leadership skills
- Build a culture that fosters relationships, trust, and respect across participants
- Customize for local context (Collective Impact Forum, 2016).

Mayan et al., (2020) said in implementing CI approaches, partners had to be intentional about the diversity and quality of stakeholders, ensuring members with lived experience had access to participation. CI relies on trust and funding thus time and resources can be a barrier and messaging has to target the right audience in order to harness resources (Mayan et al., 2020).

Policy development and systems change is critiqued as being absent from CI conditions (Himmelman et al., 2017, as cited in Smart, 2017). This may not affect suicide prevention as suicide prevention committees have opportunities to feed into policy both locally and nationally, however influencing larger policy decisions such as raising the drinking age or taking alcohol out of supermarkets is challenging. The final criticisms are a possible lack of community engagement and public health prevention (Smart, 2017).

Ennis and Tofa (2019) undertook a thematic analysis of peer-reviewed research on nineteen collective impact projects and identified four themes that emerged. They concluded that the CI framework required contextual adaptation; relationships and trust amongst contributing agencies was critical; the framework could be complex and technical (data sharing could be complex but was important) and; that power and equity required attention as powerful individuals could end up making the decisions without input from the population they were intending to assist (Ennis and Tofa, 2019). Smart (2017) summarises the potential of CI, stating;

> To undertake a collective impact process that engages meaningfully with communities, prioritises equity and seeks policy and systemic change, requires a substantial shift in the way the service sector operates. However, it is only through incorporating these elements into the collective impact framework, that collective impact sites are likely to fulfil their potential for transformational, population-level change (Smart, 2017, pg.9)

In discussing the problem of attempting to "Close the Gap" in health disparities between European and Aboriginal Australians, Gwynne and Cairnduff (2017) noted;

> "Many solutions to wicked problems exist. They exist in research, communities, and in public policy, but the execution of the solutions and customisation of the response requires a

structured and shared process such as collective impact… Importantly, all parties have a part to play in designing, customising and implementing local sustainable solutions….Collective impact is a slow process, one of influencing and sharing resources and knowledge, one of trust and mutual accountability. Yet, when applied effectively, positive change can result." (Gwynne and Cairnduff, 2017, pg. 125).

The emergence of a CI approach was mentioned in the response of the Canterbury education sector to supporting children and youth affected by the Canterbury earthquakes, mosque attacks and COVID-19 (Hone et al., 2021). The constructive role that the components of CI provided in developing resilience in children and youth post-disaster were identified in three programs, Mana Ake, Sparklers and Grow Waitaha Communities of Practice (Hone et al., (2021). The CI approach in Mana Ake was used to address the "system complexity, communication challenges and multiple layers of key relationships and organisations" (Hone et al., 2021, p.237). Agencies progressed initiatives faster by learning from each other, leveraging local connections. The five conditions of Collective Impact were used intentionally in the design of the Grow Waitaha stakeholder alliance and Hone et al., (2021) argued that the outcomes in improving resilience and wellbeing provided evidence of a collective impact. All three programs were aimed at improving wellbeing at a universal level.

Frameworks encompassing the whole ecosystem potentially fit such a large and complex undertaking as suicide prevention and align with the WHO framework of applying universal, selected and targeted approaches, ensuring that agreed standards of care and an evidence base are implemented. Overlaid on these international and national frameworks are the contextual aspects of countries including differing cultures, population sizes, economic prosperity, adversity, historical effects of colonization and loss of culture, effects of war, natural disasters and the natural environment. Also crucial are access to resources, education and clear leadership in implementing suicide prevention activities.

In appraising suicide prevention frameworks in 2019, the WHO 2012 framework (WHO, 2012) and 2014 guide (WHO, 2014) were the only frameworks existing to implement cross-sectoral suicide prevention. Suicide Prevention Frameworks and associated Action Plans occur in many

countries but the application of those frameworks are often devolved to local health authorities to implement. Mandate is often unclear as to who should take the lead in implementation. Often this falls to the governing agencies for health and mental health and addictions, as suicide and self-harm are viewed as primarily health issues, ones that admittedly have underlying social determinant causations. In searching for examples of programmes where CI has been implemented and reviewed, there appeared to be no reference to CI being utilised directly in suicide prevention.

When assessing CI to identify if there were commonalities with the WHO Suicide Prevention Framework, 2012 (WHO, 2012) and Live Life Framework, 2021 (WHO, 2021) it was clear that most elements of the WHO Frameworks were contained in the CI approach but not all CI conditions were present in the WHO Frameworks. The WHO Frameworks did not explicitly outline the need for an influential champion who possesses dynamic leadership, or requirement for continuous communication and did not specify the requirement for a backbone organisation. Building on work already done and the backbone functions of the pre-conditions, such as coordinating outreach, were also missing. CI did not specifically mention the WHO component of achieving political commitment, although communicating an urgency for change could involve garnering political commitment. Table One provides an outline of the similarities and differences between the two WHO frameworks and the CI model.

Table One: CROSS-SECTORAL IMPLEMENTATION FRAMEWORK COMPONENTS		
Collective Impact Framework	**WHO Framework components 2012**	**WHO Live Life 2021**
BF – Backbone function		
Pre-conditions		
1. Influential champion who possesses dynamic leadership		
2. Adequate financial resources **BF** Mobilising Funding	3. Assess Resources	
3. Urgency for change and ability to communicate this	4. Achieve Political Commitment 6. Increase Awareness	1. Situation Analysis 3. Awareness Raising and Advocacy
4. Build on work already done	1. Identify Stakeholders 2. Undertake Situation Analysis	1. Situation Analysis

Conditions		
5. Creation of a common agenda	1. Identify Stakeholders 2. Undertake Situation Analysis	1. Situation Analysis
6. Continuous Communication **BF** Facilitating dialogue between partners **BF** Handling communications	5. Address Stigma	2. Multi-sectoral Collaboration 3. Awareness Raising and Advocacy 4. Capacity Building
7. Ensuring a Backbone function	3. Assess Resources	5. Financing
8. Mutually reinforcing activities (identifying separate activities that are coordinated through a plan of action) **BF** Overall strategic direction **BF** Coordinating community outreach	7. State Clear Objectives 8. Identify Risk and Protective Factors 9. Select Effective Intervention (Universal/Selected/ Targeted)	
9. Creation of a shared measurement system that uses data to measure results across all participants **BF** Managing data collection and analysis	11. Conduct Monitoring and Evaluation 10. Improve research	6. Surveillance, Monitoring and Evaluation

In seeking to examine an implementation approach to suicide prevention that incorporated a cross-sectoral approach, Collective Impact held promise, although the inclusion of cultural considerations and lived experience to the framework (Ennis & Tofa, 2019; Mayan et al., 2020) could potentially strengthen it further. In considering the design of this study, it seemed appropriate to investigate whether the components of both the CI and WHO models were present in the functioning of the CSPGC.

My next chapter outlines the research design for this study which seeks to examine the cross-collaborative implementation framework components of the 2012 and 2021 WHO models and the CI model, including questions on cultural context and lived experience, against the background of suicide prevention in Canterbury post- disaster. Given the socio-ecological impact of the disasters in Canterbury, the design will also afford a cross-collaborative insight into the wide scale adaption of a system seeking to build resilience after loss and trauma.

Chapter Three: Research Design

Undertaking research in cross-sectoral collaborative suicide prevention in a region that has dealt with three major disasters since 2011 is a niche undertaking. This chapter begins with the theory informing the research, a discussion about the role of the researcher and the reasons why I chose to undertake research on suicide prevention implementation. The chapter continues with an outline of the research aim, objectives and methodology. Participant recruitment, interview questions, data collection and analysis are then discussed. Ethical considerations are discussed as are the perceived limitations of the research, concluding the chapter.

3.1 Theory informing the Research

Suicide is a highly complex and challenging social issue. The theory informing this research is Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1979) as discussed in this study in section 2.1. Risk Factors for Suicide. Bronfenbrenners' socio-ecological framework portrays the complex interrelation and effects between a person and their environment. Ecological intervention to support people involves "changing how people interact with their environment or changing the environment" (Langer & Lietz, 2014, p.35). Ecological theory and systems theory are closely aligned and the principles that underpin the theories resonate with both social work and suicide prevention. These principles, as identified by Langer & Lietz (2014, p.35), are that "a system: consists of interrelated and interdependent parts; is defined by its boundaries and rules; demonstrates predictable patterns of behaviour; is more than the sum of its parts; changing one part of the system affects the other parts of and the whole system and; goodness of fit within the environment leads to positive growth and adaption".

Ecological Systems Theory has been adapted since 1979 in a variety of ways to understand socio-ecological effects within complex systems. In examining the effects of socio-ecological effects of COVID-19 on health and human service workers, Magruder et al., (2021) used an adapted socio-ecological framework that included health promotion. The framework considered broader social and environment contexts, considering five levels of influence being; intrapersonal; interpersonal ie

family friends, social network; institutional ie organisations with rules; community level regarding relationships between organisations and institutions and; public policy.

For this study I have utilised a socio-ecological approach to frame my research project. This was due to the multiple levels of influence that occur in implementing suicide prevention cross-sectorally. As suicide occurs across age groups, genders, cultures and communities in any socio-economic setting and has multiple risk factors that occur due to the socioeconomic and ecological environment that a person lives in, an ecological systems approach was the best fit for this study. Utilising a socio-ecological approach to this study allowed the level of complexity required to examine the socio-ecological impacts of the three disasters in Canterbury. Ecological Systems Theory also underpinned the formation of the Collective Impact model, the components of which formed the basis of the research design for this study. Social workers understand the importance of working with a person in context and thus this theory supports social work principles and practice.

3.2 Role of the Researcher

Suicide prevention is a vast subject area to research. Many researchers contribute to aspects of suicide prevention knowledge from wellbeing to intervention however much of the research focuses on risk factors and youth, with little qualitative research undertaken (Kolves et al., 2021). Considering regional and national strategies to drive suicide prevention activities is an undertaking reserved for a small cohort of health and social science academics and policy officers, informed by local and cultural knowledge (Lewistska et al., 2019; WHO, 2021). Sometimes health or mental health is the lead government agency driving the policy and leading a collaborative cross-sectoral group, sometimes it is a local council, area or indigenous community.

My professional journey as a social worker led me to become the Northern Territory State Suicide Prevention Coordinator in Australia in 2011. As social work encompasses a socio-ecological approach to wellbeing and social workers work across many different social service agencies, coordinating cross-sectoral suicide prevention is a good fit for a social work skill set. Part of my position involved writing a strategic suicide prevention action plan for the state. This involved

reading strategic plans and international research, considering programme effectiveness and local

and cultural needs of Northern Territory residents within that state, underpinned by data (NT

Department of Health, 2015). My office established a cross-sectoral government committee to

formulate a suicide prevention strategy and deliver actions to strengthen the population. Creating a

cross-government committee that would identify suicide prevention goals and work towards them

was challenging but rewarding and deaths from suicide reduced in that period (NT Department of

Health, 2015).

In returning to Aotearoa New Zealand in 2015, I found there was limited strategic suicide

prevention cross-sectoral collaboration occurring in Canterbury, despite the psychological impacts

from the disasters. As a resident when the earthquakes commenced, I experienced personally the

fear of living through multiple earthquakes and aftershocks and my family endured the stress of

living in a damaged property and dealing with insurance issues. Personally and professionally as a

social worker, I was aware that the impact of the disasters was affecting the whole socio-ecological

system and increasing stress at multiple points.

There was considerable conjecture from the media that the impact of the ongoing

aftershocks and secondary stressors would increase mental health distress, leading to an increase in

suicide attempts and deaths (Lewis, 2018). Overseas research suggested a decrease in suicides post-

disaster might initially occur followed by an increase after two years when frustration and

disillusionment set in (Emergency Management Australia, 1996, as cited in MOH, 2020). I was

concerned there was no cross-sectoral focus on suicide prevention but cognisant there was an

interagency psychosocial committee working to strengthen wellbeing and build resilience in the

population. Ethically, from a social work perspective, I felt compelled to boost suicide prevention in

Canterbury in order to protect the rights and promote the interests of clients, as per the Aotearoa

New Zealand Social Work Code of Ethics (Social Work Registration Board (2022).

In 2018, the CDHB facilitated the formation of a new Canterbury Suicide Prevention

Governance Committee (CSPGC), providing potential for suicide prevention inter-agency

collaboration and implementation that could be backed by an evidence-based approach. I was involved in the formation and development of the CSPGC and was able to utilise my social work and suicide prevention knowledge and experiences to assist with the process of establishing and maintaining the inter-agency group.

Having been involved in the development of cross-sectoral suicide prevention committees in both an Australian state and an Aotearoa New Zealand region, and having also written cross-sectoral suicide prevention action plans for both, the question of how to implement a whole of system suicide prevention approach was of personal interest to me. National and international suicide prevention strategies overwhelmingly cite the requirement of a cross-collaborative approach by government agencies (WHO, 2012), but there was little instruction on how to implement this approach to suicide prevention in 2018, when this research commenced.

As a member of the CSPGC I gained a unique insight into the effects of the earthquakes on the staff and service users of the differing agencies. I also gained further experience in the formation, challenges and strengths of cross-collaboration in suicide prevention. There was certainly research occurring on the likely psychological and economic impacts of the Canterbury earthquakes on individuals, families and populations. The impact of the disasters on Canterbury agencies had been researched with an emphasis on resourcing and the effect on staff wellbeing (van Heugten, 2014) but no-one appeared to discuss the impact on agencies from a cross-collaborative suicide prevention view. I was also interested in searching for implementation models that might enable the complex collaborative undertaking of suicide prevention. I had heard of Collective Impact (Hanleybrown et al., 2012) and was drawn to it as a model that held possibility. Literature searches were unable to identify how the model was being applied formally to suicide prevention and this intrigued me.

Having formed professional relationships with members of the CSPGC I realised there was potential to engage the members in a qualitative study that focused on the impact of the earthquakes and their experience of cross-collaborative suicide prevention.

This was a unique research opportunity but one that took advantage of my position as an insider researcher (Corbin Dwyer & Buckle, 2009) as someone who had been a participant in the impacts of the disasters and the formation and sustainability of the cross-sectoral CSPGC.

It is important to understand the context of the field and operation in which an insider researcher status operates (Chammas, 2020). My field was operating as a planner/funder within a district health board facilitating a cross-sectoral group. This field provided potential for a power imbalance (Mero-Jaffe, 2011) with two participants as they were working in an agency providing a service that was directly funded by my agency. I did not want these participants to feel obligated to be participants in the study because of this funding situation. This required an honest negotiation of power, one that was not premised on ethnocentrism; a belief that we were members of an important group (Merton, 1972, as cited in Greene, 2014) and therefore the power differential did not exist, or premised on an appeal from myself as a fellow advocate (Greene, 2014) seeking to increase obligation. I acknowledged this situation openly and continued to ascertain verbally pre and post interview that their participation was entirely voluntary and sat outside any professional obligation they might feel to contribute to the research. I was also aware participants can also hold power by controlling the information they provide or by omitting data, both of which can influence the study (Bhopal, 1995, as cited in Mero-Jaffe, 2011) and I worked with all participants to build trust by being transparent in my research design, aims and methods.

My research approach (Chammas, 2020) utilised skills and knowledge from my profession as a social worker and my policy background. The professional values of social work are reflected in the New Zealand Social Work Registration Board Code of Conduct (SWRB, 2021) and the Aotearoa New Zealand Association of Social Work *Code of Ethics* (2019) which require professionals to protect the rights and promote the interests of clients and act with integrity and honesty. By undertaking research that might provide increased prevention from suicide and self-harm I was motivated by the possibility of promoting the interest of clients and the agencies that work with the clients. I could not achieve this if I undertook research that was dishonest or lacked integrity because participants

were less likely to trust me or to participate and the research would be invalid. I maintained integrity though utilising academic supervision, ensuring ethical protocol was followed and by ensuring confidentiality of the participants by using numbers (P1 to P10) to identify them in the study.

Insider research that involves peers must include a declaration and acknowledgment of shared roles, that of colleague and researcher (McDermid et al., 2014). I self-disclosed that duality of roles through seeking agency approval and verbally reiterating the dual role at interview and in email correspondence with all participants. Participants acknowledged this duality and I maintained trust and demonstrated reflexivity throughout the study. Reflexivity is the ability to situate yourself socially and emotionally in relation to participants (Mauthner & Doucet, 2003, as cited in Greene, 2014) and maintain an awareness of your effect or bias on the research. I did not want my pre-existing relationship with participants to skew information they were providing by telling me what they thought I wanted to hear or by deliberately withholding certain material and so I encouraged participants to be honest and frank verbally prior to the interview. This required participant trust which was built through maintaining confidentiality and being overt about any perceived conflicts of role and by outlining the purpose of the study and how their data would be used. As many of the participants had undertaken post-graduate research themselves, they were possibly more aware and able to separate my role in a funding position from my role as a researcher.

As an insider researcher I had already established rapport with my participants and therefore was more likely to be accepted by them (Berger, 2013). This acceptance assisted with building trust which meant participants were more likely to provide in-depth data as they trusted the use of it (Berger, 2013). I think this study was an example of this trust and acceptance as the use of quotes testifies to the depth and openness of the conversations held during interviews.

One of the criticisms of being an insider researcher is that one may be too close to the participants or choose participants that reflect their gender or culture (Brannick & Coghlan, 2007) and I countered this by inviting all members of the CSPGC to participate. Support for insider research suggests an advantage, where the researcher is aware of the culture of the participants and share

common values and experiences (Oakley 1981, as cited in Saidin, 2016). This progresses the

interview process as engagement has already occurred and participant and researcher have a shared

understanding. Although I had known the participants for a length of time, I had not worked with

any of them as a colleague and the diversity of the participants from myself in age, gender, culture,

profession and experience (**Appendix F**) demonstrated the differences within the cohort. We did

however have a shared understanding of suicide prevention and similar values in wanting to reduce

distress in the community. I was therefore both an insider and an outsider researcher due to this

diversity of workplaces and cultures. I believed this positioning strengthened the study as the

participant data received contained a wide range of insights into workplace cultures and experiences

and was extensive. This countered the concern that an insider researcher may miss receiving data as

the participant assumes the researcher knows the information already (Berger, 2013). To minimise

this possibility I was careful to ask the interview questions only, then minimally prompt occasionally

in order to allow the participant to speak freely. I continually reflected on my positioning throughout

the interviews and in the data analysis to ensure the voice of the participants was foremost in order

to be genuine and authentic in my use of self, as outlined by Corbin Dwyer & Buckle, (2009, p.59)...

> *the core ingredient is not insider or outsider status but an ability to be open,*
> *authentic, honest, deeply interested in the experience of one's research participants, and*
> *committed to accurately and adequately representing their experience.*

I was aware that I also had a positive bias (Greenbank, 2003) towards the merits of a cross-

collaborative suicide prevention approach and that I needed to examine this bias by ensuring

participants felt comfortable to discuss both the strengths and limitations of participating in such a

committee in the participant interviews. As the human instrument (Denzin and Lincoln, 2005) by

which the data was gathered, it was important I was aware of my bias and work to provide a neutral

environment for the data gathering by being honest with participants, thereby seeking reciprocity.

I sought to gather information for the research from a wide range of differing sources

including looking at implementation models for cross-collaboration. After undertaking the literature

review it appeared Collective Impact might hold promise to be utilised as a suicide prevention

model. I was aware I had to be open to the potential for Collective Impact not to fit well as a model for suicide prevention and ensure I was not allowing bias to steer the delivery of the research interviews or the framing and writing up of the research findings. One of the pre-conditions of the Collective Impact approach is an urgency for change. In considering my research aims it seemed appropriate therefore to pose the question of whether participants of Canterbury agencies thought the impacts of the disasters on their populations had contributed to their perception that there was an increased risk of suicide necessitating the need for greater cross collaborative suicide prevention.

3.3 Research Aim, Objectives, Methodology

It was in this context that two main objectives for the research were conceived; firstly to examine the socio-ecological impact of the three disasters in Canterbury on cross-sectoral agencies and their service users, considering the implications of those impacts for suicide prevention and secondly; to identify and examine the components of cross-sectoral implementation that could combine to create a suicide prevention implementation model that was applicable at a local, regional and national level.

There was a rich number of data sources, as outlined in the literature review, that examined and potentially confirmed possible psychological effects of the disasters in Canterbury upon the population but no whole of system study of the experience of living and working in a city under considerable stress. There also appeared to be no research obtainable that provided insight into a member's experience of being involved in the implementation and functioning of a cross-sectoral suicide prevention committee in Aotearoa New Zealand.

In seeking to examine the participants' view of the impact of the disasters in Canterbury on their service agency and service users and of the efficacy of cross-agency collaboration in suicide it was important to determine the right methodology with which to conduct the research. Undertaking a qualitative approach to the research (Denzen & Lincoln, 2005) offered the potential to elicit and capture the personal experiences and insights of managers across a range of differing government and social agencies. Using an interpretive framework (Guest et al., 2014) allows a researcher to

interpret the meaning, both personal and social, that participants attach to their actions and was the right framework to capture the collection of personal experiences. Using applied thematic analysis enabled examination of key concepts from the data to further explore (Guest et al., 2014) and build theoretical models and find solutions to salient issues (Guest et al., 2014). This approach fitted with my motivation for examining the potential of the Collective Impact model as a model for cross-collaborative suicide prevention amongst other implementation models as it provided potential to build a new model, one that addressed gaps and could be used to address suicide as a salient issue. Applied Thematic Analysis (ATA) also provided a framework by which themes could be systematically identified from the data collected which was helpful when examining such a broad data set (Guest et al., 2014). Eliciting information by using a set of semi-structured questions assisted in structuring the research whilst also providing scope for more inductive probing when appropriate.

3.4 Participant Recruitment

Owing to the niche nature of the research, cross-sectoral participants with knowledge of the effects of three major disasters on Cantabrians and experience of working in suicide prevention were required. As an insider researcher (McDermid et al., 2014) I knew all of the participants who fitted this criteria. It was important therefore to gain permission from participating agencies that had representatives on the cross-sectoral CSPGC to provide transparency to the agencies and provide mandate and support for the participants. An information sheet for agencies outlining the research was sent to agencies by email, asking if they could nominate potential participants for the research, **Appendix A**. Agencies were informed by email that only participants who were knowledgeable in their agency's suicide prevention activities, who operate at an organisational management level and who had participated on the CSPGC, met the recruitment criteria owing to the questions relating to the establishment and operation of the CSPGC. Agencies identified participants for the study and the participants were sent an information sheet for participants, **Appendix B,** that outlined the study and requirements of the participant.

Ten current and former representatives of the CSPGC agreed to take part in the research from a variety of agencies; Oranga Tamariki, St John, Sport Canterbury, Canterbury District Health Board, Pegasus Health Ltd, Ministry of Education, Te Rūnanga o Ngāi Tahu and E Tu Pasifika. Candidates were sent a consent form, **Appendix C,** as were the agencies, **Appendix D**, to sign prior to the study commencing. Consenting participants were invited to attend a semi-structured interview, focusing on their experience of the impact of the Canterbury Earthquakes, Mosque Attacks and Coronavirus on their consumers and staff, current suicide prevention services and training, and their observations, experiences and views of working cross–collaboratively to prevent suicide in Canterbury. None of the agencies approached declined consent to participating in the research. Two additional participants were nominated to undertake the study but were unable to do so owing to work pressures.

A brief participant demographic questionnaire, **Appendix F,** was also sent to gather information on the participant cohort, contributing to the credibility of the study by showing the diversity and suitability of the participant cohort (Coast et al., 2009). The data received confirmed their depth of professional experience and expertise. Six participants were female and four were male. Two participants identified as Māori, one as Pasifika, two were European, one South African and four identified as European New Zealanders. One participant was under 40 years of age, two were aged between 41 and 50 years, five identified as being between 51 years and 60 years and two were over 60 years of age.

Participants were asked to record the number of years they had worked in their field of practice. Two participants recorded over 16 years work experience, three over 26 years, one over 31 years, two over 36 and two over 40 years. Six participants had post-graduate qualifications, three had graduate degrees and one had an undergraduate Diploma. Two participants had English as a second language. Although the cohort was small, the diversity and experience amongst the group was wide. Participants were informed that interviews would take approximately one hour and were given the choice of location that suited them best.

3.5 Interview Questions

The study commenced at the end of 2018. What was unforeseen was the attack by a lone gunman on Muslims attending two mosques in the city of Christchurch on 15 March, 2019. The loss of 51 lives and the psychological impacts of this event created further potential to distress the Canterbury population. By the time questions were being formulated to put to participants in the study in late 2019, a new threat had arrived, the COVID-19 pandemic. Given the timing of both events, it was opportunistic to widen the research to include questions on the socio-ecological impacts of the mosque attacks and the first six months of the COVID-19 pandemic as it affected Cantabrians in Aotearoa New Zealand. This widening brief was due to the possibility that the increased stress of these events might increase suicidal distress, increasing the urgency to provide activities that increased psychological resilience.

Semi-structured interview questions, **Appendix E**, were formulated to elicit information from the participants' perspective of the psychological and other impacts of the Canterbury earthquakes, March 2019 Mosque Attacks and Coronavirus pandemic on their service users and staff. This questioning was designed to understand if there had been a rise in the risk factors that increase the possibility of suicide. Participants were then asked to describe the suicide prevention needs, activities and training occurring in their agencies to obtain information on the status of suicide prevention activities and perceived need for services in Canterbury. Questions then explored participants' experience of the challenges, opportunities and outcomes of participating in a cross–collaborative suicide prevention committee to identify the components they saw as being effective for cross-sectoral collaborative suicide prevention. It was subsequently identified, post-literature search, the proposed questions covered many of the components of a Collective Impact implementation model (Hanleybrown et al., 2012). Two additional questions examining two components that had previously been identified as lacking in the Collective Impact model, namely the cultural voice and lived experience components (Ennis and Tofa, 2019) were added to explore

the perceived limitations of the Collective Impact model. This additional line of questioning provided the potential for these two specific components to be explored in interviews with participants.

The semi structured interview schedules were strongly informed by material sourced during the literature search. Thirty-one questions were asked using a semi-structured approach to interviewing, as per **Appendix E.** After completing the literature review, interview questions were grouped (refer to red headings as per **Appendix E)** to examine a fit with the Collective Impact framework. Early question formulation had followed the Collective Impact framework organically and it was opportunistic to use the components of the model to group the interview questions.

A pilot interview was conducted with a member of the CSPGC and feedback received supported the clarity of the questions as well as the timing and flow of the interview process. Pilot interviews are effective in refining the content of the interview and allow insight into the pacing of the questions; research problems and questions; gaps in information sought and areas where information does not fit the research question (Sampson, 2004). They can also illustrate issues with ethics and validity (Sampson, 2004) if they are found to be insensitive or coercive. The pilot interview response suggested that a small prompt should be included to elicit the methods by which communication might be provided to other agencies and the public on suicide prevention activities. The feedback from the pilot participant was that they enjoyed the experience of the interview, saying the experience gave them time to reflect on work that had occurred post-disasters. This feedback was replicated by the other participants in the study proper who expressed an interest in receiving a summary of findings from the research. Due to the quality of the pilot interview data gathered, the fact that the interview questions were not altered and that the pilot participant fit the criteria for participation, this interview was included in the study with the permission of the participant and their agency. Although this is not usual practice, where the same methodology has been applied and where the data strengthens the main findings or adds to a small sample size, inclusion is acceptable (Thabane et al., 2010).

3.6 Data Collection

Participants were sent an information sheet, **Appendix B**, several days prior to the beginning of the interview to consider whether they wished to be part of the research and given opportunity to ask any questions they had about the research process. Participants were asked to contribute up to one hour for the research interview, followed by time to vet the transcript of their interview and the final transcript of the research where their agency contribution was mentioned. Vetting transcripts ensures the participant can; appraise their data; correct or clarify language used; withdraw data they were uncomfortable in sharing and; include data they felt may be pertinent, assisting to build trust in the research process (Mero-Jaffe, 2011). Sharing the data with participants is also courteous and can provide direction that informs future service provision (Samson & Crockett 2000, as cited in Mero-Jaffe, 2011)

Participants were given a choice of venue to be interviewed and owing to the challenge of coronavirus, COVID-19, three participants were interviewed by zoom. Participants were informed that they did not have to respond to any questions that they did not feel comfortable answering. Participants were also told they could withdraw participation at any time up until the data analysis began, with a date for analysis being provided to them. Participants were also asked to sign an individual consent form (**Appendix C**) prior to interview.

Post-interview the transcript of the interview was sent to participants for checking and responding to ensure data fidelity and participant confidence and trust (Mero-Jaffe, 2011). One participant offered additional information at this time. All participants consented by email to the use of the transcripts.

Seven interviews were conducted face-to-face, audio-recorded on a mobile phone and subsequently stored in a secure file on the researcher's computer. All audio files were deleted off the phone once the audio files had been stored. The three interviews conducted by zoom, due to pandemic requirements, were also audio-recorded. Participants were informed that the audio

recordings would be stored in a secure location, as property of the researcher for a period of five

years and would not be used for any other purposes except for the research outlined.

The interview length ranged from 45 minutes to one and half hours long with most

interviews taking one hour. The longer interview was fatiguing for the interviewer and participant

and one hour appeared to be a comfortable amount of time to engage with the interview questions.

Some inductive probing occurred during the interview where interesting points raised were followed

up for further discussion and clarification. All participants opted to answer all the questions.

3.7 Data Analysis

The specific research questions underpinning this inquiry were designed to elicit data on the

impacts of the disasters on the cross-sectoral agencies and their service users, their suicide

prevention needs and activities and obtain data on the effectiveness of components of cross-

sectoral implementation that might combine to create a suicide prevention implementation model.

Therefore, the analysis plan was to compare participant data with available research on the impacts

of disasters on people living in Canterbury and consider the characteristics and components that

participants identified as contributing towards effective implementation of suicide prevention

activities. Only the participant text (data) was examined, the interviewer data was not included. The

quality of the data and transcribing was checked with participants to ensure correct interpretation

prior to analysis commencing.

An inductive thematic analysis approach (Guest et al., 2011) was used in coding the data. As

a pervasive topic, the potential to generate multiple codes was high and the amount of data

collected was extensive owing to ten participants answering 31 questions. Cluster analysis

(Aldenderfer & Blashfield, 1984; Anderberg, 1973, as cited in Guest, G., et al., 2012) was used to

cluster like observations owing to the complex nature of the data being obtained. The data was

coded manually and 75 initial codes were identified. From the prominent codes, three themes were

identified. The Impact of Disasters on the Canterbury Socio-ecological Environment was the first

theme, containing three sub-themes of; Psychological Impacts of Disasters on Cantabrians;

Socioeconomic Impacts and; Wellbeing and Resilience. The second theme was Suicide and Suicide

Prevention containing the two sub-themes of; Suicide and; Suicide Prevention. The final theme was

Suicide Prevention Implementation which did not contain a sub-theme.

A code table **(Appendix I)** was created to organize the relationships between the codes,

prominent codes and overall themes and to assist in the organisation and structure of the findings.

The overall relationship between themes and codes was interpreted and identified as part of the

inductive analytic process. Five sub-themes arose from examination of the prominent codes from

which three major themes were identified from the inductive coding of the data. The three

prominent themes were defined using a codebook to distinguish definitions and application. As the

findings were being written, there was constant consideration of the fit of the data within the sub-

themes and themes to ensure consistency and flow. An interpretivist element was used in the

findings to utilise the richness of the data. Differing participant insights and quotes have been used

extensively in the findings chapters due to their depth of meaning and impact.

The three distinct themes are discussed separately as three findings chapters. The third

findings chapter therefore reports on a mix of inductive (Suicide Prevention Implementation) and

deductive analysis, utilising the data from the interviews to examine whether the five conditions of

Collective Impact; common agenda, shared measurement, mutually reinforcing activities, continuous

communication and backbone support were present in the implementation and operation of the

Canterbury Suicide Prevention Governance Committee.

3.8 Trustworthiness

Demonstrating trustworthiness in the qualitative research being undertaken was imperative

in allowing potential for the findings to inform a new model or approach to suicide prevention

implementation. Trustworthiness was created by demonstrating credibility, transferability,

dependability and confirmability (Lincoln et al., 2011).

I had gained a measure of credibility as an insider researcher as I had built rapport with the

community (organisations with input into suicide prevention) already, held knowledge of suicide

prevention in Canterbury and had lived experience of the impacts of the disasters in Canterbury. I

sought academic credibility by outlining my research process, taking time to examine my role in the

interview process and throughout the framing of the data. I also ensured that participants were

informed and comfortable with the research process through giving them information and time to

consider their role in the study. Replicating this study is limited owing to the niche context of the

environment and the individual participants/agencies. By outlining the processes and methodology

including interview questions of the research inquiry in this chapter however, I sought to provide

some transferability. Dependability was demonstrated by the portrayal of my research design and

process and consideration of the limitations of the study. Confirmability of the research was aided

by the extensive use of quotations that gave an authenticity and voice to the participants.

3.9 Ethical Considerations

Ethical considerations associated with this research were outlined in the application to the

University of Canterbury Human Ethics Committee, **Appendix G,** which was approved on 2 March,

2020. It was important to ensure the psychological safety of the participants in conducting the

research as well as the consideration of any reputational risk to agencies in answers provided by the

participants (Corbin Dwyer & Buckle, 2009). Informed consent was sought from both the agencies

and the participants with upfront information on the requirements of research participation

provided to both. As the topic of suicide is sensitive and potentially could be impactful it was

important to ascertain participant's comfort with the research questions by discussing the questions

with the participants prior to the interviews commencing to provide a level of trust and openness.

The focus of the research was on the impacts of the disasters on Cantabrians and cross-sectoral

collaboration and was pitched at a strategic and service delivery level, therefore discussion of

individual cases of suicide did not form part of this research. Recounting the traumatic impacts of

living through three disasters in Canterbury could be stressful however, and participants were made

aware verbally of supports available to them should the interview process trigger any distress for

them. Participants were asked throughout and at the end of the interview if they were comfortable with the process and the data they were providing.

Owing to Māori CSPGC members participating in the research and the likelihood of consideration of Māori suicide in Canterbury, the research was vetted and approved by the Māori Research Advisory Group of the University of Canterbury Human Ethics Committee, **Appendix H,** on 27 August, 2019. Adherence to the principles of Te Tiriti o Waitangi[2], meant principles of partnership, participation and protection were required in the research (Hudson & Russell, 2008). I demonstrated these by seeking Māori participation in the study, working with participants to ensure I understood the te Reo[3] used in the study was correct, greeting them in te Reo and by protecting participants' use of cultural values and norms in data collection and analysis. I was mindful that as Māori experience higher rates of deaths from suicide than non-Māori, Māori participants may have experienced suicide in their wider whanau. It was important therefore to ascertain Māori participants' cultural safety in participating (Hudson & Russell, 2008). I repeatedly ascertained that participants were comfortable prior, during and after the interviews by checking their comfort levels verbally and by ensuring they knew they could stop the interview at any time.

The principles of beneficence and non-maleficence (Reid et al., 2018) were upheld by ensuring participants' welfare was maintained and participants were respected in the recruitment process by ensuring they were given the opportunity to both participate or not. Participants were fully informed about the research process. They were asked how they wished to conduct the interviews and the write-up and portrayal of their experience was considered as to cause no reputational harm to them or their agencies.

As all participants were known to the researcher, rapport was established prior to the interviews, enabling a high level of trust. This may have affected the research positively as participants appeared to be very honest and open about their experiences (Corbin Dwyer & Buckle,

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[2] the principle agreement between Māori and the New Zealand Crown,
[3] māori language

2009). This degree of openess did have potential for participants to become too comfortable, exposing them to the possibility of providing comment counter to their agency policy or comment affecting their professional reputations (Berger, 2013). Participants were therefore given the opportunity to vet the final content of the interviews and make changes and content was attributed to the participants' experience and not their agency, to provide professional beneficence (Reid et al., 2018).

The researcher transcribed the interviews manually and verbatim. Participants' personal and professional safety was protected in both the process of interviewing and in the attributable content (Corbin Dwyer & Buckle, 2009). This was achieved by having participants approve their verbatim transcripts, by ensuring confidentiality in the quotes and through safe storage of the information in a password protected site and by informing participants of where it would be held and how the data would be utilised.

The principles of beneficence and non-maleficence were upheld by ensuring participants' welfare was maintained and participants were respected in the recruitment process by ensuring they were given the opportunity to both participate or not. Participants were fully informed about the research process. They were asked how they wished to conduct the interviews and the write-up and portrayal of their experience was considered as to cause no reputational harm to them or their agencies. Participants were valued for their insights and the time they gave to conduct the interviews by being thanked at the end of the interviews and again when they returned their transcripts. All participants were treated equally and should participants have voiced concern or wanted to withdraw from taking part, they were informed and understood this was an option.

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3.10 Limitations

Some limitations were identified in the study. In formulating the questions, asking specifically for the participants view on the positive impacts of living through three disasters would have ensured a strengths perspective that may have yielded more expansive and nuanced information on adaptation and resilience.

The study cohort could have been increased by including more members of the CSPGC. Including a youth, LGBTI (Lesbian, Gay, Bisexual, Transgender, Intersex), Police, Corrections and rural perspectives may have provided richer context but were beyond the scope of what was possible within this Masters' project.

The data considered came from the questions posed. As there were 31 interview questions, the ability to undertake inductive probing was limited due to the length of time each interview took which may have reduced the depth of response. The ability to replicate the findings in this study are limited by the uniqueness of the setting and context, the cultural background of participants, and the specific nature of the disasters themselves. The capacity to interview participants who are part of a cross-sectoral suicide prevention committee is entirely possible however, as is the ability to examine the Collective Impact framework components against implementation of suicide prevention activities. It is also possible to interview other members of cross-sectoral committees in Canterbury to understand their experience of the impact of the disasters on their agency staff and service users and thus compare findings of this study.

3.11 Conclusion

In late 2018, I commenced this study with the research aim of firstly identifying the socio-ecological impacts of the Canterbury disasters on cross-sectoral agencies and their service users, considering the implications of those impacts for suicide prevention and secondly to identify the effective components of cross-sectoral suicide prevention implementation that might contribute to a strengthened model for suicide prevention implementation. To achieve this aim, the right

methodology and research cohort were required. I decided to use a qualitative methodology that

would allow the voice of the participants to come to the fore. I used qualitative applied thematic

analysis to organise and analyse the findings as it provided the right framework for this complex

undertaking. I considered my role as an insider researcher and outlined my methods for participant

recruitment, formulating interview questions, data collection and analysis. These processes

informed my ethical approach to the study, providing transparency and credibility to the participants

which enhanced the trustworthiness of the study. Finally, the imitations of the study have been

identified.

Having applied thematic analysis of the data, three themes were identified; the socio-

ecological impacts of the disasters in Canterbury, suicide and suicide prevention, and finally, suicide

prevention implementation. The next Chapter examines the first theme of the findings, the socio-

ecological impacts of the disasters in Canterbury.

Chapter Four: Impact of Disasters on the Canterbury Socio-ecological Environment

This chapter captures the information provided by participants on the socio-ecological impacts of the disasters affecting Canterbury from 2010. To understand the socio-ecological impacts and efforts to strengthen a stressed population, cross-sectoral participants were asked about the effects of the earthquakes, mosque attacks and COVID-19 pandemic on their staff and clients. Prominent themes that emerged highlighted the fear, anxiety and trauma experienced by people living in Canterbury; the effects of secondary stressors, losses and displacement on individuals and communities and; the experience of isolation caused by the COVID-19 lockdowns and the socioeconomic impacts of these disasters on the Canterbury population. Traumatic growth (Hone et al., 2021) was also identified, bringing enhanced wellbeing and acquired resilience stemming from the adjustment and innovation that living through disasters required and; increased community connection and collaboration for individuals and communities.

These findings illustrated both the negative and positive impact of the disasters on the staff and services users of the cross-sectoral suicide prevention agencies at all levels of the Canterbury socio-ecological system.

4.1 Fear, Anxiety and Trauma

I don't' know what Canterbury or Christchurch has done wrong but it's almost like we get past one kind of crisis and another one comes along and slaps us in the face and says here we go again (Participant 5).

All participants described the fear, anxiety and trauma they experienced and observed amongst their staff and service users of living through the three major events in Canterbury (Ardagh et al., 2018; Hone et al., 2021) and those findings are presented in this section. The definitions of these terms provide some insight into the experience of Cantabrians. Fear is described as a basic intense emotion aroused by the detection of imminent threat, involving an immediate alarm reaction that mobilises the organism by triggering a set of physiological changes (American

Psychological Association (APA), 2020). The changes are physically manifested when the amygdala, a cluster of almond-shaped cells located near the base of the brain (Holland, 2021; Roozendaal et al., 2009) alerts the nervous system, initiating a fear response and releasing stress hormones such as cortisol and adrenaline (Ardagh et al., 2018).

Anxiety is described as a feeling of nervousness, unease or worry about something with an uncertain outcome that typically appears in the absence of an imminent threat and differs from fear which is the body's natural response to immediate danger (Konkel, 2021). Anxiety can manifest into an anxiety disorder over time and the five major types of anxiety disorders according to the DSM-5 are Generalised Anxiety Disorder, Obsessive Compulsive Disorder, Panic Disorder, Social Anxiety Disorder and Post-Traumatic Stress Disorder (American Psychiatric Association, 2013).

Trauma is the Greek word for wound, originally describing a physical injury, however since 1894 (Etymonline, 2021) trauma has been used to describe a distressing or disturbing experience, emotional shock or physical injury. The DSM-5 defines trauma as actual or threatened death, serious injury or sexual violence (American Psychiatric Association (2013). There are three types of trauma; acute trauma resulting from a single incident, chronic trauma caused by prolonged and repeated events and complex trauma which is exposure to multiple traumatic personal events, often of an invasive personal nature (Allarakha, 2021)

The first two disaster events in Canterbury from 2010 were not foreseen, they caused danger, pain, harm and death, threatening individuals' sense of safety and causing anxiety about when the next earthquake/attack would occur (Ardagh et al., 2018; Hone et al., 2021). Similarly, the COVID-19 pandemic continues to cause anxiety due to the uncertainty regarding the outcomes on people's health and the economy (Devitt, 2020). For some people these experiences caused immediate or cumulative trauma (Beaglehole et al., 2017; Bell et al., 2017).

4.1.a Increased Fear, Anxiety and Trauma

All participants in the study reported an increase in fear, anxiety and trauma due to the earthquakes for both their staff…

> *We had staff like any other workplaces who lost their homes and/or had loved ones or knew people who died as a result of this tragic event. We also had staff who felt anxious returning to work after the event or who had children being scared (Participant 2)…*

and their clients…

> *The kids from one of the schools, were at QE2 and the quake happened and all went dark and the pool emptied. All the water came out of the pool. So, yeah it was quite traumatic on the day (Participant 8).*

Three participants noted that if people were already vulnerable the thousands of

earthquakes exacerbated their trauma…

> *Certainly we saw re-triggering of previous trauma in people, not necessarily similar types of trauma, but people who had pre-existing vulnerabilities presented quite early on being re-triggered by the events (Participant 6).*

Confirming the findings of Brown (2019), all participants said that fear and anxiety caused by the

earthquakes resurfaced in Christchurch during the mosque attacks on 15 March, 2019…

> *Every subset of population will have experienced some kind of impact at the time that has then potentially followed them through to now. And, when subsequent events come along, that maybe remind people of the feelings of powerlessness, hopelessness, or fear, such as the shootings last year, it can be really hard for people across the age bands as they re-experience those feelings again (Participant 1).*

The impact of this event was not only experienced by people in Canterbury but felt

nationally and world-wide. Participants noted the traumatising effects of people accidentally

watching the livestream video, posted by the perpetrator online, of the mosque attacks, as discussed

by Hone et al., (2021) and Kerdemelidis & Reid, (2019). Participants said the experience of being in

lockdown was new and frightening for students and staff…

> *Armed Offenders Squad coming.. which resulted in everybody being locked down in the hall in the gym, lying on the floor for apparently three hours, while SAS soldiers were around and helicopters were hovering overhead (Participant 8).*

School students and staff were further affected owing to their proximity to the mosque shootings

and participants spoke of the impact on schools with a higher cohort of Muslim students who were

directly or indirectly impacted by the injuries and deaths inflicted on Muslims attending the mosque

that day. They also mentioned the triggering impact of hearing helicopters hovering over the city

again as this had occurred post-earthquake too, as mentioned by Gorman (2019).

The Mosque Attacks created a new fear of terrorism and extremism, one that Cantabrians

had not experienced before, according to three participants…

Christchurch was never naïve but it was certainly brought into a new threat and the reality that the worst things in the world that can happen, can happen here (Participant 7).

This new fear was not uniquely experienced by Cantabrians, as evidenced by the 75,000 calls

to the national mental health helpline, "1737", from people throughout Aotearoa New Zealand in

the following six months, relating to distress caused by the attacks, (CDHB 2019). The targeted and

intentional nature of the mosque attacks, as opposed to a natural disaster, created disbelief, anxiety

and also a sadness felt keenly by the Canterbury population…

so it impacts, it's like the earthquakes, it affects everyone and it affects everyone differently and it affects some people a lot more than others, and some people will never be the same again (Participant 5).

One participant voiced concern about the existential impact of this sadness on general wellbeing…

My fear, was that people that already felt that this was a very sad world because of the earthquakes, global warming, all those things, that this was just another thing that made this a very sad world and maybe a world that people didn't want to be in (Participant 7).

4.1.b Vicarious Trauma

Vicarious, or secondary, trauma (OVC, 2021) is a term that describes the psychological

impact that can emerge from the direct or indirect exposure to the trauma of others. This can

emerge in people who witness, help or attend trauma victims (often first responders, health staff

etc) and can also be experienced as a cumulative build-up of exposure over time. From the rapid

literature review commissioned by the CDHB to identify the likely effects of the mosque attacks on

people with a high level of exposure to the event, modelling suggested up to 270 people might

develop PTSD or depression twelve months after the event as well as up to 44 emergency personnel

and first responders (Kerdemelidis & Reid, 2019, p.19).

Participants acknowledged the vicarious trauma that occurred amongst staff assisting the

victims and their families who were injured or killed during the deadly earthquake on February 22,

2011. The psychological impact of the mosque attacks on frontline staff and responders was voiced

by four participants as being particularly profound due to the intentional nature of the act…

> *they were exposed to some real pain and some fear and, I guess, vicarious or secondary trauma of walking alongside some people who had suffered grievous loss (Participant 1).*

There was a continuing need to support the wellbeing of frontline staff who assisted families

during and after the mosque attacks (Kerdemelidis & Reid, 2019) and participants said this was

important due to the cumulative nature of events in Canterbury, with the number of deaths and

injuries in the mosque attacks reminding staff of the earthquakes. Support for the families of the

bereaved and injured was also imperative and during participant interviews, the trial of the man

accused of the mosque attacks was pending. A focus for a number of agencies participating in the

research was on supporting the many families who would either provide or hear victim impact

statements…

> *There is all the work for the bereaved and the injured, and for their close families... There is all the wellbeing for the staff of the CDHB, staff who were frontline and other agencies who had frontline staff in that space. It was not something that we were prepared for so that continues to have its impact (Participant 5).*

Survivor guilt can occur when a person survives a traumatic event, evoking both grief for

those who did not survive and relief at surviving (American Psychological Association, 2021). One

participant mentioned Muslim staff voicing feelings of survivor guilt and also relief as they were not

present at the mosque at the time of the attack. There was also impact for Māori, due to the racist

ideology voiced by the perpetrator of the mosque attacks…

> *There was a real resonance with that community, … around what is occurring within general society that we can have such a vehement form of racism that flourishes and an underlying racist ideology that isn't just in that community (Participant 10).*

There was also connection identified between Muslim and Māori cultures…

> *For them was significant because going home to the homeland is also a concept that is very strong for them and for us, it was about acknowledging their cultural rituals and rights and how significant that is (Participant 10).*

For a population dealing with guilt, fear and anxiety, many turned to using alcohol and drugs as a coping mechanism (CPH, 2016). This increase in alcohol consumption and hazardous drinking was observed in service users by participants.

4.1.c Cumulative Psychological Impact of the Disasters

Cantabrians were still recovering from both the earthquakes and the mosque attacks when the Coronavirus (COVID-19) pandemic emerged in late 2019. Participants were asked to comment on the psychological effects of the pandemic on an already traumatised population…

> *…in terms of psychosocial wellbeing we understand that people, for them to be well, will need to have a sense of safety, a sense of agency, a sense of calm, connection and of hope. All those things are really challenged by any of those emergencies that we have been talking about but particularly by coronavirus ….because there is nowhere you can go that isn't affected. I mean after the earthquakes you could go to another part of New Zealand that wasn't affected but now we can't (Participant 1).*

Participants identified increased anxiety as one of the potential psychological impacts of the COVID-19 pandemic, related to uncertainty of the outcome. Participants said community staff travelling to people's homes were anxious due to the physical threat posed by the virus. At the time of the interviews the delta variant had not emerged and participants in Canterbury had only experienced one four-week lockdown.

One theme that emerged strongly amongst all participants relating to emotional impact was the ongoing and cumulative psychological impact of each of the disasters. Living through, and surviving, thousands of earthquakes created a base level of traumatic and chronic stress that was ever present for some people…

> *So the crisis of getting through every day, surviving every day, literally surviving every day in the wake of ongoing earthquakes was kind of more on people's minds during the first part, but then it was the long term effects of that, was really the worry (Participant 7).*

Although the disasters had also brought an increased connection, the uncertain outcome of the COVID-19 pandemic also created a cumulative anxiety in the population…

> *All of these things are two sides of the coin, one is it puts everybody into something together and two, it creates uncertainty (Participant 7).*

Dealing with the residual impact of that stress and having two more significant events occur in the region led to participants describing the psychological impacts as "*profound, ongoing and long-term*". For some, recovery was challenging against the backdrop of the many other challenges that life brings and participants spoke of Cantabrians having "multiple periods of recovery" and of the frustration of people living outside Canterbury not understanding the time it takes to recover psychologically...

> *Some people have been through multiple periods of recovery. Think of all the standard life traumas that happen alongside the overlay of natural disasters and the shootings (Participant 1).*

For Pasifika, psychological effects noticeably began to affect women five years later…

> *Other people may be going through a lot of distress, emotional distress, mental distress, however for us life carries on and we just carry on with each day until we can't carry it anymore and that's when we begin to see the mental health issues rise, like five years down the road (Participant 9).*

This effect was also mentioned by a participant who observed an increase in women in their fifties presenting with quite significant depression, including psychotic depression, for the first time some five to seven years after the earthquakes. This occurrence was seemingly exacerbated by another disaster, fires on the Port Hills above Christchurch in 2017 that burned for three days, destroying nine homes and resulting in the death of a helicopter pilot. The participant said some women had held their earthquake related fears in check for the sake of their children and when the fires occurred they felt threatened again and it was overwhelming.

The ongoing psychological effects of the earthquakes and subsequent mosque attacks were described by participants as significant for children, even for children in-utero at the time of the earthquakes and for youth. Participants spoke of the research (Liberty, et al., 2016) undertaken that confirmed the ongoing effects on school-aged children and youth caused by the earthquakes, noting the effects on differing ages…

> *Different developmental times then creates some kind of follow on effect for some children and some families, depending on what the initial personality of the child, the parental family response, and the level of ongoing impact (both the shaking and the damage) had (Participant 1).*

Parental response in dealing with the disasters had, and continues to have, an effect on the psychological recovery of children and youth and their ability to adapt and recover quickly (Hone et al., 2021). The impact of social media in perpetuating fear was also discussed in the context of the pandemic…

> *Those with existing anxiety and trauma …are likely to be highly anxious. And as with the earthquakes and shootings tamariki[4] and rangatahi[5] are impacted by the adults' behaviour around them and anxious adults create worries in children. Also access to social media and other media platforms would have had an impact on children's mental health and further increased fears (Participant 2).*

The ongoing psychological effects on students were very evident in school settings and participants spoke of the impact of this on school teachers who were noticing the rise in students exhibiting challenging behaviour due to trauma…

> *So for them [teachers] a number of them have described both the personal impact of the shootings, the mosque attacks and the ongoing effect on their schools, the student body, other staff. And for some of them, they will reference back, they will have a kind of like a trail back to ongoing impacts of the earthquakes (Participant 1).*

As with parental response, teachers' responses to dealing with earthquakes, the mosque attacks and now the pandemic whilst at school, impacts their students' ability to cope positively in difficult times (Hone et al., 2021). The pressure on staff to continue working in the midst of disaster was discussed by five participants from differing agencies who spoke of the conflict that staff felt between their professional obligations and their personal and family needs. Being concerned about the safety of their own children and parents whilst working in a role that required leadership and carried responsibility, added an extra burden of stress for some. For Pasifika there was added pressure due to cultural expectations…

> *…the difficulty is that being Pacific…we do everything as a collective…which makes it even harder for health workers because we don't get to become non-Pacific at 5.00pm. We go home and we're still Pacific… We can't take that off, we're working 24/7 (Participant 9).*

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[4] children
[5] youth

In times of disaster, frontline staff are called upon to work longer hours, go beyond their scope and deliver more than is normally asked of them (van Heugten, 2014). To end up doing this continually due to the number of big disasters occurring consecutively produced a fatigue among staff that gave some little time to recover…

> People have shown remarkable capacity to care and love, and to be tired, and then they get the latest round of adaption again through COVID, and, wow, my goodness (Participant 1).

The arrival of the COVID-19 pandemic put additional pressure on many of the already tired staff who had worked through adversity in the preceding years. Public health staff commented on the intense professional and political pressure they were feeling in undertaking contact tracing for COVID-19…

> As a workplace, we've been in response mode since early January, so that's a long time. We weren't front line, everyone was frontline for the earthquake, we weren't frontline for the Mosque shooting although you know we were in lockdown and our kids were in lockdown and that kind of thing. But this is really, our workforce, really frontline, we are the contact tracers, we are required, so we are under tremendous professional and political pressure as a workplace (Participant 4).

4.1.d Media Impact

The constant commentary by the media on the increase in people seeking help for mental health and addictions and the inability of the health system to meet demand, was raised by participants. Being repeatedly exposed to media comment had the potential to deter people from seeking help and participants said this was demoralising for staff doing their best to meet increased demand. Participants said this media-generated discourse created anxiety and expressed concern about the mis-information that was being spread especially regarding false reports about an increase in suicides…

> At the same time there were lots of false reports about suicides, so there was a high degree of anxiety and misinformation… And that is a wider issue, how this topic is addressed in the media. I think that creates a further risk factor because it can appear that the numbers are bigger than they are, or the rates are bigger than they are. It can appear that nobody's doing anything unless people actually have a willingness to look underneath, and to kind of hold the presentation of the media in suspension, and to critique it rather than accept it as fact (Participant 1).

Participants warned of the vicarious effects (OVC, 2021) on the population of constantly

watching disaster coverage in the media. Re-living traumatic experiences again and again is

traumatic in itself and participants emphasised the need to provide communications to the wider

public on self-care that encouraged people to be sensible about the amount of time they spent

watching disaster coverage, particularly relating to the mosque attacks…

> *The type of comms (communications) that we need to put out about being sensible about media use, not bingeing on media about this, knowing that the impact statements from the victims are going to be horrendous (Participant 5).*

Participants reported that anniversaries of the disaster events and situations, such as media

coverage of the victims reading their impact statements in court to the man accused of the mosque

attacks, had the potential to further traumatise people and hold them in their worst moments rather

than aid recovery.

The potential for social media to create fear in people with an addiction to media feeds was

also mentioned with regard to the COVID-19 pandemic. Constant media reporting and speculating

on the possible, but unknown, consequences of the pandemic resonated with the alarm also raised

by the media over climate change outcomes, contributing to a feeling of concern about the future…

> *Some people carry a degree of global alarm, particularly those who have become addicted to media feeds. And then, if you line some of those things up in terms of social, economic existential impacts, it can feed hopelessness and fear amongst people (Participant 1).*

4.1.e Physical Impacts

Participants emphasised the psychological impacts of the disasters on Cantabrians as

opposed to the physical effects of the disasters. One participant mentioned the dust from

liquefaction caused by the earthquakes creating difficulties for some, but only two participants

mentioned the physical injuries that occurred during the earthquake on 22 February, 2011, despite

6600 people sustaining injuries at the time (Ardagh et al., 2018). This suggested the physical impacts

of the earthquakes were less prolonged for most than the psychological. Injuries sustained by those

involved in the mosque attacks were mentioned by participants in the context of the effect on staff dealing with the wounded.

4.2 Secondary Stressors, Loss and Displacement

Secondary stressors include disruption to daily life, financial loss, unemployment and loss of environment including ones' home (Lock et al., 2012). Greater Christchurch was substantially destroyed in the February 2011 earthquake, including businesses, churches and sports arenas. All participants raised settling insurance claims as being a major and ongoing cause of secondary stressors for Cantabrians…

> *So those in many ways took a bigger impact on the population than the earthquakes themselves, or at least as big and lasted a lot longer and continue still. I mean there are still people who have not settled their insurance claims satisfactorily (Participant 5).*

The disparity in earthquake claim settlement outcomes was identified by participants as a major cause of stress. The length of time it took to resolve claims varied as did the outcomes, which were uncertain. Some people appeared to gain from the process of having their claim settled whilst others took a very long time, only to receive a lot less than they anticipated. Participants spoke of the stress homeowners incurred in this process, witnessing this in both their staff and service users. Sustained stress caused by the disparity of both the process and the outcome was a major concern;

> *the biggest risk is five years down-stream when half the people have new houses with new roofs and half don't. That those disparities cause stress and stress causes mental fatigue and fatigue causes illness and that causes suicides (Participant 7).*

The widespread earthquake damage to buildings resulted in significant relocation and displacement for the people of Christchurch, affecting their homes, schools and workplaces. Participants spoke of the adjustments staff and service users had to make, including multiple relocations, working without a building, hot-desking, working in shifts and providing services innovatively in order to continue working. Some businesses were destroyed and never recovered resulting in unemployment for staff…

For some families, that was severe and involved multiple relocations across periods of time and incredible stress for families dealing with lost employment or problems with insurance companies (Participant 1).

Post September 2010, moving around the city was difficult and slow due to the fractured roads and one participant said some staff initially took to bicycles to reach service users. Businesses moved out of the city due to damaged premises, affecting staff who had to travel further to get to work (Ardagh et al., 2018). For lower income families or beneficiaries, already living in cheaper accommodation more likely to be affected by damage, or who were uninsured at the time of the earthquakes, scarce accommodation meant an increase in rent they could ill afford according to participants…

So you think about certain communities where if we were looking at sociodemographic information alone, you would still be more likely to find those who are earning less, potentially who are on generational beneficiaries of some manner and who are more likely to have higher household numbers living within a household, a lot of displacement in those communities (Participant 10).

Community displacement included the loss of complete communities, particularly on the east side of Christchurch, as areas were "red-zoned" never to be built on again and as people found accommodation throughout the city…

We've seen a significant shift from the east into the wider communities that don't seem that far away but is actually a really defined border for those communities. They are really clear about where their boundaries are, which is interesting. And I guess it's about that identity location, you know which is actually about community and how you define it (Participant 10).

Community displacement was augmented by the loss of many sporting facilities as well as sports clubs losing players to other clubs across town or to other regions. One participant noted there was a lack of "life opportunities" for athletes who had no facilities. The more obvious and controversial displacements centred on the destruction of schools in Christchurch, including the Ministry of Education's decision to either close or amalgamate 40 primary schools damaged by the earthquakes. Some secondary schools are still in temporary locations 11 years later. Participants voiced that this affected community cohesion and resilience negatively…

Some of our schools were destroyed entirely so we had no school, no physical school buildings available, and ditto early childhood centres. So it was hugely disruptive for a number of years (Participant 8).

4.3 Isolation – COVID-19

The arrival of the COVID-19 pandemic into Aotearoa New Zealand, created new stress for disaster-weary Cantabrians. The pandemic lockdowns, limiting numbers in a household, preventing physical contact between households and limiting movement outside the home, cut across the previous psychological coping mechanisms of connection and gathering together to support one another, creating a sense of isolation for many. Isolation can increase rates of depression, anxiety, affect sleep quality and negatively affect the immune system (Pietrabissa & Simpson, 2020). Participants spoke of the effects of isolation during pandemic lockdowns on the wellbeing of their service users and staff, noting that where families were already isolated or vulnerable, lockdown conditions intensified those factors. Participants were concerned these factors might increase suicidality…

Clearly the pandemic has added intense emotional and mental stress to people. The emotional and psychological impacts of the pandemic can further lead to feelings of hopelessness and thoughts of suicide (Participant 2).

Access arrangements for children in care were cancelled and for children living in unsafe homes, being unable to attend school where they may feel safe and happy was noted by one participant as hugely disruptive. The effect of pandemic lockdowns on staff continuing to work were mixed. Participants said it was difficult to engage at a community level with service users and where they were working in areas of high stress, not being able to be there to support each other was difficult…

For some people that added layer of isolation and physical isolation from people, isolation for some practitioners …some people have found it invigorating, other people have found it incredibly frustrating professionally and personally not to be able to deliver service (Participant 1).

Some staff members living alone were keen to get back into the office with colleagues and some struggled to work from home. However, participants acknowledged that for a number of staff, working from home was less stressful, reducing travel time and allowing more time with family and

pets. Participants said not being able to attend church services disrupted the normal means of close-knit support for Pasifika, blocking them from being with extended family and that for Māori, being unable to attend tangi (funerals) was a loss keenly felt.

4.4 Socio-economic Impacts

The economic losses caused by the Canterbury earthquakes have been estimated at $40 billion dollars (ICNZ, 2021) and over 650,000 insurance claims were lodged, the majority of which were residential (ICNZ, 2021). Finding accommodation in a city with damaged and reduced housing stock increased the price of renting and participants said this placed increasing pressure on tenants...

> *The cost of unavailability of affordable rental accommodation has led to overcrowding and an increase in poverty-related illnesses in children. This also led to an increase in family violence related incidents (Participant 2).*

The earthquakes damaged homes in lower socioeconomic areas and participants observed the socioeconomic impacts of the earthquakes disadvantaging those with fewer resources to start with…

> *If there was already pre-existing vulnerability, then it was enhanced (Participant 10).*

The potential effects of the COVID-19 pandemic on employment and job losses was a concern for most participants…

> *Housing stress is huge for some families and if a parent loses their job and they are under housing stress or if they don't have a job in the first place and they are likely to lose their house, that will affect the kids and some kids just battle on brilliantly but others take stuff on board (Participant 8).*

When the first pandemic lockdown occurred in March 2020, Māori and Pasifika agencies saw increased need in their communities owing to job losses from businesses retrenching or casual work ceasing. Participants said their agencies responded with practical support…

> *That's where we noticed all the loss of work, so just worries around that and food, power, rent, all these bills, so these were all the issues that came up. So we did a welfare programme where we helped families with their needs, around food, power, firewood, under the whanau ora programme as well (Participant 9).*

One participant noted the added stress of having relations overseas requiring

financial support due to job losses in the Pacific Islands. Needing to provide financial support to others or securing income for themselves and their families had a noticeable effect on people participating in team sports. Team members and individuals began working on weekends and after hours to secure income which affected wellbeing, fitness and connection…

> *Because of the impact we've seen socially and economically, people started to work to bring money in so… player numbers dropped because the people couldn't play on a Saturday because they had to pick up a shift to bring in their income (Participant 3).*

Three participants voiced concern over the future socioeconomic impact of the COVID-19 pandemic causing increasing unemployment, consistent with MOH (2020), citing difficulties for youth attempting to gain entry-level employment, problems for people facing first time unemployment and the effect on a region that was still recovering…

> *We will probably see the impact, you know we have had a bunch of disasters now and people are worried and there's a whole lot of people who have lost their jobs now and never ever had to deal with any of that in their lives, so I think it is a very risky period (Participant 2).*

The pandemic lockdown also created a pressing need for education to address economic disparity for school students in homes without access to the internet or to devices…

> *There still is the risk that it extends the gap between the haves and the have nots in our society, so that's why the Ministry tried really hard to buy devices and modems for families (Participant 8).*

The effect of socioeconomic difference on wellbeing was voiced by one participant who referred to findings in the Canterbury Wellbeing Index, (CPH, 2019) the tool used to monitor wellbeing post-earthquakes…

> *We know quite a lot about who is well, in greater Christchurch and we know that earning $100,000.00 and not being physically disabled is really good for your health. But being poor and having a physical or mental disability is really bad for your health and for your wellbeing (Participant 5).*

Economic inequity caused by colonialism and racism was mentioned by one participant as important in challenging the ability to recover from the economic impacts of the disasters…

> *We need to unpick the racism and the colonialism and work our way through to re-imagining a new way of being …including unpicking the horrors of an economic system... which just created inequity (Participant 5).*

People living in Canterbury have been affected socio-economically by the three major disasters in differing ways at differing times. These challenges continue as people battle to settle home insurance claims for the earthquakes, people suffering injuries or who lost loved ones in the Mosque attacks who were the income earners struggle to live on reduced incomes and COVID-19 closes businesses and reduces earning abilities.

4.5 Wellbeing and Resilience

One of the outcomes of the multiple disasters affecting the Canterbury population was an emphasis on wellbeing initiatives and health promotion (Ardagh et al., 2018). The "5 Ways to Wellbeing" promotion by Community and Public Health in Canterbury (AllRight?, 2019), encouraged Cantabrians to Connect, Be Active, Take Notice, Keep Learning and Give. Participants found this campaign helpful in supporting staff and service users to take control of their own mental wellbeing after the earthquakes...

> *We really promote the use of the 5 Ways to Wellbeing...with the kind of safety net of EAP (Employees Assistance Programs)... we try to operate with good management of staff around EAP or counselling (Participant 5).*

Giving youth the opportunities to master new skills, connect with others and take control of their mental wellbeing was encouraged by participant agencies, (Hone et al., 2021), aligning with the 5 Ways of Wellbeing...

> *I think anything that is around positive wellbeing, delivers it so ...really pro-youth development and youth focus stuff where it is youth led ....be involved in groups, and to play sport and stuff (Participant 3).*

Another promotion activity focused on supporting people to undertake physical exercise. Exercising aligned with three of the five ways of wellbeing, providing connection, exercise and depending on the sport, being outdoors in nature...

> *Certainly our vision is to ensure we get more people being active more often. If we get more people more active that's going to help with their mental wellbeing.*

This was challenged by the destruction of numerous sports facilities by the earthquakes including clubrooms, buckled sports fields and major facilities such as premier sports stadiums and local

swimming pools (ICNZ, 2021). Sports had to find ways to adapt to the loss of facilities and find

different ways to deliver services. Targeted funding being made available from Sport New Zealand

supported innovative ways to make sport services available…

> *The release of money from Sport NZ and from the government has certainly helped in terms of keeping sports ticking along like the Community Resilience Fund, so there's certainly ways that we're now helping to provide funding and support for sports to survive (Participant 3).*

Psychosocial wellbeing was a focus for all participant agencies due to the multiple disasters

and participants spoke of this emphasis and the systems that evolved in supporting this in their

workplaces…

> *the need for more structured training… in regards to our peer supporters and that was really a positive outcome from that. Knowing that the work you do in supporting your colleagues through times like that and making sure that they have someone to talk to and then referring them on as well. It's just having those services in place so staff know where they can go if they need it (Participant 4).*

Family/whanau and community wellbeing was also a focus for agencies...

> *Simple sort of 'checking in' document to check in on people's wellbeing and mental wellbeing to ensure their communities were coping ok and if there were any ways we could support them to address it if things were going bad or slightly negative (Participant 3).*

For children and youth impacted by the disasters, tools such as the Sparklers toolkit,

(Sparklers 2020) Leading Lights website (Leading Lights, 2019) and the roll out of Mana Ake (Mana

Ake, 2021), a wellbeing programme aimed at primary and intermediate-aged students, assisted

students and teachers to promote wellbeing (Hone et al., 2021). Supporting teachers as role models

for children was a priority for education…

> *If you have a well teacher you are going to have a better learning environment for the pupil or the students so how can we support the need of the teachers, as much as the students as well, so across our team we are in there in supporting and enhancing wellbeing (Participant 3).*

Participants spoke of the focus on building resilience in the Canterbury population…

> *What we will deliver is around improving mental health and developing resilience… So we're looking at ensuring that they're mentally fit or mentally well, as well as physically well or physically fit, so how can we use our skill sets to enhance what's there (Participant 3).*

Participants observed that challenging past experiences had built resilience for older

generations, allowing some people to manage better than others during the disasters and enabling

them to assist others. This was true for Māori …

> *If we think about, resilience…., our experience here in…the 5000 calls… to the kaumātua, was that conversation enriched the lives of the caller, there were a significant number who had already lived through some pretty amazing periods in our own histories. So through depressions, they had lived through eras where self-sufficiency became a necessity for whole communities and so they knew how to do that (Participant 10).*

This occurred also for Pasifika who spoke of the resilience of family who had experienced

disasters before and who were therefore equipped to get through tough times. There was a

perceived difference between generations in resilience…

> *I think it's the resilience that we've come through, coming from the Islands that we were able to say "okay, this is another disaster and we're here now". Because at the back of our minds is, "we've gone through worse stuff back home so this is nothing"… So with our younger ones, it's like, they don't have the same resilience (Participant 9).*

Resilience was strengthened through innovation and by adapting to change that resulted in

positive outcomes. Three participants spoke of resilience occurring after the earthquakes and

mosque attacks with one commenting on how this impacted Cantabrian's responses to the COVID-

19 pandemic…

> *What was interesting was that we had lower admission rates, lower demand in Christchurch compared to an increase in most other places, and the only logical explanation for that was that Cantabrians are building up resilience and rolling with the punches by now because you know, apart from the quakes and the Mosque Attack there were the Port Hills fires, the floods, and people seem to have built up a resilience because we are not seeing, even now the demand has crept back up to almost pre-Covid level, but it is not even there yet where in other parts of the country it's huge (Participant 6).*

This increase in resilience was tempered by the comment from one participant related to anxiety in

the population…

> *I think the resilience levels have definitely increased but also other levels have increased like anxiety and it doesn't take much for that switch to be flicked (Participant 3).*

All participants outlined the positive aspects and outcomes of adapting to living, working

and learning during the COVID-19 pandemic lockdowns. The enforced opportunity to spend more

time at home was difficult for some but for others it was a chance to stop and spend time with

family and whanau…

> *There were some amazing moments when whanau were able to spend time together to do things once we were able to, people talked about just walking, just actually smelling the roses and their pets being really happy and their children being really happy (Participant 10).*

Participants said many of their staff thrived working from home. Workplaces noted the

mastering of new skills, a wellbeing tool in itself…

> *Everybody had to adapt to working in a very different way and in an environment that we weren't particularly I.T [Information Technology] ready either, in terms of our competence or our equipment, and so that was a steep learning curve for everybody but the positive out of it is that we are really well set up now for I.T (Participant 6).*

New Information Technology skills enabled people to work from home, creating change

in service delivery and an uptake in virtual and telecommunication services. This was an

important shift for tertiary institutions who sought to change the way they taught the

curriculum, resulting in positive outcomes for some older students who had struggled in the

school environment…

> *We have a whole bunch of our high-needs tamariki, that have really struggled with their normal school environment beforehand, that have done incredibly well with their whole learning under lockdown. Being removed from the classroom, that one on one, has worked extremely well and so we are working now on thinking a little bit differently on how we can work with them moving forward (Participant 3).*

The COVID-19 pandemic continues to drive innovation and all participants discussed how

they had to rethink their service priorities and delivery and anticipate what was required next. For

sports and the promotion of physical activity, COVID-19 restrictions were challenging…

> *So we had a huge effort in terms of redoing our website, having things on our website to reach out to others in the sports sector… and also with the physical activity, green prescription that was still being delivered, albeit virtually….and also made some of the sports think about how can they survive or how can they be more innovative in the season delivery and catering for all (Participant 3).*

Supporting staff wellbeing as well as that of their service users by embedding new approaches

to working, was outlined by a number of participants…

> *It's trying not to return to normal behaviour and actually things we have learned well, especially around wellbeing, how we embed positive wellbeing in our work, and keep that going forward (Participant 3).*

For Pasifika, resilience was bolstered by faith and spirituality in the aftermath of the

earthquakes and Mosque Attacks;

> *For our Pacific families…. We always fall back on our faith and even trying to make sense of what's happened and looking at it from the spiritual perspective…faith played a huge part in that, (mosque attack recovery) so just like the earthquake (Participant 9).*

Māori agencies provided support to Muslims in Canterbury after the mosque

attacks, assisting the recovery of those affected by the attacks…

> *From my perspective we understood the idea of that being, like their pa, and their marae... and to be unsafe in that place, a bit like your other home, is an awful thought for many people. There's that belief in being able to be safe when you come together in spaces, particularly when it is your spiritual centre, sanctuary. That space where you find safety across all of those measures of wellbeing. Nga tina ra wairua (Participant 10).*

Muslim staff also supported wellbeing by providing cultural education to non-Muslim staff

in agencies providing services to those affected by the mosque attacks…

> *We had really good support from our Muslim staff in terms of preparing our staff for how to culturally appropriately support people coming through and what to do and what not to do and so that was good (Participant 6).*

These examples of post-traumatic growth and resilience in Canterbury by participants

support the findings of Hone et al., (2021) showcasing the work done across agencies to strengthen

and build wellbeing.

4.6 Community Connection and Collaboration

> ***I think there were amazing community responses and we were a part of that (Participant***
>
> ***10).***

Community connection and collaboration in the aftermath of disasters, supports resilience

and recovery. Collaboration is a behavioural process that involves different actors working together

to create more benefits than can be produced in unilateral settings and is increasingly seen as a

means of addressing problems associated with the management of socio-ecological systems (Nkhata

et al., 2008, para 3). Participants spoke of their experience of increased connection and

collaboration during the earthquakes both for individuals…

> *when everybody is in it together and they are all sharing the same thing and there is a huge shared sense of community (Participant 7)…*

and for communities…

> *We also saw some amazing growth of neighbourly reach out and communities providing support for each other (Participant 10).*

This was evidenced again when the mosque attacks occurred, causing disbelief and distress.

Participants spoke of the demonstrated need for togetherness…

> *Like the earthquake, it was a shock to everybody so it pulled the community together and, …the day that we had in Hagley Park, that call to prayer that everybody who wanted to go could go and show their solidarity and meaning and that the world watched, I think the pride of that was somewhat healing (Participant 7).*

The mosque attacks demanded agencies examine their ability to respond to the Muslim community in a culturally responsive way and many used the opportunity to build stronger relationships. This challenged agencies to be innovative, forging a closer connection and driving collaboration…

> *One of the pieces of work that came out of the back of it was a shared piece of work between cricket and football, who were the two sports that were the most heavily impacted though the attack, and how we got them working together to address diversity and inclusion and issues around how different communities felt supported in sport (Participant 3).*

Communities were challenged by the COVID-19 pandemic owing to the need for social distancing and the pandemic lockdowns enforcing isolating at home. The community response in supporting those living alone, especially older people who are at a greater risk from the virus, promoted a closer generational connection and reliance on younger members of the community which could be expanded on…

> *There's also been some amazing connection because of that, and actually generational connection, but it is also a thing to go into somebody else's house you know, so what we would ultimately like is to build capacity within communities to be able to respond themselves and that's the lesson and also for that to be visible within the wider kind of integrated system of response (Participant 10).*

The repeated need to adapt to changed circumstances by working together, often quickly, to overcome the many obstacles that the disasters in Canterbury created, resulted in closer collaboration. This was a dominant finding expressed by all participants who saw this as an enduring positive outcome of the disasters…

I think the good thing is, with all the disasters we have gone through in Canterbury, we (the agencies) are really good at working collaboratively, so probably we have a good network, probably better than other regions I would say (Participant 1).

Collaborating by sharing knowledge and resources brought about a change that broke down

siloed service delivery and paved the way for future collaboration between services…

Everybody coming together, all the NGOS, the CDHB, everybody was coming together to share resources and that has lasted, I think we have better relationships amongst NGOs (Participant 7).

The importance of relationships in effecting collaboration also emerged from the data and

displayed the ability to build resilience through the connection that activities such as sport

provides…

What it highlighted was the quality of the relationships within the Muslim community and the impact sport can have on returning a sense of normality and a sense of wellbeing and positive wellbeing (Participant 3).

One participant said that for Māori, the experience of responding to emergencies

strengthened collaboration and their ability to respond to new situations…

We saw a number of positive collaborative outcomes, including other iwi support who came into our takiwātanga[6] to tautoko[7] in a moment when we were all trying to work those processes through. I think we've learnt a lot of lessons around emergency response, around an integrated approach. Sometimes that happened and it worked really well and sometimes we had to learn the lesson and be quick in learning it and be nimble in our response (Participant 10).

The need for a shared vision and clear communication was raised by participants which

aligns with a Collective Impact approach…

What we've learnt is that we need layered responses, we need to learn the lessons and make sure that we're implementing them and we need to have the right people in the right layers and communication across everything. How do you build shared language and shared understanding? I think we've become really good at that in Christchurch (Participant 10).

Overall, participants said collaboration was strengthened, proving invaluable when the next

event occurred, providing resilience as agencies moved to support their staff and service users

through the next disaster…

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[6] Local area
[7] negotiate

I think it gives us clues around the true intent of collaboration, not just those words but actually what really happens when we are able to do that. Have a shared vision, shared kaupapa[8], agree that we're on that kaupapa, that it's focused and, you know, people, just do it (Participant 10).

Findings illustrated the socio-ecological impact of these events on the Canterbury population, evidencing a rise in fear, anxiety, trauma and stress (Ardagh et al., 2018; Beaglehole et al., 2017; Bell et al., 2017). Secondary stresses, including loss and displacement since 2010, as well as the isolation and economic/medical uncertainty of the COVID-19 pandemic have caused a higher level of anxiety. The socioeconomic impacts are ongoing as people struggle with ongoing earthquake repairs (ICNZ, 2021) and the uncertainty of the economic impacts of COVID-19 (Ivbajaro et al., 2021; Menzies et al., 2020; MOH, 2020).

Cantabrians have, however, demonstrated the ability to adapt to these challenges and build resilience (Hone et al., 2021). Participants outlined the increased wellbeing that staff and service users gained through a targeted campaign to promote help seeking (All Right?, 2020) and a focus on self-management as well as increased access to wellbeing services. Community connection was strengthened as people sought to help each other survive through the physical, psychological and economic assaults, closer agency collaboration occurred to provide resources and services to those requiring support. It appears that by the time the COVID-19 pandemic arrived in Canterbury, agencies and the general population had the right tools, experience and knowledge to adapt yet again to a major assault to the ecosystem, giving them an advantage that others outside of Canterbury might not possess.

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[8] Plan

Chapter Five: Suicide and Suicide Prevention

Suicide profoundly affects people close to the person who has died and impacts those working to prevent suicide and support. This chapter reports on participants observations of suicide as it has affected their agencies and service provision from 2010 and discusses suicide prevention initiatives in their agencies and in Canterbury. Findings within the suicide theme examine participants' experience and views on suicide risk factors, screening and interventions including access to services and talking therapies. Findings also include participants' views on suicide as it affects youth, schools and the elderly. The presence of stigma relating to mental illness and suicide was also raised in this study.

Suicide prevention findings discuss participants' views on the need for expertise, awareness and education, addressing disparity and the role of information sharing, data, outcome measurement and finally resourcing and equity. These findings help further inform the context in what, how and who implements suicide prevention activities in Canterbury.

5.1 Suicide Risk

Participants spoke of the difficulties surrounding the identification of individual suicide risk, screening for risk, thresholds for individuals to be seen by specialist services and access to specialist care. Although risk factors for suicide and suicide attempts are known (WHO, 2012) predicting risk in individuals remains difficult (Mulder et al., 2016)…

> *At our level, the Government need to know about risk factors, the Government need to address them, the Council needs to address them, big organisations need to address them. We're trying to identify the individuals at risk and risk factors don't matter because it can be somebody who has no risk factors at all, right from someone that becomes at risk, and it can be somebody that has just about every risk factor known to man and has never seriously considered suicide. So it's actually about the individual not about the risk factors (Participant 7).*

The ability to screen for risk in individuals in differing agencies was raised, alongside urgent access to expertise if risk was identified and one participant asked for…

screening for frontline presentations with a very clear protocol of what to do for staff, so they have good guidance around identifying people who really are at risk and then accessing psychiatrist's assessments and whatever is needed from there (Participant 6).

Participants articulated the benefits of cross-sectoral collaboration in assisting each other to identify and manage suicidal risk in high risk populations outside of health…

I think the main benefits are the group, by virtue of the way it works, can draw in agencies that serve population groups that are most at risk, that wouldn't necessarily touch the health sector, …so it provides a forum for linking those agencies and assisting them to put programmes in place (Participant 6).

As discussed earlier (O'Connor & Portsky, 2018, as cited in Kolves et al., 2021; WHO 2021) risk factors for suicide are complex and all agencies on the CSPGC contained groups with increased risk. Self-harm as a risk factor was raised by education and social service workers who wanted more guidance in managing self-harm. Not all self-harm is a symptom of suicidal intent (Beautrais, 2001; Gaines, 2020; WHO; 2021) so identifying when care needs to be escalated was deemed problematic…

there's the whole when is self-harm, self-harm and when is self-harm the beginnings of a serious attempt to end your life? It's really hard to expect teachers to make that judgement (Participant 8).

Mental distress precedes suicide and participants noted that suicide was not a mental health issue alone…

You can identify as many people in the field as you like, you can provide services for those who are severely mentally ill but that only accounts for about one third of the deaths. So that's two thirds that aren't (Participant 7).

This finding underpins the need for cross-sectoral intervention capacity and training to address mental distress…

Our mental health system is set up to respond to people with a diagnosed mental illness. It does not respond well to other people who are seriously distressed (Participant 2).
Responding to suicidal distress that did not meet the threshold for involving specialist mental health services was an issue raised by many participants, voicing the need for increased access and appropriate referral pathways to services…

what is woefully absent is follow-up for people that don't make the threshold for tertiary services… somebody comes to ED (Emergency Department) and they're suicidal and

we refer them to their doctor. The privacy act says we cannot refer that person to somebody else who they haven't given us permission to, to facilitate getting them to primary care... If people have turned up to ED seeking help, then that's the mandate for helping them (Participant 7).

Encouraging people to access services was viewed as problematic however when health services were under pressure and waiting times were high…

W*e hear that capacity in mental health services are not up to it so then do you create more demand for services that cannot be met? (Participant 8).*

Participants said where a community was experiencing increased suicide risk due to previous suicides or attempted suicides, agencies required the flexibility to increase services…

We're often in a situation where we're advocating either short term or long term for an increase in capacity… in mental health services, primary care, or specialist mental health services, to support a community that's undergone a loss. Or NGO [Non-government Organisation] services, they needn't necessarily be statutory specialist mental health services (Participant 1).

Postvention capacity had the potential to be enhanced by closer collaboration and flexible resourcing.

All participants thought that suicide was an issue of concern in Canterbury This concern provoked discussion on the need for increased options and access to interventions for those presenting with risk.

5.2 Suicide Intervention

Agencies had differing processes to identify, refer and support people presenting with mental distress, depending on their populations. Talking therapies, staff wellbeing, access for complex youth to psychological services, trauma-informed care, adult mentoring and elderly suicide were raised when considering suicidal distress interventions.

The use of talking therapy was raised as a tool used by agencies…

all the staff have been trained in talking therapies so they are offering actual interventions every step of the way, not just waiting for a psychology referral but supporting and assessing people (Participant 6).

and talking therapy was utilised to provide a trauma-informed treatment approach by Māori to support youth…

> *We took that idea of circle talk, we're integrating that into a piece around behavioural change for youth, around a trauma-informed package that will go across our takiwā, te wai pounamu into children with care and life stories (Participant 10).*

Talking therapy is mentioned as an intervention tool in many national strategies to lower distress (MOH, 2019; WHO, 2021) and Brief Intervention Counselling was implemented in Canterbury post-earthquakes through primary mental health which has been well utilised (CDHB, 2018). Supporting staff working with people in distress, or responding to a death from suicide was crucial…

> *they are the frontline people to go out, there'll always be a psychologist in that group and their role is to support the staff… providing advice and guidance (Participant 8).*

Many of the participant agencies have responders who were exposed to vicarious trauma (Kerdemelidis & Reid, 2019; OVC, 2021) responding to the earthquakes and/or mosque attacks and who have attended attempted or suspected suicides. Participants acknowledged the need for care and oversight of their staff in Canterbury due to the cumulative effects of exposure to death and grief over time.

5.2a Youth Suicide

Sub-themes raised by participants relating to youth suicide included; concern over the younger age presenting with suicidal distress; the need for youth with complex issues to access help earlier; the desire for trauma-informed care; the value of adult mentoring and; having someone safe to talk to. The prevalence of youth suicide and suicide attempts in Canterbury, particularly the perceived younger age of presentation, were of concern to participants…

> *suicide rates have climbed internationally and we know we are not an outlier there, especially in young people. I mean what is striking is they are getting younger and younger and that's worrying but that's an international trend (Participant 6).*

Owing to the concern over the rise in youth presentations, participants thought increased and earlier access to services for youth with complex presentations was required as was earlier intervention…

> *Concern exists about a number of young people whose life problems or conditions, make successful intervention difficult. Such young people often come from lifestyles characterised by substance addictions, mental health problems, lack of attachment to any significant others, conduct disorder or an abuse history. Many do not receive help until their problems become so severe they come to the attention of the authorities as a result of their behaviour and we see this reflected in youth justice matters, frequent placement breakdowns, serious behaviour issues etc (Participant 2).*

Participants also identified the need for trauma-informed care for youth owing to the increased

risk...

> *We know that young people who have committed offences or have had prior contact with welfare services (in particular those with significant trauma) have the highest risk of suicidal behaviours of any of their age group (Participant 2).*

Participants raised the importance of having someone safe to talk to when a youth or adult person is

experiencing stress ...

> *we don't do enough about safe people to talk to that aren't necessarily family members ... regardless of age, someone safe and comfortable you can talk to. Sometimes you don't even know that that's how you're feeling until you are through that journey (Participant 4)...*

Providing positive adult contact for children in care aligned with this finding...

> *We are lucky to now have the transition support service to support our rangatahi much longer as it was a real gap for our 18 year olds leaving the service and not having enough support/resilience/coping skills to cope in the adult world. I think the more support and network they have around them the better it is that they have someone to talk to (Participant 2).*

One participant said supporting Māori youth at risk in Canterbury required a holistic approach,

acknowledging the need to strive towards equity for Māori in all areas...

> *If we don't change those environments under which they are seeking their world, we'll just continue to see the growth of whatever statistic it is that we are seeing right now. And I'm not sure that we are particularly good in most institutions and areas about responding to Māori let alone youth who are Māori (Participant 10).*

5.2b Elderly Suicide

There has been a rise in suicide rates in the elderly population in Aotearoa New Zealand

(MOH, 2021) and one participant voiced an observation over a potential suicide method amongst

the elderly that warrants further attention...

and they are doing it in a soft way like not taking their medications, like under or overdosing and so I think it's something that's out there in front of us and something we need to do something about (Participant 4).

Canterbury has an elderly population and an increase in this age cohort could affect overall rates (Barak et al., 2020; Barak et al., 2021), thus further study may be beneficial.

Although the interventions discussed by participants represented just a small number of the many activities occurring in Canterbury, they provided interesting insights into areas that were working and what areas required strengthening or further consideration.

5.3 Stigma

Stigma associated with suicide, suicidal distress and mental illness was identified by participants, who said this was occurring personally and professionally. Stigma and shame associated with suicide is exacerbated by societal and religious beliefs (Rimkeviciene et al., 2015) and can only be addressed through sustained awareness raising and advocacy (WHO, 2021). One participant observed that individuals and agencies often avoided discussing suicide…

There's still shame and discrimination around suicide. Lots of it, so it's still a huge issue that people or the organisations won't talk. It's institutional racism, there's institutional sanitising of suicide (Participant 7).

Professionals continuing to view suicide attempts or deaths as due to mental illness only, created barriers and perpetuated stigma that might prevent a wider response…

There's a lack of willingness within many health professionals to acknowledge this is anything but some form of neurological dysfunction and that's another stigma within itself (Participant 7).

This finding is supported by the many academic references to suicide prevention requiring a whole of agency suicide prevention response (Gaines, 2020; Kolves et al., 2021; WHO, 2021), one that is not the domain of health alone. The reticence of some agencies to provide data due to privacy issues or professional reputation concerns was also viewed as stigmatising by one participant…

why wouldn't you share? You wouldn't share because of stigma and discrimination… professionalism, de-stigmatising and information sharing should all be occurring (Participant 7).

Stigma was present in generational and cultural attitudes to mental health and suicide for Pasifika

also, delaying access to services...

> *If you look at the context of Pacific and mental health, it's a topic that is not discussed freely within families, within churches, within communities. This makes it even harder for people to present, so when people do it's at the extreme end, so we can't catch them before (Participant 9).*

Seeking to understand the issues facing younger generations growing up in both traditional and

modern Pasifika culture was challenging for parents and elders…

> *Then of course there's this suicide and it's like what is going on? We teach our children that life is precious, why are they trying to take it away and why are they not resilient like us? They see the world, they see things differently. I think it's interesting because we as Pacific are still trying to understand our own children and our younger generation (Participant 9).*

Pacific youth were however, more comfortable accessing services online and utilised resources,

sometimes without gaining the input from family according to the participant…

> *Everything's on line which is great, again, a younger generation can access the resources and stuff, so they can look anything up on-line however because we are family or community orientated, we tend to do things together and so this is where the disconnect is, as the older generation don't see mental health as mental health as such (Participant 9).*

> COVID-19 restrictions were also mentioned by participants as a potential source of stigma or

shame that might result in distress and hopelessness, increasing the suicide risk for individuals who

spread the virus...

> *There's huge stigma around those sorts of things, suicide, COVID and so we really are mindful of that (Participant 6).*

> The findings on stigma relating to suicide suggest, despite work to normalise mental health

challenges, parts of society still view mental health illness, distress and suicidal distress as abnormal

which maintains barriers to accessing help and implementing services.

5.4 Suicide Prevention Awareness

Participants raised the need for greater public awareness of the risks leading to suicidal

distress and continuing efforts to address stigma. While participants voiced optimism at the

increased community discourse, they also raised their awareness and concern about suicide in

Canterbury. Promoting suicide prevention awareness spans national wellbeing programmes to individual intervention for crisis situations and postvention responses. Awareness-raising and advocacy is a core pillar of the new WHO suicide prevention implementation guide (WHO, 2021). One participant thought it was important to make people aware everyone had a part to play in suicide prevention…

> *a huge part of that is cracking people's thinking that this is a mental illness only and that mental health institutions own the sole responsibility of suicide as a society, as a world society (Participant 7).*

Participants thought the new Canterbury Suicide Prevention Action Plan would raise awareness of suicide prevention implementation in Canterbury, having aligned this with the national suicide prevention plan *Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand.* (MOH, 2019)…

> *Hopefully it (action plan) will provide another mechanism for raising awareness and helping people who suddenly start to think about this to have an idea of somewhere to go for support, for advice, information, whatever (Participant 8).*

Focusing primarily on mental wellbeing and avoiding a public focus on suicide was supported by some participants. Although talking publicly about suicide can assist in reducing stigma it may increase risk by normalising suicide as an option and caution is advised (MOH, 2019; WHO 2021). Focusing on wellbeing only was favoured by one participant…

> *It's about education around awareness of how little behaviour changes can go a long way and I think our role, whether it be the DHBs or the public health campaign, is around getting awareness out there of what positive wellbeing can lead to, and maybe use some different types of language to make it a place we want to be rather than not want to be (Participant 3).*

Promoting awareness is discussed further in findings on communication (Chapter 6.6), incorporating the consideration of the audience being targeted and methods used. The debate over an overt versus covert approach to suicide prevention led to participant discourse on whether it was essential to acquire expertise or knowledge when participating in suicide prevention implementation.

5.5 Expertise

When forming a suicide prevention committee and working groups the WHO (2021, p.3) suggests "at both levels persons should be included who represent authority, administration and technical expertise". Participants were asked if they thought acquiring specialist knowledge on suicide prevention was important. Gaining knowledge of what works in suicide prevention and what to avoid was strongly valued by all participants…

> *it's knowing what suicide prevention means and what's negative and what's positive. I guess the role of leadership is to educate people to know what that means and I think that is one of the key roles we can play as a Governance committee (Participant 3).*

Participants strongly agreed the CSPGC gave them the ability to acquire and utilise suicide prevention knowledge and that this was useful…

> *I've learned so much. There's an amazing array of activity occurring and if you are going to move into any space, this is a really meaningful one (Participant 10)…*

The gravity of the work and the need to ensure the right knowledge was available and being applied was articulated by one participant…

> *It's crucial. We are talking life and death. This is not an issue where we are talking about something that does not affect people's lives. If we get it wrong, we will see people's lives lost and we don't get a second chance (Participant 9).*

Although building knowledge was essential, participants said acquiring expertise was not as important as knowing who to contact with the expertise…

> *we've realised that we have our expertise in our field and that if we need expertise in another field then we need to know who, rather than be that expert (Participant 4).*

Having others to talk to in this field was also viewed as supportive and assisted with formulating new ideas and breaking down agency silos…

> *I think what we all do well is we'll advocate to seek advice and seek expertise to enhance our sectors if we don't have the knowledge and resources to do so ourselves (Participant 3).*

It was made clear by some participants however that knowledge and expertise alone would not effect change unless it was backed up by action…

> *You can't effect change, reading reports…we need a few people to do that, distil it on our behalf, set half a dozen clear objectives and get out there and do it (Participant 7).*

Action was also required that supported population mental wellbeing on a broader scale…

> *Knowledge is not enough. Health promotion and prevention is vital (Participant 2).*

Community expertise was a resource raised by participants as essential to suicide prevention…

> *the approach that we take is to attempt meaningfully, to connect and understand the communities affected by suicide loss… and try to craft with them, with what expert knowledge and resources we have and the expert knowledge and resources they have, a process, not a solution, but a process which can best meet their needs. And not only in the initial aftermath of a loss, but what can be developed or grown within a community, whether it's a school community, whether it's a geographic community (Participant 1).*

One Maori participant said in order to break down isolation and disconnection and strengthen wellbeing, community responses had to respond to the cultural identity of their community…

> *Breakdown of communities like we've talked about, disassociation and movement, unstable housing, these are all factors. We need to make sure that we have those spaces that respond to the identities of the community that we are serving (Participant 10).*

Considering differing cultural contexts and acquiring cultural knowledge and expertise was vital in suicide prevention and this is also highlighted by the following participant statement about cultural expertise in relation to the Pasifika community…

> *If you look at the context of Pasifika and how we view the world or how we view life, just even our culture, Pasifika has so many faces. How can we understand the bigger picture if we don't have that particular background of understanding (Participant 9).*

Creating opportunities to work collaboratively and share knowledge ensured that harder-to-reach populations could be approached and supported by the agencies that know them best...

> *There are sectors of the population that traditionally would not reach out for help if they were struggling and if you don't have those agencies involved in making it ok, to get support, to have a different attitude about suicide and getting help, then you are not going to make a difference (Participant 6).*

The sharing of formal, informal, peer, cultural and community knowledge and expertise was raised by all participants as essential to providing effective suicide prevention responses, aligning with the WHO direction to promote suicide prevention awareness and the sharing of knowledge and expertise (WHO, 2014; WHO 2021).

5.6 Deprivation

A finding that emerged in relation to suicide prevention knowledge and expertise was the need to address deprivation in communities on a wider scale by improving social determinants...

> *When you look at who dies by suicide, these are generally people who capitalism doesn't serve well (Participant 5).*

Deprivation is a strong indicator for suicide risk (Gaines, 2020; MOH, 2015; WHO 2021) and improving social determinants was emphasised by participants...

> *Are we doing enough? We know that a living wage, food, employment, those government level things would change suicides, so we can battle away teaching individuals the ecological system of wellbeing, we can battle away with services trying to help the individuals within our area but we know this is a societal thing and we need to look more definitely at that (Participant 7).*

Undertaking current research on multi-deprivation within Ngāi Tahu in Canterbury was voiced by one participant as an opportunity to build a better picture of need that could be utilised to target support and resource and mitigate the effects of colonialisation (Durie et al., 2017; Hatcher, 2016; Lawson- Te Aho & Liu, 2010; WHO, 2021).

> *So the work they've been doing is letting the data cluster itself and then looking at patterns that emerge over lifespan. So over say one year you take males within this age group and then you can look at whether there are some things that are repeated in that cluster (Participant 10).*

Given the known increase in suicide risk attached to deprivation and rates of Māori suicide in Aotearoa New Zealand, this again underscores the need for equity-based interventions. The need for trauma-informed care was raised when discussing deprivation, suggesting a link between deprivation and trauma...

> *I'm really interested in a safety net much higher, which means that people earn a living wage, live in a decent house, have access to whatever healing they need to get through their trauma informed care. There is pre-existing trauma in all our communities...there's not enough understanding of that (Participant 5).*

Participants noted causal links between deprivation, trauma and other known social determinants...

> *There is more work that needs to be done to reduce the common causes of drugs and alcohol use, social disadvantages, colonisation, and isolation (Participant 2).*

Participants also stated that regulating access to alcohol and use of alcohol offered an

opportunity for preventable intervention…

> *I'm picking on alcohol, but it's that sort of stuff we can do in being more proactive and trying to move our ambulance a bit more up the cliff (Participant 4).*

Disparity was also mentioned as a differing concern; in that where people perceived others had

advantage, this created distress. This links to previous comments on equity and was also poignant

for Cantabrians in relation to the progress of earthquake insurance settlements and rebuilds…

> *as still today, people have houses that haven't been touched because they haven't got agreements and others have bright shiny new houses, so that disparity creates problems (Participant 7).*

Targeting deprivation to increase wellbeing was supported by the NZ Government in the

Wellbeing Budget of 2019 (MOH, 2019) however the economic impacts of COVID-19 may disrupt

progress. The importance of continuing to reduce deprivation was a recurring finding in this study…

> *We are attempting to modify the social determinants as they are modifiable, so the social determinants around housing, employment, transport, nutrition, mental wellness are all things that I would continue to invest in (Participant 5).*

5.7 Suicide Prevention Education and Training

Participants shared that differing training programmes were occurring across agencies to

upskill staff in suicide prevention such as QPR (Question Persuade and Refer) Gatekeeper training

and the national *Lifekeepers* (Le Va, 2021) programme…

> *if I think about Le Va who came along and talked about their amazing work they do, I would have them at my agency any time to provide training. Absolutely, it's so important (Participant 2).*

One participant outlined how Lifekeepers was being utilised in sport to equip new coaches to

support wellbeing by identifying any concerns amongst their teams and themselves…

> *We are very much embedding it as a player first centric approach, ensuring that includes mental wellbeing and suicide prevention as well as supporting the coaches coming through (Participant 5).*

Participants also emphasised the need for training in developing the skills to ask people difficult

questions, particularly when asking a person if they were contemplating suicide…

> *Sometimes it's just asking the question that can be difficult (Participant 4).*

Participants found the differing courses run by the Mental Health Education and Resource Centre on wellbeing, suicide prevention and managing suicidal distress helpful. Participants in agencies such as Oranga Tamariki and Corrections said they had formal programmes to train staff in recognising and intervening when their service users were in distress.

Participants noted the importance of building the capacity of agencies and staff to identify and intervene when people were in distress or when a suicide had occurred, such as providing the local programme, "Back Up", formulated to provide postvention support for schools. Utilising programmes such as Mental Health First Aid to build skills that supported wellbeing amongst staff and stressed communities was also valued by participants…

> *Mental Health First Aid type programmes in group settings could be really valuable, in the community as well as in our consumer groups, because anything that gives you different stress management tools, help prevent the crisis that leads to you deciding that life is not worth it (Participant 6).*

As staff turnover was steady in some agencies, participants noted it was important to ensure training to support client wellbeing and prevent suicide was offered regularly…

> *it should be on a regular cycle because there is quite a staff turnover. We get lots of young interns who are here for a while and then they're gone so the staff who have got training one year won't be the same staff the next year (Participant 8).*

Other participants said they did not receive regular training or it was provided ad-hoc and thought regular training or education would be beneficial.

Agency support and supervision for staff dealing with people in distress was emphasised. Participants said fostering a culture of development and learning was protective when working in an emotionally challenging environment and assisted with managing the impact of the work as well as cementing new skills...

> *There's lots of support for on the job development and training. And there is a real commitment to a culture of support and supervision which helps. Whilst it is not training, per se, it creates the kind of learning environment that enables people to both manage the impact of the work but also how to process and understand. And both the formal training, and the informal collaborative peer support, supported by a supervision approach are really important (Participant 1).*

Local symposiums and forums were also valued by participants as the knowledge provided could reach a wider audience. Presentations provided by the Suicide Prevention Coordinators (SPCs) to agencies were instrumental in building awareness of the need for training and one participant said this had resulted in training being advocated for nationally in their large organisation. The SPCs saw their role in building community capacity by providing knowledge and education to the staff of agencies and organisations…

> *We want to be a conduit for the knowledge and make sure that whatever we set up stands with or without us. Community engagement, the model we use, is high front end but then low ongoing as you make it integrated and sustainable (Participant 7).*

Considering the culture and community receiving the knowledge was important in ensuring good outcomes in capacity building according to participants. They also said providing community education on the potential for alcohol and drugs to increase susceptibility to self-harm and suicide contributed to suicide prevention. Participants saw potential in collaborating to provide suicide prevention training…

> *If you are all motivated and willing to work together it would be great, you know we could work collaboratively, do training together across agencies (Participant 6).*

5.8 Suicide Data and Information Sharing

Participants spoke of the significant media speculation that earthquake related stress would lead to an increase in suicides (Chapter 4.1.d) and one participant noted the misleading nature of a Ministry of Justice graph tracking suicide numbers in Canterbury post-earthquakes, located on the MOJ website (MOJ, 2018)…

> *There was a graph that said "Canterbury Suicides in relation to earthquakes" which actually had no relation to earthquakes and everyone's perception that they would be increased wasn't met. They were lower than normal for quite some time afterwards, like significantly, just after the quakes and then slowly returning to the mean (Participant 1).*

Suicides did not increase significantly in Canterbury (MOH, 2020) however participants held differing views on numbers of suicides and suicide attempts in Canterbury…

> *Canterbury's numbers for suicides have been higher than other regions for many years and have no doubt to do with the trauma Cantabrians have been experiencing over the years and long-lasting impact (personally, mentally and financially). We know from mental*

health services and emergency services that self-harm and suicide attempts were also high (Participant 2).

This observation around a rise in suicide attempts may be responsible for the perceived increase in suicides and this concern was discussed by another participant...

I don't think we should be thinking what's wrong with Canterbury, rates are increasing throughout New Zealand. We've had our years where the country's increased and we haven't. Suicide rates across the world are increasing not just numbers, the rates, so there's a need to have this on our radar, to try and understand it (Participant 7).

There was an observation from one participant that the effects of COVID-19 were emerging as contributing to the decision to end people's lives...

I think what we are certainly seeing in terms of postvention is that COVID is being more regularly mentioned (Participant 1).

Another participant noted that suicide rates appeared to be decreasing, which provisional suicide data for nationally reported suicides in 2020 and 2021 (MOH, 2021 supports...

certainly we have not seen an increase in suicide through COVID which was what everyone was anticipating. And that's typical of war situations, the suicide rate often goes down, people are dealing with the realities of what is going on and almost have a different view on the value of life (Participant 6).

Differing viewpoints on the current rates of suicide attempts and suicide in Canterbury as voiced by participants underscored the requirement for more publicly accessible data both locally and nationally. This is a delicate undertaking however as low suicide numbers provide higher potential for identification which can cause distress. Sharing agency information and data to identify trends and communities at risk in order to implement broader wellbeing strategies was supported by participants as they felt it built trust and partnership...

we're all in this together, we are all trying to create an impact, especially in wellbeing, mental health and suicide prevention, if we don't share our information how can we learn from each other and how can we make a positive change? (Participant 3).

Caution as to what data was shared and the interpretation of it was raised however...

You know we're getting better at it but I am still cautious about who has access to that and who analyses it. I think we should always share the analysis impact for knowledge, but I think that we have to be careful about who's framing it (Participant 10).

Participants were asked if their agencies gathered data that assisted in agency monitoring of suicidal distress or self-harm. They reported that Oranga Tamariki have an electronic system that records suicide attempts or at-risk behaviours, triggering a referral to provide a response; St John generates information on presenting conditions such as self-harm; Sport Canterbury accesses wellbeing information from surveys, participants and their Canterbury Report Card and; Community and Public Health operates the Canterbury Wellbeing Survey, monitoring overall wellbeing in Canterbury. Specialist Mental Health Services participants said they have a reporting system that investigates deaths of people who were known to them or in their care at the time of their deaths as well as suicide attempts and emergency presentations. SPCs said they work with the local Coroner's Office to obtain information as it occurs, responding in real time if an individual or community is at risk…

> *we use the Coroner's data which is just valuable beyond measure and we need to make sure we keep that. Knowing what's happening in your community is absolutely essential. If you took that away, you'd put suicide prevention back ten years (Participant 7).*

SPCs also use the Coroner's national provisional data to identify the demographic profile of people, who are taking their own lives. Participants said it was also helpful to gather data on other events that might stress a population such as the numbers of farms affected by mycoplasma bovis, where herds were culled, affecting the rural farming community. Local Māori were undertaking an extensive data exercise to examine patterns of stress and strength over the lifespan using multiple data sources. It was hoped this exercise could inform them of the times when whānau may require extra support…

> *it will give us a really nuanced picture of need we can utilise to leverage back into support and resource… Maybe what we can do is figure out when those wraparound points are most effective from that sort of clustering (Participant 10).*

Information sharing in suicide prevention across agencies can be a difficult endeavour owing to privacy guidelines in Aotearoa New Zealand which historically have prevented sharing of information across agencies. In discussing whether information-sharing of both data and client/community risk should occur, participants agreed information sharing was essential. One

agency cited recent child protection legislation legitimising the ability to share information where the risk was greater not to, as beneficial in addressing issues where sharing had been inconsistent between agencies. Privacy was a major consideration in sharing information but participants said if there was significant concern for the wellbeing and safety of an individual or family then information sharing was imperative…

> *Needs to be purposeful, aid the wellbeing of individuals, families, communities. Needs to be protected at the level of interagency agreements and practitioner communication. It is vital, dangerous for people not to share information. We have plenty of examples of where information is being shared in a respectful and timely manner, that's saved lives (Participant 1).*

Participants thought there was a mandate to share information if risk was identified but care was needed to ensure that information was kept contained. Gaining consent from the individual or family was preferred if that was a possibility.

Findings revealed the richness of data available and untapped potential for data-sharing across agencies that might further strengthen suicide prevention in Canterbury through identification of the impact of initiatives and challenges on the socio-ecological environment.

5.9 Suicide Prevention Outcomes Measurement

Participants spoke of the challenges in measuring the outcomes of their suicide prevention programmes and one participant observed…

> *We can never really measure how many lives we have saved but we can measure some things (Participant 5).*

Obvious measures that indicate success are a reduction in suicide rates and self-harm rates but one participant noted that small data sets and fluctuations make this problematic…

> *even though they feel high, suicide rates are very low, so making a difference to those in terms of numbers statistically is very difficult to demonstrate because it does fluctuate; that's the hardest thing, but doing nothing is not an option (Participant 6).*

Anecdotal accounts gave some credence to the success of interventions but are difficult to collate…

> *There will be people that we might encounter, individually or anecdotally, that would be able to say "because of the action of this person, or that person, or that group, I'm still here". That's really hard to count and measure (Participant 1).*

Participants thought there should be outcome measures for suicide prevention programmes but identifying those measures was not obvious...

> *I think the suicide rate is one you obviously have to monitor, there has to be a way of tracking what programmes are in place but also the impact they are having on the different groups they are reaching. I think a bit of thought needs to go into what those measures might be because it is about societal wellbeing and a resilience that is quite hard to measure (Participant 6).*

Local insights were also valuable in identifying need and might confirm or counter national data…

> *I think the insights that you gather, especially locally from the region's point of view give you a much clearer understanding of where there are needs and gaps versus locally. We can hypothesise with the stats we get from a national point of view (Participant 3).*

Being able to demonstrate results was important as participants said it kept them motivated to continue investing in suicide prevention work which was an important insight. Actions that established clear, simple, shared goals, made measurement possible. One participant noted the difference between reporting on activities as opposed to measuring their outcomes…

> *One of things that we fall into the trap of doing sometimes in multi-agency groups is just telling the story of what we are doing, not necessarily measuring what that means…. I think you need to set really clear measures… what is it that we are trying to do? (Participant 10).*

Capturing collective data from multiple agencies was easier if there were collective goals. One participant suggested pre-existing activities should have their own evaluations in place before being considered as part of an overall suicide prevention plan. Participants spoke of the impact of having a Canterbury cross-sectoral suicide prevention action plan…

> *I think it will have a huge impact, I think it is very important to have a Canterbury one specifically targeted to this region and issues and barriers within our region. We will be able to monitor trends and support actions that are outlined in the plan. It provides leadership and coordination…. It's accountability, responsibility and all of that comes out of it (Participant 2).*

When asked about annual reporting on the new plan, there was some concern that annually might be too long a period and it was important to be responsive. Measuring for equitable outcomes and gaps was also important…

I think, maybe it is annual but we revisit the conversation periodically, deliberately, as well. So it is data, it is gaps, it is equity, what are our lenses? (Participant 10).

Resourcing was the final consideration in supporting evaluation, suggesting commitment and funding were required…

I think we need to look deep and qualitatively into the data that is generated, our collaborative data, to see what people are actually saying is different. That's an in-depth process in itself and needs adequate resourcing and a mindset that enables that degree of evaluation (Participant 1).

The difficulty of evaluating complex multi-level suicide prevention interventions was raised by all the participants and was further discussed as to its impact on the ability to resource suicide prevention implementation, where effectiveness is not able to be sufficiently demonstrated.

5.10 Resourcing

Collaborative approaches to suicide prevention need to be resourced adequately. Participants in this study highlighted the need for dedicated suicide prevention funding and resourcing to effect change and ensure sustainability. One participant articulated this with regard to a focus on prevention…

Integrated and sustainable doesn't survive without funding. And a need to recognise, just as we have with healthy homes, that actually a front-end investment will stop the back-end cost, it's worth the front-end investment (Participant 7).

Ensuring funding for people to be involved in suicide prevention also gave mandate for activities and collaboration to occur as outlined by Kõlves, et al., (2021). Intentionally funding cross-collaborative suicide prevention provides the mandate for agencies to release or obtain resources to contribute to this area and legitimises agencies dedicating resource to it. Time and money were the two resources that participants identified as essential…

You know, time and money are really the same thing, we're talking resources aren't we. Stuff doesn't happen unless people are allowed to spend time on it. And one of the challenges of collaboration is someone or some group 's got to hold it all together. Particularly when you are talking about big collaborative efforts across sectors across communities (Participant 1).

Participants suggested the establishment and funding of a lead agency that could utilise existing resources and programmes and coordinate an overall cross-sectoral programme of suicide

prevention. Concern was voiced that if resourcing for a lead agency did not occur, programmes could become person-specific…

> *the danger is that passionate people do things on the sniff of an oily rag and the passionate person goes and the system falls over (Participant 4).*

and unsustainable…

> *having protected resource to give time to that... often, it will come down to the passion of one or two individuals within an agency to somehow shoehorn that into the other roles. (It needs to be) a clearly ring fenced, designated, meaningfully acknowledged role (Participant 1).*

Having the right people involved and resourcing them for their time ensured sustainability especially as cross-sectoral committees included members for whom suicide prevention is not their core activity…

> *Time constraints and resource constraints. Often with any kind of cross sector things, you have the same people around the table with numerous different hats on in different forums and you want people who are really able to put the energy into it because otherwise it becomes tokenistic (Participant 6).*

> Participants thought a cross-sectoral committee facilitating collaborative efforts across

agencies, containing differing resources, allowed access to a greater pool of resources…

> *With the Governance Group and being able to work across the sector, you've got a bigger pool of resource that you could rely on, it just needs a really concerted effort and a collaborative process (Participant 6).*

Participants also commented that collaboration resulted in activities often being provided without specific funding whereas resourcing intentionally was more effective…

> *the beauty of collaboration is that often we find ways of doing those things, but resourcing does make a difference to sustainability (Participant 10).*

Collaborative efforts to pool resources could obtain good outcomes but may mask the need for ongoing resourcing, resulting in reducing the possibility of increased funding and weakening the sustainability of cross-sectoral projects. This was an interesting finding and worth further study when considering working in complex cross-sectoral endeavours. Taking a strategic collaborative approach to suicide prevention allowed resources to be identified and utilised intentionally…

> *It's looking at how suicide prevention and mental health and wellbeing and resilience all sits out in one area and if it does, how those resources are shared. Rather than try and silo*

things we should work together to create much more of a uniformed approach if possible (Participant 3).

Where agencies were not part of a coordinated approach, participants said the possibility of gaps in suicide prevention programmes might occur owing to differences in agency priorities…

Where either the individual, or the agency, has a very narrow view of their role then there can become large gaps for people based on that narrowness of vision or mandate (Participant 1).

Participants considered whether funding for suicide prevention should sit wholly in health or should be spread across agencies was considered by participants…

It does require dedicated resource that sits in a protected place within the strategic goals of that particular sector. So, if it sits in health, I would argue that we need to think broadly about what other ministries fund, so that it doesn't just come out of a health budget (Participant 1).

Participants said resourcing should be negotiated, transparent and flexibly applied according to the local needs of the community. Competitive funding models made resourcing projects difficult at times, encouraging ringfencing of funding, favouring larger organisations and challenging collaboration where agencies were competing for the same funding…

You have agencies that compete that are meant to walk the discourse of collaboration but are set up into a competitive funding model where they effectively are trying to meet their own bottom line in competition with each other. I think competitive funding damages that collaboration (Participant 1).

Moving from a contracting to a commissioning environment was suggested as a better format for resourcing as the community could be involved in identifying and purchasing according to need...

I think there should be resource that matches need. If whānau are saying that cultural competence is a major barrier and enabler then we need to look wider at who is providing those services. Competition in communities has had a negative impact. So how do we look at commissioning for collaboration and impact? (Participant 10).

With impending changes in health funding in Aotearoa New Zealand occurring in 2022 (MOH, 2021) a move to a commissioning approach may be imminent. Funding for suicide prevention is finite, but complex, as many other funded activities contribute to successful suicide prevention implementation. There was recognition that agencies were asked to do a variety of extra activities

without increasing funding, thus they were constantly having to prioritise resourcing and where to invest money and time…

> *there's always new things that we're being asked to do and generally with no increase in our capacity. And that means that something else doesn't get done (Participant 8).*

Participants discussed their level of resourcing to undertake suicide prevention and intervention in their agencies. Most agencies wanted increased resources and suggested areas where it could be utilised…

> *we try and push the wellbeing wherever we can but if we had funding where we could actually design our own service or even the activities, to suit our target group, that would be fantastic (Participant 9).*

More resources for Public Health to promote Wellbeing to a wider audience was one suggestion, echoing the work that occurred post-earthquake in the All Right campaign (All Right?, 2020). One participant thought that an increase in staffing of the suicide prevention team to focus on networking, coordination and strategic management would support wider collaboration. Another participant said resourcing to employ a youth specialist suicide prevention coordinator would allow a special focus on youth. Given the concerns raised about the increase in youth distress and referrals for assistance, this suggestion holds merit. Funding to support the evaluation of successful pilot programmes was another request…

> *Sometimes we have brilliant pilots that really make a difference. Irrespective of that, for whatever reason, they don't continue, so there's a loss of trust within communities when that occurs (Participant 10).*

Some agencies provided wellbeing advice as they undertook core activities, acknowledging that they could do more if they were resourced but for other agencies providing wellbeing support on top of core business would require new investment. Where an agency's core activity was providing care for individuals most at risk, the high demand for intervention services often prohibited the ability to provide prevention programmes. Participants identified the possibility to share resources and training across agencies to maximise existing resources. Funding that enabled

equity for Māori was essential, one participant advised that resourcing should be directed to the most challenged communities to support what was working well…

> *If you get it right there you're probably going to be fine in terms of the rest of your messaging and actually there's a whole lot of stuff that is already working that's awesome (Participant 10).*

Tapping into the potential of communities could reduce the need for resources. Funding mechanisms for Māori were critiqued where national programmes had been applied locally without consultation and given to an intermediary. Utilising trusted providers was key to enabling equity…

> *Funding mechanisms were too slow moving into the Māori community, we had visible national programmes but they hadn't asked what was needed at a localised level and instead of distributing directly to localised community it went to intermediaries. From my perspective that's a nonsense, let's go directly into those communities where they are trusted, and allow them to continue to do what they do (Participant 10).*

This finding is pertinent given the establishment of the Māori Health Authority which will oversee Māori health funding from 2022 (DPMC, 2022) and outlines the need for local consultation to ensure efficacy. In arguing for resourcing, Pasifika said telling their story was more impactful than relying on data and ensuring their stories were heard by policymakers was vital…

> *We depend on our managers and leadership to take these stories to a higher level so they know what's happening on the ground so they can inform the policy. I think it depends on where you are, if you're in leadership, then you definitely have a role for taking that up (Participant 9).*

For Pasifika, given the data suggesting distress in youth is of concern, obtaining qualitative data from the stories provided as well as quantitative data may result in a clearer picture of both challenges and solutions.

The Wellbeing Budget (MOH, 2019) funded differing agencies to increase wellbeing across Aotearoa, New Zealand however as yet no specific national funding has been dedicated to support collaborative suicide prevention implementation.

5.11 Suicide and Suicide Prevention - Key Findings

Key findings within the suicide theme saw participants call for improved screening protocols in agencies in Canterbury and increased options for people presenting with suicidal distress,

especially where mental illness was not indicated or where thresholds to access specialist mental health services was high. Access to education for professionals on self-harm as a suicide indicator was also requested as was a flexible approach to providing services for communities with increased risk. Access to talking therapies for people at risk was valued and ensuring frontline workers exposed to suicide attempts and deaths were supported was deemed essential in Canterbury, especially given the repeated exposure to trauma post-earthquakes and mosque attacks.

Participants said there was a need to increase trauma-informed interventions, more access to services for youth was required and having someone safe to talk to was raised as being protective. Further study into the lower rates of young Māori deaths from suicide in Canterbury was indicated as were the methods by which elderly people in Canterbury were choosing to overdose or cease taking their medication in order to take their lives.

Stigma around suicide and mental illness prevailed at a personal, professional cultural and generational level in Canterbury, creating barriers to accessing care. There was optimism voiced however at the level of awareness raising occurring around suicide prevention in Canterbury.

Gaining expertise in suicide prevention was valued as was seeking out expertise in other individuals or in communities. Acknowledging and utilising community expertise in Canterbury to maximise community strengths and understand gaps was essential. Addressing deprivation and ensuring programmes were targeting equity were both imperative to preventing suicides. Participants thought coordinating cross-sectoral suicide prevention training opportunities in Canterbury held potential as a capacity-building endeavour but regular opportunities were required. Increasing opportunities for community education on the effect of drugs and alcohol on suicidal distress in Canterbury was supported and the findings indicated a study on the effects of media reporting in Canterbury post-disasters would be beneficial.

Surveillance activities such as collecting and sharing cross-sectoral data were essential but participants urged caution around privacy and the intentional use of the data. Visible and accessible public data was requested to prevent untrue rumours. Participants said establishing clear simple

goals and formulating a cross-sectoral plan could make measurement of goals possible and visible progress helped maintain cross-sectoral motivation. Only activities containing pre-existing evaluations should enter a cross-sectoral plan. Anecdotal accounts of the positive impact of suicide prevention activities were illuminating, prompting the need for a greater emphasis on qualitative methods to contribute to outcome measures.

Time and money were the two resources required for suicide prevention implementation and participants said the lead agency in the cross-sectoral group needed to be adequately resourced to coordinate the work. Participants thought cross-sectoral work could provide a bigger pool of resources but said gaps might occur if not all the agencies were represented. Competitive funding models were deemed unhelpful and if Canterbury agencies were not funded for their suicide prevention work, according to participants, competing interests could derail implementation progress. Funding for activities had to be equity based, targeting deprivation and disparity however by utilising community resources there was potential to reduce resourcing requirements. Increased resourcing for public health wellbeing campaigns and a youth suicide prevention coordinator were suggested.

These findings on cross-sectoral suicide and suicide prevention in Canterbury further inform the context in which suicide prevention activities can be implemented in Canterbury. The final findings chapter examines the role of leadership, communication, collaboration, cultural considerations and lived experience in supporting successful suicide prevention implementation in Canterbury.

Chapter Six: Suicide Prevention Implementation

Until 2021, suicide prevention implementation was a process that was rarely discussed (Reifels et al., 2022) and the question of who should be implementing suicide prevention cross-sectoral actions and how they should be implemented remained largely the domain of the WHO (2014). In establishing this study in 2018, the opportunity to obtain data from a functioning cross-sectoral suicide prevention committee afforded scope to ask what components contributed to a successful suicide prevention implementation framework. Questions posed to participants covered discussion on elements of the WHO 2014 framework (WHO, 2014; WHO 2021) and the Collective Impact (CI) model (Kania & Kramer, 2011) including cultural context and lived experience.

In this final findings chapter, participant views on the importance of leadership in suicide prevention, the value of sector relationships, professional wellbeing and the benefits of agency and community collaboration are discussed by participants. The requirement for effective communication is raised as is the importance of action plans in implementation. The value of including the voice of lived experience and the ability to operate within the cultural context are examined with regard to their importance in effecting suicide prevention implementation in Canterbury and beyond.

6.1 Leadership

The WHO says "multisectoral collaboration in all its forms will not thrive without clear governance and leadership to move the process forward" (WHO, 2021, p.14). Demonstrating leadership was a key theme amongst participants in considering the effectiveness of cross-sector suicide prevention groups. Participants said leaders had to be open to learning and intentional in sharing their knowledge and resources with other agencies which required effort…

> *The other form of leadership is knowledge leadership, people are sharing both knowledge and impetus. So, part of impetus is having an open attitude and resources, and I think that is happening because a few individuals have been intentional around it. They're trying to create that. It's not a given. It has to be a steady intention across years. (Participant 1).*

Participants also suggested that leaders in cross-sectoral should be flexible in their approach and be

willing to learn from each other…

> *leadership needs to be open, open to knowing that there are other ways and other solutions that work for the different populations and not always taking the assumption that one way works for everyone (Participant 9).*

Participants said where collaboration was required, one agency or leader had to be responsible for

the overall coordination of the cross-sectoral group…

> *One of the challenges of collaboration is someone's got to hold it all together. Or some group has got to hold it all together. Particularly when you are talking about big collaborative efforts across sectors across communities (Participant 1).*

The characteristics of reciprocal dialogue and listening were important in cross-sectoral endeavours

and participants said respect was an important component…

> *where a sector group like health takes a lead, but it's a lead that doesn't corral, it just provides organisation and structure and a place to return to, that's ideal… if one of the big players is taking a role in holding it all together but respects, values, seeks, owns, and works with the input of the others, then we're going to get there together (Participant 1).*

Where leaders or agencies were inflexible, self-interested or not willing to be innovative,

participants said progress could be slow and challenging…

> *those who hold expertise in terms of professions, or ministries, they find it difficult to relinquish their idea that they've already got the solution and the answer. I think they come to it through the process but there's a whole lot of tensions that happen along the way (Participant 10).*

This comment suggested that the influence of the group might assist in developing a

collaborative approach but that this process took time. Cross-sectoral leadership that facilitated the

identification of shared values, vision and supported the growth of sector relationships was touted

as the key to systems change by participants…

> *How do we affect systems change? We start with small steps, it starts with vision, it starts with agreed values, it starts with relationships then grows into what I think of as a real pulling space where you can go 'hey what do you really reckon here' (Participant 10).*

Participants saw the CSPGC as building a vision for collaboration and implementation by

acknowledging what was already in place, supporting both the CI approach of creating a common

agenda and building on work already done. Participants said innovation required people who could

implement decisions quickly to be effective, resonating with the many decisions and actions that were made post-earthquake and mosque attacks to support individuals and communities where the normal structures or processes were not available (CDHB, 2018).

Ensuring the voices of all agencies and the communities, workplaces and people they served were heard, required a conscious effort and agreement on the process by the cross-sectoral group to increase participation. Participants said passionate people might begin the process and then the challenge was in getting all parties around the table over time. One participant said signing up to a charter cemented involvement and commitment and assisted with accountability.

> *I think that's a really good way of getting organisations involved is that they've signed a charter. A bit like the Safer Communities, they talked to all the organisations then actually got organisations that were committed to the kaupapa to actually sign the charter (Participant 4).*

Having the right people around the table was imperative for cross-sectoral suicide prevention, according to participants, as it created a wider influence to address the challenges and demonstrated that all agencies had a part to play in suicide prevention. Participants said some agencies may not initially understand their role or ability to influence suicide prevention until they met other leaders from differing sectors and had an opportunity to be involved in a cross-sectoral committee. The impetus to become involved in suicide prevention activities for some agencies, who did not view prevention as core business, was at times driven by the loss of a service user or staff member to suicide…

> *unfortunately the best opportunities are actually when something bad's happened because then people are really open, whereas until something bad has happened most people aren't really thinking about it (Participant 8).*

Participants said the CSPGC membership was positive because it was a Canterbury-owned initiative and the membership reach and stakeholder connections were broader than just health. Due to the complexity of suicide prevention, reaching out to as many sectors as possible was vital but took time, collaboration and the right people...

> *it's a quite complex space [CSPGC] but there are good people in it so I think it is a flourishing space (Participant 8).*

Getting the right balance in the attending leadership between 'top down' (management) and 'grassroots' (paid and volunteer staff) was key according to participants, who viewed the formation of the CSPGC as creating a voice for Canterbury that had the potential to influence national suicide prevention provision. Members were already collaboratively pooling resources to provide workshops and sharing information to launch a Canterbury Suicide Prevention Action Plan and participants attributed this to good leadership. Strong leadership had the ability to create the environments that promoted wellbeing…

> *Senior leadership across the community has a responsibility to articulate collectively what living well looks like for this city (Participant 5).*

Participants thought strong leadership could illustrate the impact of collaboration in suicide prevention implementation, by ensuring that outcomes were identified and action taken to achieve the outcomes. Inspiring staff and colleagues to undertake actions and building their confidence to tackle the complex issue of suicide prevention was also a feature of effective leadership…

> *Leadership, being inspiring and being confident and reassuring to other people who go 'this is too big, this is death, this is too big, to bring it into something do-able, is far more important in this sector than a huge wealth of knowledge (Participant 7).*

This comment on the magnitude of attempting to implement such a complex programme of actions underscored the need for competent leadership. The WHO (2014, p.85) said "sustained leadership and collaboration" was a necessary input to successful suicide prevention implementation and participant findings supported a sustained approach. Leadership also entailed facilitating the process and maximising the time of busy participants…

> *How do we make meetings strategic and quick and have a leader who can make sure the information presented is relevant and succinct? (Participant 7).*

In considering which agency should provide overall leadership, two participants thought that Ngāi Tahu[9] should be resourced to lead in suicide prevention in Canterbury in collaboration with another agency, to provide cultural leadership…

> *It would be beneficial if we had one of the Māori providers take the lead. And then a government agency assist (Participant 9).*

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[9] Name of indigenous Māori tribe in the South Island

By taking the lead, Māori could ensure that culturally effective ways of working were occurring, such as a whānau ora[10] approach which works with the whole family…

> *I will be really interested if there was a national whānau ora approach because given the disproportionate number of Māori who die, I wonder if Māori take the lead, what impact that would have (Participant 9).*

The importance of ensuring indigenous and cultural leadership and knowledge in suicide prevention implementation is considered further in this chapter. Participants confirmed that leadership, provided at national, regional and local levels, was integral to successful suicide prevention implementation and the intentional selection and support of leaders in each area was a key factor in establishing effective cross-sectoral collaboration.

6.2 Sector Relationships

Cross-sectoral collaboration is not effective unless participating agencies and the individuals representing them are able to build meaningful sector relationships. The power and impact of relationship-building across agencies was acknowledged by all participants who commented on the strength of the agency relationships in Canterbury…

> *We've got our house in order in terms of cross-agency collaboration. Part of that is the development of meaningful relationships between groups, and individuals within groups that are clearly invested in this kaupapa… and there has to be permission for that at every level, whether it's the strategic governance level or whether it's at a clinician level (Participant 1).*

Developing personal relationships by attending cross-sectoral meetings was valued by participants as it enabled swift actions as well as support…

> *You build all the relationships and then if you want to do something new or you've got a big problem to solve or you've got a crisis, you can pick up the phone and get a good hearing (Participant 8).*

Close sector relationships allowed a greater understanding of what each agency was doing which developed tolerance and trust…

> *for others to see the role that Sport Canterbury plays is wider than just delivering sport... giving others an appreciation of what we can do, the reach we can have across the*

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[10] Maori approach to wellbeing focusing on family as a whole

> *sport and physical activity and health sectors and education sectors and the level of involvement as well as trust, is probably wider than people appreciate (Participant 3).*

A number of participants raised the notion of trust, recognising the strength of the relationships enabled them to trust other agencies to respond to community need as required or reach out if they required assistance. To build trust between agencies, openness was required…

> *That means where people are at a personal and agency level, more connected than they were before. And by connected I mean willing and open to hear the experience of another to offer assistance. Willing to see suicide prevention and postvention as a whole of community responsibility rather than that specifically of professionals within any one agency (Participant 1).*

Responding to three major disasters since 2010 had resulted in agencies working closely together which strengthened relationships, built trust and afforded opportunities…

> *I've capitalised on those relationships since then and built my responsibility for suicide prevention into those platforms and those networks and those relationships that existed and existed strongly because of the earthquakes (Participant 7).*

Building a culture that fosters relationships, trust, and respect across participants is a CI principle (Collective Impact Forum, 2016) and these findings highlighted the importance of building those relationships to effectively navigate suicide prevention. Ensuring there was a proper cultural process to cross-sectoral meetings also assisted in building relationships, fostering commitment and honesty…

> *I think the karakia[11] is really important to the whakawhānaungatanga[12] and the building of relationship. That allows people to bring their whole selves to the meeting (Participant 5).*

Effective relationships enabled mutual learning and sharing experiences, both positive and negative, strengthened relationships and built collaboration. One participant said you needed to build relationships before partnerships and another participant stated that suicide prevention was about…

> *health promotion, strengthening communities and having relationships (Participant 2).*

Successful relationships also contributed to changes that were sustainable…

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[11] Opening prayer
[12] Process of establishing relationships

It is our vision and practice as a team to be part of the wider community of practice that fosters meaningful relationships that lead to sustainable and protective community change (Participant 1).

One of the opportunities that occurred post-earthquakes was the Suicide Prevention Coordinators building a closer relationship with the Coroner to enable real-time information and data that could assist postvention responses. This relationship was described as vital to being able to implement suicide prevention in Canterbury. This is an example of where a significant disaster context led to a strengthening of practice and systems to better respond to increased risk in the community. Building successful trusting relationships was a vital element of suicide prevention cross-collaboration and held a further benefit, the ability to support professional wellbeing.

6.3 Professional Wellbeing

The formation of the CSPGC contained an element that is often overlooked in discussing suicide prevention, the element of professional wellbeing. Many of the members were the only person in their agency responsible for the suicide prevention or mental wellbeing portfolio. Connecting with others who have this portfolio and responsibility was comforting, informative and affirming for participants…

I think there is a lot of informal supervision and informal information sharing. I don't know the detail but I trust that it's going on. And it's mainly because of that group (Participant 6).

This sense of community was important in supporting members of the cross-sectoral group in such a complex and emotive undertaking as suicide prevention and it provided hope…

I don't feel alone. I don't feel like it's all on me. I feel like I'm part of a community who really want to make a change, this gives me hope to do my job (Participant 1).

For Suicide Prevention Coordinators, the establishment of a cross-sectoral committee containing operational managers and people with clinical expertise allowed them to feel supported and obtain informed opinions on the work they were undertaking…

Being able to go to a group, present what you are doing, have really high level intelligent strategic thinkers feeding back questions to you and directing things is hugely important to our work and very reassuring to us to have a level of governance even if they are not specialists in the field. We are the specialists so we are not going to them for their

specialist knowledge on suicide, we are going to them for their strategic knowledge, for their knowledge of their organisations (Participant 1).

This effect of a cross-sectoral group providing mutual collegial support is not commonly considered in policy frameworks but is an important outcome that may warrant further attention. All participants expressed the collaborative benefits of working as a group to share knowledge and mutually support individuals and agencies, as opposed to a siloed approach.

6.4 Agency Collaboration

Agency collaboration moves from the development of sector relationships to the ability to work together. All participants valued the opportunity for agencies to work cross-collaboratively in delivering suicide prevention, citing the ability to share resources and learn from each other both formally and informally as important outcomes…

one brain can think with the power of one brain, two brains can think with the power of three brains, four or five brains have infinite capacity. You bring people together to share on a problem, then you have an infinite brain. And that's what we need, we need people to come together and share their experiences and share their learning and get an infinite brain around this issue [suicide prevention] and then make some decisions around how we are going to change this (Participant 7).

All the participants expressed support and enthusiasm for continuing cross-collaboration in suicide prevention amongst agencies…

We are all in it together and suicide prevention requires a cross-government/agencies approach, sharing resources and trainings/model of practice across agencies and working together collaboratively (Participant 2).

To ensure effective collaboration, agencies needed to demonstrate support by providing their representatives with time to participate as well as resources to effect activities…

One [requirement] is an organisational commitment, an openess to a collaborative approach that's foundational. That time and money is apportioned to collaboration. And that the attitude of management which administers both time and money is invested in cross-sector engagement and mutual responsibility and mutual respect (Participant 1).

Learning from each other, both formally and informally, as a group and as individuals, reinforced good practice and was a benefit that participants identified…

we don't have to continuously do new things, we can learn from each other. That is one of the potentials of a collaborative group, so I can learn from you or actually if you've already got that, what else might we wrap around? At all times noting the potential for connection across (Participant 8).

This also demonstrated the value of being able to build on resources already available, which is a precondition in the CI model (Hanleybrown et al., 2012). Collaboration was also viewed as contributing to better outcomes owing to the ability to use collective wisdom and experience…

> *the opportunities are much greater and far wider when you work together, so one of the things I've looked at is how can we work together to create the greatest impact, that collective impact approach…. The more you can work together, the more you can achieve with collaboration and get a much greater impact collectively (Participant 3).*

Participants spoke of the ability to effect systemic change by working cooperatively. This required sharing knowledge but also listening to other's experiences and being prepared to compromise…

> *I know that I may hold a part of an answer for one solution, for part of a problem, but that actually together with our collective minds and resources we have the opportunities to solve stuff together and to create systemic change. And that can only happen if you get systemic partners working together… If you want to create meaningful change that keeps more people on the planet, everybody with an investment in that needs to give way to each other, meaningfully listen, and then act co-operatively (Participant 1).*

Participants did identify that competing priorities or a change in membership could dictate the amount of investment agencies gave to working collaboratively in suicide prevention…

> *prioritisations differ across organisations, what's high priority for one is low priority for another. You get the right person in the right place and magic happens, you get someone who it's low priority for and then you have to build up the trust so that you can be clear about what the drivers are… I think on the balance of experience, more good things happen than bad things (Participant 5).*

Clarity and building trust were again mentioned as important components of successful collaboration. The rise of zoom meetings due to Covid 19 gathering restrictions had possibly assisted commitment by lessening the requirement for attendees to travel to meetings, according to one participant, contributing to greater involvement. The political function of establishing a cross-sectoral group was viewed as giving the public confidence that work was occurring in such a complex space…

> *we need to show that there is interagency activity for the public good that is competent. ….it's not so much about doing new things, it's about everyone knowing what's already happening and strengthening that and occasionally saying there's a glaring gap*

here, how can we best plug it and who is best to lead on that. So that's the purpose that it [CSPGC] serves (Participant 5).

Identifying gaps and identifying how and who to respond to those gaps assisted in providing a comprehensive implementation approach. An interesting comment on risk, referring to trust, mutual responsibility and rejecting a siloed approach to suicide prevention was offered by one participant…

> *when you collaborate, you assume some risks of your collaborative agency partners. But to not do that, I believe you create more risk (Participant 1).*

This quote spoke of the benefits of working together and sharing knowledge that lowered the level of risk as participants were more fully informed when effecting responses. Group size was an important consideration according to participants. Diversity was essential but too large a group could paralyse decision making whilst too small a group might be ineffectual…

> *because of the formation of the Governance Committee we are able to provide a more strategic point of view but it's also ensuring that we get the right parties to the table so that nobody's feeling left out, so that everyone can see alignment to it, to iwi or Pasifika communities or to the general population of the region. I think it's getting a lot stronger (Participant 3).*

Participants also said there had to be agreement of the function or purpose of the group, whether it was wholly strategic or operational or a mix of both. An interesting finding was that the CSPGC decision to rotate the chairperson position appeared to increase the active participation of all the agency members and spread responsibility to the wider group, increasing ownership and underscoring this was not an issue for health alone. Reporting back to agencies on the work done also built ownership...

> *rotating the chair, not having anyone be the lead in that respect, it does put it back on each agency to be a really active participant in the programme and having to report what their agency's doing to the wider group is part of that so it's giving the message that everybody has a responsibility to address this, this isn't a health thing that health can solve on their own, it's a community thing (Participant 6).*

Participants said the opportunity for agencies to understand that suicide prevention was a

whole of system responsibility and value the collective input was assisted by the formation of the

CSPGC and had not occurred previously...

> *people are talking to each other and are valuing the fact that it is not just education,*
> *it is not just health, it's everybody. That wasn't happening a few years ago and I think that's*
> *a good start (Participant 8).*

This insight illustrated the CI backbone function of facilitating dialogue between partners

(Hanleybrown et al., 2012) and the WHO framework of building multi-sectoral collaboration (WHO,

2021). Influence was mentioned by a number of participants as aiding investment and collaboration

and enabling agencies to work together on projects or work separately on the same issues but more

effectively with knowledge of what the other agency was doing...

> *We have a number of organisations and people within them, both with influence and*
> *investment. Actual investment to see greater collaboration. And to see both co-work and*
> *alongside work happening. So, people working in tandem and people working in parallel. I*
> *think that is happening here (Participant 1).*

Building successful relationships and identifying common goals were key factors in effective

collaboration and participants said these were occurring in Canterbury...

> *I believe that our networks are huge, relationships are fantastic and there's common*
> *goals being shared so I do believe that we've got a good platform and we're continually*
> *developing better strategies to run out on that platform (Participant 7).*

at both a strategic level and at an operational level...

> *every aspect of our work involves collaboration at a systemic, interagency and*
> *practitioner level. The work by its very nature is and must be collaborative to be effective and*
> *sustainable. Our postvention working group is an interagency group and our work in*
> *supporting suicide prevention in other parts of Canterbury only exists because of*
> *collaboration and mutual support (Participant 1).*

Collaboration at both a policy and operational level was reported by all participants, with

inter-agency partnerships resulting in both successful preventative work and a change in policy and

practice in some areas...

> *our investment in the School Guidance Counsellors Forum has paid dividends again*
> *and again in postvention situations and the opportunity to supportively influence practice*
> *and policy (Participant 1)...*

Additionally, the collaborative preventative postvention work being undertaken in schools was

raised by a number of participants as being of high value…

> *the suicide prevention coordinators are just amazing and the postvention work that is being done mainly in schools has been brilliant (Participant 2).*

Collaboration was successful where reciprocity was occurring and agencies were able to contribute

to each other's goals…

> *If Education can contribute to health's goals and to welfare's goals and to whoever's goals, that's a really valuable thing for us to be doing and likewise I expect them to contribute to our goals. And that's how you get greater value (Participant 8).*

6.5 Community Collaboration

Participants acknowledged the importance of collaborating with communities to foster

wellbeing and to embed suicide prevention coping skills that communities could utilise if they

became stressed. The following participant talked about the disconnection people experienced …

> *people have become disconnected, through family disruption, not having the same kind of community supports that people used to have but also social media and the kind of influences that young people have nowadays and having to deal with through social media (Participant 6).*

Disconnection could also occur amongst agencies and working collaboratively could strengthen

communities…

> *Given the often fragmented and siloed nature of our approach to living in western culture, there can always be more done to work across communities. You know, statutory organisations, NGOs, the level of policy and governance, at the level of organisations agreeing to work collaboratively. Sharing information that can lead to potentially more safe outcomes for those people who are really struggling (Participant 1).*

Often gaps in services occurred because the natural support systems had disappeared over

time, enhancing disconnection. Participants said suicide prevention meant aspiring to build

connected, supportive and integrated communities and to achieve that, a focus on community

development was essential…

> *We need to continue to focus on community development. Having connections and a support network is crucial (Participant 2).*

Collaborating meaningfully with communities to strengthen them required the ability to

listen and be flexible…

> *But the key ingredient is the degree of flex and responsivity to any individual community. Because every community has different dynamics and needs to be heard as through their dynamics rather than have a template from outside of their community imposed on them (Participant 1).*

Encouraging communities to create their own programmes enhanced wellbeing and the

likelihood of success…

> *if we want to create impact we'll look at engaging communities, gathering evidence around a particular topic, understand the themes and what's coming out. Take it and then codesign something that we can then take back to the community (Participant 3).*

Encouraging communities to create their own programmes utilising collaborative co-design methods

enhanced wellbeing and the likelihood of success...

> *You know that willful hopeful belief in the strength of community is something that I think needs to be more coordinated (Participant 5).*

Overall, participants spoke of the power, potential and impact that occurred when working

collaboratively across agencies and with communities in designing and implementing suicide

prevention activities in Canterbury.

6.6 Communication

Communication is an essential element of successful suicide prevention collaboration

(Gaines, 2020; Rezaeian et al., 2021; WHO, 2021). In this section, participants discuss the differing

types of communication and the need for clear, regular communication that can support a faster

uptake of knowledge and therefore a quicker adaptation of services. Intentional facilitation of cross-

sectoral communication is raised, as is the value of storytelling in building trust. Caution in what is

communicated is advised due to the sensitive nature of suicide and communication platforms are

also considered. Finally, the tension between normalising suicide whilst attempting to promote help-

seeking is raised.

At an operational level, sending regular emails that were relevant assisted communication

and were cost effective according to participants, however in-person meetings and forums enabled

brainstorming and added value that could not occur in emailing. Regular dedicated meetings that

fostered relationships and communication with a purposeful agenda aided good communication…

That sense of reciprocal dialogue is incredibly rich and embodies what our country is meant to be founded on. That requires listening more than I speak. And that's a huge challenge in knowledge driven organisations where we actually create both within our own minds and hearts but within our institutions the ability to listen powerfully and respond on the basis of that listening (Participant 1).

Formal and informal communication was valuable but informal communication could cut across process. Clear communication amongst the CSPGC to confirm the aims of the group was important in creating opportunities and building collaboration and confidence…

it's not one agency who are putting their head above the parapet but actually we're all in this together and again it comes down to that clear communication and being able to say what we are trying to achieve and articulate so we are all playing from the same sheet (Participant 3).

Achieving identified goals and actions contributed to clearer and more effective communication…

if there is an agreed vision, principles and action plan it can be quite easy as long as regular updates and regular good communication occurs… then others can see where they can add value, they can see what's going on or they can see who to contact if something was to occur, so it's just good clear communication (Participant 3).

Communication amongst agencies and in meetings allowed agencies to see the overall view of what was occurring in suicide prevention, allowing agencies to inform others of work that was occurring and utilising communication to clarify common goals…

Canterbury is one place to broker good conversations and shared aims. We do that better than some areas (Participant 5).

This finding suggested that Canterbury agencies perceived they had a high level of communication, perhaps driven by the need to work closely together post-disasters. Hearing both challenges and successes assisted agencies to adapt and grow and build on existing services but participants said good communication required intentional facilitation…

…increasing service capacity and communication collaboration between services rather than more programmes and projects. How do we build on the excellent things that are already happening rather than introduce something new? And how do we continue to facilitate people communicating meaningfully with each other between services and groups? (Participant 1).

This indicates the need to facilitate cross-sectoral communication and therefore the need to intentionally resource this, aligning with the CI model (Hanleybrown et al., 2012). Participants saw value in telling stories as they demonstrated genuineness, which built trust at the governance level…

I'm a strong believer in telling your story, we have this governance group where we come from different areas or organisations, we have different experiences, skills, qualifications, but we altogether have this very important piece of work. We seem to come together and you have your professional face on, if we want to share, it has to be game face off, so people get to see the real person and the experience, the real experience that they bring to the table (Participant 8).

Telling stories, as well as providing data, assisted in promoting the cross-sectoral suicide prevention collaboration occurring in Canterbury…

I think it is through positive storytelling, good communication and just using stats… to tell the positive story of collective impact (Participant 1).

Participants also spoke of the benefits to their agencies that communication allowed…

But we really have something that we should be proud of… we're all doing little pieces of work that is brilliant and you don't know about what others are doing that can be really good for your agency too (Participant 2).

Due to the sensitivity of suicide as a topic and the need for caution when publicly discussing suicide, thought needed to go into the communication between agencies and by agencies…

Because of the nature of this topic, we need to balance objectivity with impact and knowledge of impact. And, I believe that how we structure our interpersonal communications as agencies, and how we interact with the public, needs to reflect those priorities (Participant 2).

Ensuring a cross-sectoral communication plan to launch the suicide prevention action plan fostered shared agency responsibility and one participant thought it was important that one trusted person was seen as the face of suicide prevention in Canterbury, to be the conduit for information and a face for the media…

Suicide prevention needs a face for our media. If we had a face, somebody's that's trusted, to present would be incredibly reassuring for the community (Participant 7).

A website was suggested as a good way to disseminate information to the public and participants said they could also use their networks, social media platforms and media teams to disseminate suicide prevention information. Using differing media platforms, mediums and approaches was important to reach all ages and cultures, using all platforms available and using the right language for messaging to different population cohorts.

It was acknowledged a fine balance was required between not normalising suicide as an option for people in distress by overly promoting suicide prevention and some participants favoured promoting help seeking and information for people in distress instead…

> *the media campaign has to be safe and has to be correct and appropriate…because it is easy to do harm with wrong messaging with suicide (Participant 5).*

Enabling people to have conversations when they felt unsafe required considered communication…

> *The only way we will change this is making this an everyday conversation. So that anyone can start that conversation and that can be a movement toward healing as opposed to potentially harmful (Participant 10).*

Communication at all levels was required when undertaking such a complex endeavour as suicide prevention but due to the nature of the topic, it needed to be intentional and considered.

6.7 Implementation – Action Plans

Participants were asked for their views on the creation of a cross-sectoral suicide prevention action plan for Canterbury. Participants responded by highlighting the value of separate actions for Māori and Pacific communities and the ability to build awareness, shared language and outcomes. Participants cautioned the need for flexibility in the plan and input from all stakeholders however they thought the united approach by sectors built hope.

Having a strategic cross-sectoral document supported the operational work by allowing stakeholders to see how their actions contributed to the whole prevention continuum but it needed to be relatable and accessible…

> *I think it will have a huge impact, I think it is very important to have our Canterbury own one that works for us in our region, specifically targeted to this region and issues and barriers within our region. We will be able to monitor trends and support actions that are outlined in the plan. It provides leadership and coordination. It's accountability, responsibility and all of that comes out of it (Participant 2)*

Participants saw value in all agencies signing-up to a plan, as this provided support for the direction and signalled commitment from the agencies. Māori and Pasifika participants viewed being represented strongly in the plan in each of the action areas as essential as it sent a national message about the Canterbury context, showing the value of providing cultural actions within a suicide

prevention framework. Raising awareness of suicide prevention and where to go for help, advice and

information was one aspect participants thought may be achieved via a collaborative action plan.

Many thought the plan should identify and coordinate clear actions for each agency with timeframes

and regular reporting to ensure that actions were occurring…

> *I think if we have an action plan we should put actions for each agency in it with regular reporting of what has been done. Clear time frames work really well because otherwise some take forever. (P1)*

An action plan helped clarify shared language, understandings and outcomes but had to be

responsive to changing need…

> *there is a difference between talking about something and actually enacting change to move towards it. And there's something beautiful in, sometimes we don't know the end (Participant 10).*
> One participant thought agencies with specialties or interests should be grouped together so

they could support each other to achieve the actions in the plan. Unifying the differing suicide

prevention agencies actions strengthened the understanding of the work that was occurring and

reduced stigma and discrimination by building awareness that suicide prevention was a shared

endeavour in which everyone had a part to play, according to participants. Working together to

build a cohesive plan created ownership and built hope in a complex area that was sometimes

overwhelming…

> *If we've got genuine interest and buy-in from agencies that can see their own work, and the work of others, within the plan and the plan is alive and can be evaluated, and can shift, I think that will give people hope (Participant 1).*

Creating meaningful change together also strengthened hope…

> *Personally, I've been encouraged by how much we are trying to do and how we're trying to get a good strategy going… it's just positive forward steps that we're doing together (Participant 4).*

Participants said although a cross-sectoral plan was positive, the effectiveness of the plan relied on

the relationships of the contributors and that agencies needed to see themselves reflected in the

plan to be engaged…

> *But a plan rests on the bed of relationships. And where people have an experience where a plan helps them make meaningful change together with other people, they will have*

hope… So, for me, a plan is only as good as the relationships between those who inform it (Participant 1).

Making decisions differed from implementing actions and one participant thought there

needed to be better processes for those doing the work in agencies to inform those making

decisions, to enhance alignment. Ensuring all agencies had an opportunity to voice their opinions in

order to progress actions was another important consideration…

> *You do end up often with a coalition of the willing so as long as the unwilling or the quiet have had their opportunities and that is documented, then you put a timeframe on it and then you do it (Participant 5).*

Participants were positive about the creation of a cross-sectoral action plan and it was

interesting to note the references to a plan providing hope at an agency and community level.

6.8 Lived Experience and Co-design

The voice of lived experience in suicide prevention incorporates people who have attempted

suicide and the voices of people bereaved by suicide. Lived experience is essential in the co-design

and co-production of suicide prevention as it can inform intervention by acknowledging both

successful and unsuccessful interventions (Ali et al., 2021).

Cross-sectoral opinions on the need for lived experience in cross-sectoral suicide prevention

affirmed its importance but participants said the mechanisms to hear those voices required

consideration. Storytelling had the power to be influential…

> *The best way to capture lived experience is through stories and stories are really powerful (Participant 8).*

However, there had to be a clear reason, defined outcomes and a supportive process to support the

voice of lived experience…

> *people need a clear rationale and a good process before they're going to put their taonga[13], their journey of suffering out. And they want to feel like it counts for something. Something meaningful that they can say helped that group to do this. That empowers people if they feel like their experience changes things, then it becomes protective of them. (Participant 1)*

Being mindful about the process was mentioned by most participants due to the gravitas of

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[13] Treasure, prized knowledge.

the content…

> *If information can be collected respectfully, carefully, clearly, and the limits of how it may affect change being clearly given, explained to, and understood by those who are giving the information, then I think there's a chance that people may share their journeys (Participant 1).*

'Empowering' and 'energising' were terms used to describe lived experience input into suicide prevention co-design and implementation and one participant shared an overseas experience where feedback from suicide survivors informed services in a timely manner, resulting in improved services. Ensuring diversity was essential and participants said there needed to be commitment to ensuring communities and individuals are listened to and quoted accurately as those with lived experience hold expertise…

> *those who have lived experience and who are whānau and the wider ecosystem who are supporting on a day to day, moment to moment way, they also hold an expertise (Participant 10).*

Involvement of those with lived experience assisted ownership and supported implementation and funding a group to directly provide collective lived experience input was suggested by one participant.

If the process of involving those with lived experience in a cross-sectoral group was flawed, it could be debilitating and paralyse progress. The person with lived experience had to be robust and have allowed some time to lapse since their suicide attempt or bereavement otherwise participants felt it was not demonstrating safe practice to be exposing them to the challenges of suicide prevention repeatedly…

> *I really worry about people being held in their worst moment (Participant 5).*

Although indirect, participants said the voice of lived experience was also heard through the many frontline staff working across the agencies and by the suicide prevention coordinators…

> *The work our suicide prevention coordinators do in the postvention space ensures the voice is captured and all the training they provide in the community features the voices of those with lived experiences (Participant 2).*

Utilising lived experience and the learned expertise it provides to co-design services with people and communities was empowering and enable innovation…

the beauty of working in a co-design space and working with communities is that we are acknowledging that everybody holds an expertise and it's the interaction across that expertise that can create something magic (Participant 10).

6.9 Indigenous and Pasifika Approaches

Whānau Ora employs a kaupapa Māori approach in an integrated way to improve the wellbeing of whānau, or families, as a group, addressing the individual needs within the context of whānau and their culture (Te Puni Kōkiri, 2022). It aims to support Māori families to create the services they need to thrive by building on collective strengths. This indigenous Aotearoa New Zealand approach resonates also for Pasifika populations for whom a collective family wellbeing approach is the cultural norm (Jensen et al., 2019). Whānau ora fits wholly with a socio-ecological systems approach and was discussed by participants as being a proactive, strengthening and healing way of working with communities and individuals to improve overall wellbeing...

We react to deficits but we're are not good at proactivity and aspiration. That's why I think whānau ora is such an interesting approach in terms of building the relationship at the whānau level and saying what is it that matters most to you and then trusting the whānau to know what matters most and getting in behind that (Participant 5).

Whānau ora works from a strengths perspective rather than a deficit model which was important in framing the cultural narrative…

what Māori have said consistently is that we want it to be framed in a way that is positive. We don't want people telling us what is wrong with us and what is the deficit. …And if we think about the kōrero[14]around intergenerational trauma, and the naming of disease states being a thing, how do you name yourself? (Participant 10).

Strengthening and healing families together as opposed to a singular psychological focus is a powerful approach and the findings of one Ngāi Tahu youth study was insightful…

Youth linked their own mental health directly with that of their wider whānau… which seems so obvious but it's not always a predominant whakaū[15], as they're seen in isolation. They were really clear, "I am not well when my whānau are not well". You cannot divorce those parts from them… And there's a lot of really strong conversation from whānau around the place of healing conversations (Participant 10).

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[14] Conversation
[15] Occurrence

This particular approach to supporting wellbeing and healing trauma was reinforced

repeatedly by Māori and Pasifika participants, emphasising the importance and healing power of

connection to culture…

> *He had followed the trajectory of somebody that is told and internalises a message about worth and now he was seeking something else. And that is the power of remembering that there is an older blueprint for your greatness (Participant 10).*

For suicide prevention implementation in Aotearoa New Zealand, healing the harms of colonialism,

achieving equity and strengthening Māori by designing programmes for Māori by Māori is

imperative (Durie et al., 2017) and utilising cultural and community knowledge is essential to

achieving those aims…

> *Everything we have done is about the whānau voice, what are the mana whenua views, what is the local ecosystem of support already in play and how do we work with that? If we are talking about a governance level it is also multidisciplinary and often multi-agency and our role is a space holder around equity. What's the lens for equity, what's the lens for generational poverty, which is a determinant of wellbeing? What is the lens for loss of healing modalities across generations, what are some of the other responses that we might create because of that? (Participant 10).*

Participants supported Māori leadership in suicide prevention, promoting Rangatira[16]

models that included a holistic approach…

> *Not as a sub-contract to another provider but as a lead. A collaboration of Māori in that space who are leading out there and a coordinated response together (Participant 9).*

Cultural leaders' time was pressured and their participation had to be purposeful or they risked

becoming overworked. The cultural process that determined participation could not be overlooked…

> *We had a particular korero where we said Imagine if as Ngāi Tahu we didn't have to come to every group? I have to be judicious about what I utilise my time for, it's usually purposeful. We have to be really clear about what our role is as the iwi[17] and what is the right of mana whenua[18] to be represented, whose right it is to be sitting at tables? (Participant 10).*

Working from a whānau ora perspective demonstrated the ability to heal and strengthen

Māori and Pacific individuals, families and communities and reinforced the impact of using cultural

models to support suicide prevention.

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[16] leadership
[17] Tribe
[18] People of the land

6.10 Conclusion

This final findings chapter illustrated the requirement for leadership that was open and respectful in suicide prevention. The intentional development of sector relationships supported cross-sectoral collaboration and professional wellbeing. Working together in such a dynamic field was demanding but by collaborating and sharing knowledge and resources and identifying gaps, participants saw benefits in the provision of suicide prevention activities to individuals and communities. Working together demanded clear communication and defining goals assisted in clarifying aims and actions. Due to the sensitive nature of suicide, communication strategies needed to be mindful of different audiences and ensure the messaging was correct.

Including the voice of those with lived experience meant that lived expertise was utilised but had to be purposeful and empower the lived experience participants. Working in partnership and supporting cultural models of care enabled individuals, families and communities to thrive and the need to continue to focus on equity was paramount in effecting suicide prevention implementation in Canterbury and beyond.

The three findings chapters provide a cross-sectoral view of the positive and challenging effects of the Canterbury earthquakes, mosque attacks and COVID-19 pandemic on the Canterbury population; examine participant's thoughts on suicide and suicide prevention and consider the components of cross-sectoral suicide prevention implementation in Canterbury. The following chapter discusses the implications of these findings, highlighting areas for further study and identifies the components that are influential in successful cross-sectoral suicide prevention implementation.

Chapter Seven: Discussion

This final chapter discusses the data contained in the three findings chapters, considering the implications of the findings for cross-sectoral suicide prevention implementation, post-disaster socio-ecological support and the possibilities for the social work profession to contribute to suicide prevention. Findings are considered for their contribution to policy and practice and indications for further research are also considered.

Ten members of the cross-sectoral Canterbury Suicide Prevention Governance Committee were asked to participate in this study in 2019. The first aim of this research was to examine the socio-ecological impacts of three major disasters in Canterbury on cross-sectoral agencies and their service users, considering the implications of those impacts for suicide prevention. Participants were asked six open questions (Set A) designed to gain insights into the socio-ecological impacts of the Canterbury earthquakes, March 2019 Mosque Attacks and Coronavirus pandemic on participants' service users and staff. This first set of questioning was formulated to examine if participants identified factors that might contribute to a rise in the risk of suicide occurring in Canterbury.

The second aim of this study was to identify and examine the components of cross-sectoral implementation that could combine to create a suicide prevention implementation model that was applicable at a local, regional and national level. A second set of nine questions (Set B) asked participants for their view on the need for suicide prevention, if they considered there was an overall direction for suicide prevention in Canterbury and asked them to describe the suicide prevention needs, activities and training occurring in their agencies to obtain information on their current suicide prevention activities. This set of questioning sought to identify what suicide prevention work has occurred and what could be built on as per the Collective Impact framework. A fourth set of questions (Set C) explored the role of leadership and the requirement for knowledge and expertise in cross-sectoral suicide prevention, the need for resourcing, agency data and data sharing across agencies, how to ensure effective communication and five questions about the benefits and challenges of working cross-collaboratively. Two final questions asked how to ensure all

stakeholders were represented in collaborative suicide prevention and how to include the voice of people with lived experience in cross-sectoral suicide prevention (Set D). All questions from Set B were designed to elicit insights into the effectiveness of the components of the WHO and Collective Impact cross-sectoral suicide prevention frameworks.

Three major themes emerged; the social and psychological impacts of the disasters on people living in Canterbury; suicide and suicide prevention as it affects service users and staff in Canterbury agencies and finally; components of cross-sectoral suicide prevention implementation.

In this discussion chapter the socio-ecological impacts of the disasters in Canterbury, as raised by participants to questions in Set A, are discussed regarding their potential to increase suicide risk and the responses required to mitigate those risks by agencies. The major risks identified are exposure to trauma; an increase in mental illness; suicidal distress and attempts; self-harm; lack of access to timely and appropriate care; deprivation; job-loss and unemployment, alcohol misuse; childhood adversity and relationship breakdown and; media reporting. Mitigation of these risks involve a mix of policy, practice and research and these areas are considered within the differing risks identified.

Secondly, the nine components that emerged as contributing to effective cross-sectoral suicide prevention implementation are considered from data received from participants in response to questions in Set B onwards. These findings are examined for their potential to create a new cross-sectoral collaborative suicide prevention implementation framework and for their use in framing suicide prevention and social work policy, practice and future research. The components identified are; dynamic leadership, resourcing, stakeholder recruitment including indigenous and cultural stakeholders, awareness raising/advocacy, situational analysis, creation of a common agenda, communication, surveillance/monitoring and evaluation.

7.1 Impact of the Canterbury Disasters on Suicide Risk

Areas struck by disasters demonstrate an increase in the risk of suicide (Devitt, 2020; Orui, 2020). The socio-ecological impacts found in this study are discussed within the complex mix of factors that contribute to increased suicide risk. This is not intended to be a comprehensive list of every risk or mitigation since the disasters began but discusses the participant's agency and service users' experience, considering practice opportunities to counter these effects and possibilities for further study.

7.1.a Exposure to Trauma

Exposure to trauma raises anxiety, distress and hopelessness that can lead to suicidal distress (WHO, 2021). Participants reported that the ongoing and various nature of the disasters exposed Cantabrians to chronic stress and trauma, exacerbating previous trauma and increasing the risk of complex trauma and vicarious trauma, as seen in various earlier studies (Beaglehole et al., 2017; Bell et al., 2017). For Cantabrians, these effects were profound, ongoing and long-term. Socio-ecological mitigations at a population, community, family and individual were necessary.

Creating widespread Community Public Health campaigns such as the "5 Ways to Wellbeing" and All Right? (AllRight?, 2019; Calder et al., 2016) built psychological self-management, normalised feelings of fear and anxiety and enabled help-seeking and participants reported that they were helpful in lowering the risk of trauma leading to psychological distress and mental illness. The campaigns have been adopted nation-wide to support the COVID-19 response and funding and tailoring this approach to differing disaster situations to strengthen the population by encouraging self-help should be considered essential in any disaster response, ensuring messaging is refreshed over the course of the recovery period and is culturally appropriate.

Participants noted that communities were strengthened by whānau ora Māori and Pacific programmes, providing families with practical support whilst checking on their mental wellbeing as also found in previous studies (Ardagh et al., 2018; Thornley et al., 2015; Tiatia-Seath, 2014). These programmes continue to provide a COVID-19 response and demonstrate the value of supporting culturally-led community and family programmes effectively to provide solutions they know work for

them. Muslim families were provided with wrap-around support after the mosque attacks, and participants discussed the value of ensuring culturally and ideologically aligned psychological support was in place, illustrating the importance of tailored cultural responses to communities affected by disaster. Successful cultural programmes delivering a whanāu ora approach post-earthquakes have been extended to address the impacts of COVID-19, providing a blueprint to provide care post-disaster.

Generational lived experience to guide younger family members through traumatic events was raised as effective in this current study and would be useful to consider as a possible strategy to be promoted to bolster post-traumatic growth using public health or local programme approaches.

Participants in this study expressed the importance of parental and teacher response in helping children cope psychologically and spoke of the need to support teachers and parents in order to support their students, aligning with findings by Hone et al., (2021) Mooney (2016) and Mutch, (2015). This current study's findings support the creation of Sparklers, (2020) and Leading Lights (2019) which were developed to target parental and teacher support, illustrating the ability of web-based support to aid post-disaster recovery and the cross-sectoral efforts of Health and Education. These family programmes have national and international applicability in supporting young psyches to build socio-emotional skills, a key effective suicide prevention intervention (WHO, 2021) and one that could be offered proactively or adapted quickly to suit differing disaster contexts.

Intentionally supporting children transitioning into adolescence at the time of the Canterbury earthquakes was not identified by participants who spoke of their concern at the younger age of adolescents presenting with suicidal distress in 2019. An individual approach to providing psychological support in intermediate and high schools in Aotearoa New Zealand prevented a standardised psychological response to this cohort who navigated six years of damaged and relocated high schools and sporting facilities, spending large periods of time alone at home, vulnerable to continuing aftershocks. A study by Pine et al., (2015), raised the scarcity of research into this age group post-disaster, finding recovery was supported by learning about earthquakes,

how to keep safe, divulging experiences and focusing on positive outcomes of the earthquakes. Adamson (2013), suggested disaster education should be provided proactively for populations to enable knowledge and mastery of skills. This cohort have now been affected by COVID-19 which for some has challenged their experience of tertiary education, working life, sporting and arts opportunities and their ability to travel overseas. Recent studies regarding the effect of COVID-19 on youth mental health are concerning (Devitt, 2020; Menzies et al., 2020; Samji et al., 2022) pointing to a rise in distress that could increase suicidality. This may need to be addressed cross-sectorally through increasing access to services that support youth, however a study by Scarf et al., (2022) provides optimism that once restrictions ease young people's wellbeing improves to baseline quickly. Further study on this Canterbury cohort, now aged in their twenties, may determine the level of anxiety remaining in the group and whether targeted support or screening is required. It also raises the question of providing adequate access to mental health supports in high schools normally and in disasters and whether off-campus options would prove more popular, a question that could be put to this cohort.

Another cohort identified as vulnerable in the current study by two participants were middle-aged women exhibiting post-traumatic stress post-disaster when threatened by a further event. This finding showed the importance of considering options to counter cumulative trauma such as regular screening questions for mental health via general practitioners, especially in periods of increased stress or threat. Targeted messages that prompt women from this age cohort in disaster areas to consider their own mental health may be an option and further study may assist intervention options.

The impact of compassion fatigue from family and friends outside of Canterbury, wondering why psychological recovery was taking so long, was raised by participants in the current study. It seems pertinent therefore to consider this effect on individuals when their support systems tire in longer disasters and how this effect might be countered. Identifying and supporting people over a longer period who are somewhat isolated in the community, and who rely on family support outside

a disaster area, might mitigate this effect. Isolated people are often assisted in the beginning of disasters but over time that support can wane.

Chronic stress on frontline staff was a concern raised by all the participants in this current study. Overseas studies on resilience, burnout and wellbeing in frontline workers dealing with COVID-19 (Sumner & Kinsella, 2021) found personal factors of the meaning of life and resilient coping styles led to higher rates of resilience, wellbeing and lower burnout, which may bode well for Cantabrian workers who have honed their coping strategies over the last ten years. However, frontline staff in Canterbury have been in emergency mode for over ten years now with little respite. Supports such as the All Right? digital workplace wellbeing toolkit are accessible (All Right?, 2022) however, messaging to access help if stressed at work loses its potency over longer periods of time and perhaps fresh incentives, such as gifting time off or using accumulated sick leave as annual leave to support workplace wellbeing across sectors, needs to occur in Canterbury.

Participants said that ensuring Canterbury frontline workers exposed to suicide attempts and deaths are supported psychologically was essential, as many were exposed to traumatic deaths in the disasters. These findings align with recommendations in *Every Life Matters-He Tapu te Oranga o ia Tangata: Suicide Prevention Strategy 2019-2029 and Suicide Prevention Action Plan 2019 – 2024 for Aotearoa New Zealand* (MOH, 2019) and various reports (CASA, 2020; Kerdemelidis & Reid, 2019; WHO, 2021). Agencies have individual policies and procedures addressing exposure to trauma but a cross-sectoral approach to vicarious trauma may identify best practice responses and could be prioritised locally or nationally through organisations such as Clinical Advisory Services Aotearoa (CASA) or the Mental Health Foundation.

Participants in this study illustrated how the disasters in Canterbury increased the risk of trauma across the population, increasing the risk for suicide. This rise was mitigated to some extent by the rapid commissioning of reports to identify likely psychological consequences and recovery strategies from previous disasters (Gluckman, 2011; Kerdemelidis & Reid, 2019; MOH 2019). These reports were an important first step in recovery, utilised to harness support and resources. Multiple

programmes and cross-sectoral services provided psychological support and promoted self-efficacy, allowing Cantabrians to build back resilience (Beaglehole et al., 2017; Hone et al., 2021; Mooney, 2016; Pine et al., 2015; Smith, 2017) whilst equipping them with socio-emotional skills they can use throughout life. The value of cross-sectoral stakeholders working together to create, fund and deliver services was evidenced by the multiple innovative programmes established to mitigate trauma and distress.

Key points raised in this current study to consider combatting fear, anxiety as trauma from a policy and cross-sectoral and social work practice perspective were the efficacy of public health campaigns to provide psychological tools for self-help; the importance of ensuring tailored cultural interventions and community programmes post disaster and; the need to support parental and teacher responses. Although not raised by participants, the value of commissioning reports post-disaster to aid in targeting support and resources was endorsed owing to the outcomes they produced. Further study was indicated on how best to support middle-age women in long disaster periods, young people transitioning to adolescence, high school mental health options, utilising generational expertise in disasters and combatting compassion fatigue in ongoing disasters. Considering how to effectively support workforce wellbeing, especially those exposed to trauma and suicide, may benefit from collaborative endeavours to identify best practice.

7.1.b Increase in Mental Illness

Participants in this study expressed difficulty in accessing support for their vulnerable clients after the disasters commenced in 2010. Public health messaging in Canterbury encouraging people to access services if they were struggling with their mental health post-disaster contributed to a rise in referrals to specialist mental health services in Canterbury since 2011 that never abated (CDHB, 2018). This rise is a positive sign that people are taking care of their mental health but conversely one that has continued to challenge timely access to more specialist care. Trauma exacerbates mental illness and the rise in referrals was expected (Gluckman, 2011) however despite increasing mental health services at community, primary and specialist levels across sectors, (MOH, 2019), long

waiting lists abound (New Zealand Mental Health and Wellbeing Commission, 2022). There is a

possibility that young Cantabrians are caught between the vestiges of post-disaster trauma and the

rise in mental distress being evidenced internationally (Menzies et al., 2020), and further study

might identify ways in which to reach and strengthen this group. For social workers in Aotearoa New

Zealand, gaining competency and skills in identifying and responding to mental illness, including

training in CBT, would increase access and options for a mental health system that is under pressure.

7.1.c Suicidal Distress and Suicide Attempts

Previous suicide attempts are a strong risk factor for suicide (Beautrais, 2001; WHO, 2021)

and participants in the current study expressed concern at the higher numbers of young teenagers

attempting suicide and exhibiting distress in Canterbury. This may be attributable to post-traumatic

stress, Cantabrians presenting later, or a perception that to access services people have to present

at a higher level of distress. The current study found hesitancy in referring people with distress due

to the long waiting lists, stigma around suicide attempts and a perceived lack of follow up. Further

analysis of presentations across all age groups, increasing cross-sectoral access and considering co-

design opportunities to tailor support options that work for people in mental distress, may be

helpful in seeking solutions. Increasing access to services that support youth mental health in

Canterbury, as indicated by Menzies et al., (2020) and the Mental Health Commission (2022) is a

high priority.

Two participants said their agencies increased training for their staff in talking therapies to assist

people at risk, finding this valuable in lowering distress (Te Pou; 2021; WHO, 2021), and another tool

to consider, post disaster. Further study into the comparatively lower rates of young Māori deaths

from suicide in Canterbury (although not raised by participants but identified in the suicide data set

obtained for this current study) was indicated to identify whether successful practice or programmes

providing care might be replicable nationally. In Canterbury, agencies such as Etu Pasifika and

Tangata Atamotu Trust work to reduce stigma and support wellbeing amongst the Pasifika

population and participants spoke of their aim to provide mental wellbeing support in every health exchange. Pacific rates of suicide remain low in Canterbury (MOH, 2021).

An observation by a participant that elderly people in Canterbury may be passively attempting suicide by either not taking their medication, or by taking too much, would be useful to identify better practice options, supporting calls for research into the mental health of people over 65 years (Cunningham et al., 2019). As social workers are a key workforce in Older Persons Health, this observation would be a good practice consideration to rely to that workforce especially as the recently introduced End of Life Choice Act 2019 (MOH, 2021), supporting assisted dying, has the potential to increase suicides in the older age group. The current study also highlighted the need for cross-sectoral representation across age groups as the focus on suicide prevention is often on youth suicide but elderly suicide rates are increasing.

7.1.d Self-harm

This current study found that increased self-harm was noticeable in schools and access to training for education and health professionals on self-harm as a suicide indicator was requested by participants. The high number of hospitalisations for self-harm by youth in Canterbury (MOH, 2018) supports the concern raised in this current study. As self-harm increases the risk of suicide (Beautrais, 2001; Gaines, 2020; WHO; 2021), the provision of targeted suicide prevention training is gaining momentum in Canterbury with a new suicide prevention website set to deliver information on cross-sectoral training opportunities (including module learning and virtually). This direction is one that could be supported nationally as suggested previously (Pirkis et al., 2020) and an important element to consider in social work training to increase access to care.

7.1.e Lack of access to Timely and Appropriate Care

Accessing timely and appropriate psychological care decreases the risk of suicide (Menzies et al., 2020; WHO, 2021) and as discussed this has been challenged in Canterbury due to high demand. Participants said difficulty in gaining early and appropriate care for youth with complex issues increased their complexity further, affecting recovery. As trauma is a feature in complex

presentations, this current study suggested the need for an increase in trauma-informed interventions. This requires education and training that could be funded and delivered cross-sectorally, either virtually or in groups, utilising existing resources. This suggestion to increase trauma -informed care also has implications for social work skills training.

Having someone safe to talk to was raised by study participants as being protective, perhaps explaining the increase in calls to helplines in Aotearoa New Zealand and continued requests for increased peer and whanau services (MOH, 2019). Providing skills to people within families and communities to be that safe person aligns with suicide prevention training (Le Va, 2020), supporting universal individual skill development as a protective approach. A bold policy approach could be to mandate training in suicide prevention skills for all government employees, which would increase awareness and access to help significantly, such as the Zero Suicide Alliance approach taken by the Mersey Care NHS Trust in England (Wasserman et al., 2022). Social Workers could be integral in facilitating this approach.

Findings from the current study suggested stigma around suicide and mental illness at a personal and professional level was still preventing people from accessing services. Participants said stigma was also perpetuated by cultural and generational beliefs, despite increased awareness around suicide and mental illness in Canterbury. Utilising strategies such as making meaningful connections with church and community leaders and marginalised groups to build awareness and normalise help-seeking would assist in reducing this stigma at the community or mesosystem level and social workers could assist this process. Requests for workplace suicide prevention training have also increased which is encouraging. Sustained cross-sectoral collaboration to build suicide prevention awareness across communities sends a powerful message of hope that can reduce barriers and support the reduction in stigma, as discussed later in this chapter.

7.1.f Deprivation and Loss

Deprivation is a strong indicator for suicide risk (Chiang et al., 2021, Gaines, 2020; MOH, 2019; Stack, 2021; WHO, 2021) and study participants raised the increase in deprivation wrought by

damaged homes, relocating households, schools and workplaces, as seen in previous studies (CDHB, 2016; Du, 2022; Lock et al., 2012; Thornley et al., 2015). Study participants said these risks were mitigated somewhat by Māori whānau ora programmes providing food and support for the most vulnerable at the community level, an effective cultural and socio-ecological approach. This work has expanded in the COVID-19 response and given Māori and Pacific agencies mandate and ability to offer sustained support to families including budgeting and housing, which is a positive outcome.

Participants said disparity in the time taken to settle property insurance claims and the outcomes achieved by homeowners were significantly stressful, these findings adding to Du, (2022), Lock et al., (2012) and Orui (2020) amongst others. These stressors had potential to incur hopelessness and an inability to see a way forward, a significant factor in suicides (Joiner & Silva, 2021). Although the claims process has been revised to provide a faster result (ICNZ, 2021), there are still unresolved claims and unrepaired homes in Canterbury in 2022 and stressed homeowners. Psychological support was provided to people going through the claims process as a mitigating factor however advocacy is required to ensure government policy supports people to rebuild their homes quickly without prolonged uncertainty and sustained stress. The skills that social workers possess in advocating for their clients can support this process at the policy and practice level in dealing with disasters of this scale.

Participants noted that ensuring school-aged children gained access to electronic devices and wifi to continue their education throughout COVID-19 lockdowns was a positive initiative to address deprivation and support equity. This highlights the innovation and positive outcomes that adverse events can create and hopefully will be extended beyond the lockdown era.

7.1.g Job-loss and Unemployment

Job-loss and unemployment increase the risk of suicide (Chang et al., 2018; Keefe et al., 2002, Milner et al., 2014) and participants noted there was job-loss due to unemployment post-earthquake however the "re-build" of Christchurch created new opportunities for employment, thus

it appeared this risk was short-term. Mosque attack survivors also faced unemployment due to injuries sustained in the attack, but this factor was not raised by participants in this study.

The economic effects on household incomes caused by COVID-19 related job losses owing to businesses retrenching or casual work ceasing, was very concerning to participants in 2020. One participant observed players ceasing team sports to work extra shifts or working overtime to financially support local and extended family in the Pacific Islands. Dé & Jackson-Becarra (2021) found, despite predictions to the contrary, remittances increased to Samoa as family in Aotearoa New Zealand supported their loved ones overseas. Concern over the economic effects of COVID-19 are still relevant however, whether ultimately the economic effects of the disasters have increased suicide risk was not discernible from this study. For cross-sectoral suicide prevention and social work, it is therefore important to provide staff with skills that detect the psychological impact of unemployment or business loss and that can support jobseeker wellbeing.

7.1.h Alcohol Misuse.

Participants commented on the rise in alcohol consumption and hazardous drinking in Canterbury that occurred post-earthquakes and which has also been identified in COVID lockdowns (Every-Palmer et al., 2020). Alcohol is a notable risk factor for suicide (Pirkis et al., 2020; Witt & Lubman, 2018) and participants thought regulating access and alcohol use offered an opportunity for preventable intervention. There appeared to be no direct attempts to mitigate increasing consumption on a strategic level, post-disasters, although encouraging healthy alternatives to lower stress (All Right, 2020) was helpful. Due to the loss of numerous bars in the central city, new liquor licences were issued in neighbourhoods by the local council and clusters of high-density outlets are now operating (Breetzke & Andresen, 2018) which is a consideration post-disaster as the prevalence of outlets can increase the risk for suicide. This raises the importance of having both council and health stakeholders on cross-sectoral suicide prevention committees that can consider health risks when rebuilding post-disasters. Boosting skills in social workers to work with people struggling with alcohol and addiction should be considered especially post-disaster.

7.1.i Childhood Adversity and Relationship Breakdown

An increase in childhood adversity was noted by study participants in education, health, child protection services and Maori and Pacific agencies. Participants in education spoke of the detrimental effect on children of dealing with marital breakdowns post-earthquake and as discussed earlier, targeted support for young people who had experienced previous trauma, was sought to prevent complex trauma. Participants reported many children affected by the mosque attacks, especially Muslim children, experienced extreme adversity and loss and have received intensive support since the attacks. Participants suggested that an increase in trauma-informed care was required to support young people in Canterbury.

This current study found that the isolation caused by COVID-19 also heightened adversity for some children as they were unable to attend school, which for some children is their safe place, raising the need for innovative ways to support vulnerable children and their families through prolonged lockdowns. Participants said that access arrangements were cancelled for children due to COVID-19 lockdowns which could also affect wellbeing. Participants expressed hope that the programmes and services provided to support socio-emotional health in Canterbury may have mitigated the impacts of the three disasters to some extent. Cross-sectoral approaches to strengthening child and youth services in Canterbury paved the way for innovative programs such as Mana Ake but study into the long-term effects of adversity caused by disaster on Canterbury children may reveal other important policy and practice considerations. These findings highlight the need for social workers supporting vulnerable children to access ongoing education in trauma-informed care in order to detect and support vulnerable children post-disaster. This ongoing education and training support would also support suicide prevention.

As found by this current study, increased adversity heightened relationship and marital difficulties. Relationship difficulties increase suicide risk (Pirkis et al., 2020) and may have resulted in people seeking mental health solutions for relationship distress in Canterbury. The provision of a national relationship service in Aotearoa New Zealand such as the former Relationships Aotearoa,

should be considered as to whether it might lower crisis mental health presentations and suicide risk.

7.1.j Media Reporting

Responsible media reporting is one of the four key effective suicide prevention interventions of the WHO framework (WHO, 2021) and the participants said the continuous media citing of the poor state of mental health and wellbeing in Canterbury caused alarm amongst Cantabrians. Research participants expressed concern that this media coverage potentially deterred people from help-seeking and was demoralising for mental health staff working intensively to accommodate increases in workload. Participants also said that media speculation on an increase in suicides was also unhelpful, untrue and possibly increased risk. Sustained content and coverage on the disasters and on their anniversaries, also held potential to traumatise people vicariously and increase anxiety, these findings supporting previous concerns (MOH, 2019; Kerdemelidis & Reid, 2019; Oliver et al., 2020).

Media coverage on the COVID-19 pandemic has been relentless and one participant said that this increased the potential for anxiety due to the volume of reporting. Community and Public Health messaging suggesting people limit their exposure to disaster coverage was provided after the earthquakes and mosque attacks and through the pandemic, attempting to discourage people from becoming addicted to negative content (All Right, 2020), an important approach in attempting to safeguard psychological wellbeing.

These findings suggest that working with the media to reduce the volume of negative content post-disasters and to balance coverage with stories of hope that are future-focused could assist with disaster recovery and support suicide prevention. Participants suggested that, although news media can be negative, an active media response that supports mental health post-disaster such as All Right? can be also highly effective.

7.1.k Impact of the Canterbury Disasters on Suicide Risks - Conclusion

Participants were asked to discuss the socio-ecological impacts of the Canterbury earthquakes, March 2019 Mosque Attacks and Coronavirus pandemic on participants' service users and staff to identify if those impacts contributed to a rise in the risk of suicide occurring in Canterbury. When framed by known suicide risk factors, this current study found an increase in suicide risk occurred in Canterbury post-disasters. This current study found these risks were mitigated by public health campaigns that built self-management for wellbeing, whanau ora programmes that provided family support, tailored cultural responses to support recovery, generational support for recovery post-disaster, teacher and parental support to assist children and equity approaches that supported education at home for school students. Further study was indicated on the effects of trauma on young adolescents and middle-aged women in Canterbury. Further work was required to identify strategies to combat compassion fatigue and to support workplace wellbeing including vicarious trauma. Ongoing education for social workers on trauma-informed care, alcohol and drug addictions and self-harm had the potential to mitigate distress and mandating suicide prevention skills training for all government departments might also support the reduction of suicide.

7.2 Components of Cross-Sectoral Suicide Prevention Implementation

The second aim of this study was to examine the effectiveness of components of cross-sectoral suicide prevention implementation to consider frameworks to support this undertaking.

As outlined in 7.0, participants were asked to consider the need for suicide prevention activities, the direction for suicide prevention in Canterbury and the suicide prevention needs, activities and training occurring in their agencies to ascertain what activities could be built on as per the Collective Impact framework. Interview questions also explored the role of leadership, requirement for knowledge and expertise in cross-sectoral suicide prevention, resourcing, agency data and data sharing across agencies, effective communication and the benefits and challenges of working cross-sectorally in suicide prevention. Participants were also asked how to ensure all

stakeholders were represented in collaborative suicide prevention, including the voice of people with lived experience. These questions were designed to elicit insights into the effectiveness of the components of the WHO and Collective Impact cross-sectoral suicide prevention frameworks.

Findings from this research into the work of the cross-sectoral Canterbury Suicide Prevention Governance Committee identified effective components from both the WHO (WHO, 2012; WHO 2021) frameworks and the Collective Impact model (Hanleybrown et al., 2012). The examination of these components subsequently led to the development of a hybrid Collective Impact Suicide Prevention Framework that is applicable from a national level to regional and local levels (Refer to Table 2).

Collective Impact had components that aligned with the WHO framework but also had additional mechanisms supporting complexity that might add to suicide prevention implementation. This current study confirmed the importance of enabling the right leadership and influential partners and resourcing a "backbone" organisation (Hanleybrown et al., 2012) to assist cross-sectoral processes including mobilising funding, facilitating the overall strategic direction, providing continuous communication and managing data collection and analysis. The backbone agency in suicide prevention often defaults to the health sector. The current study found there is an imperative to ensure dynamic leadership and resourcing to provide the necessary functions of supporting a cross-sectoral endeavour. Findings from this research emphasise that dynamic leadership and resourcing for collaborative cross sector suicide prevention need to occur at national, regional and local levels if such initiatives are to be effective. Without these elements, participants reported that primary sectoral competing interests will stymie efforts for effective collaboration in the suicide prevention space. In 2022 this is pertinent as Aotearoa New Zealand transitions from twenty DHBs to four regions (DPMC, 2022). To commit to effective suicide prevention in Aotearoa New Zealand, funding and leadership training to support national, regional and local (perhaps locality aligned) cross-sectoral suicide prevention is recommended.

The table below outlines the components and functions proposed for utilising a Collective
Impact Suicide Prevention Framework as a result of this current research. Each component is
discussed regarding its merits and challenges in supporting suicide prevention.

Table 2. Collective Impact Suicide Prevention Framework	
Components **BF = Backbone Function**	**Study Findings**
1. Influential champion who possesses dynamic leadership	• Dynamic leadership facilitates cross-sectoral leaders and does not seek to dominate. • Leadership builds trusting relationships that are open and flexible. • Leadership ensures Te Tiriti partnership - consider permanent Māori co-chair
2. Ensure Resourcing **BF** Mobilising Funding	• Assess and ensure adequate financial resources • Intentional resourcing provides sustainability, legitimacy and mandate. • Cross-sectoral time commitment is resourced and funding available for collaborative activities.
3.Identify Stakeholders	• Influential cross-sectoral leaders (stakeholders) are identified including those with lived experience and cultural leaders. • Process to support voice of lived experience is embedded. • Age, gender and culture of community is represented. • Consider rotation of cross-sectoral chair and cultural co-chair. • Community and operational expertise (bottom-up) informs top down strategic plans.
4. Cross-sectoral awareness-raising and advocacy	• Constant cross-sectoral focus on suicide prevention builds awareness and commitment from all sectors. • Professional, generational and cultural stigma addressed through awareness-raising. • Cross-sectoral knowledge shared, supported by dynamic leadership. • Storytelling encouraged to support advocacy and impact.
5. Situational Analysis	• Mapping of cross-sectoral suicide prevention activities to identify current activity, resourcing, duplication and gaps. • Risk and protective factors identified.
6. Creation of a common agenda **BF** Overall strategic direction	• Cross-sectoral action plan created using mutually reinforcing activities. • Plan incorporates values, collective vision and equity framework. • Clear objectives are visible and build on work already done.

7. Continuous cross-sectoral communication **BF** Facilitating cross-sectoral and public communication	• Cross-sectoral communication supports dialogue, process, activities, aims and implementation, feedback and motivation. • Communication occurs at all levels. • Cross-sectoral actions and outcomes communicated to the wider community, community engagement is coordinated. • Differing media platforms to reach identified communities are utilised. • Impact of content and messaging is considered.
8. Cross-sectoral surveillance and monitoring **BF** Managing data collection	• Current cross-sectoral data identified and collated. • Data gaps identified and data systems established. • Cross-sectoral data measurement established, aided by collective goals.
9. Evaluation **BF** Managing data analysis	• Continuous evaluation of data and trends communicated to inform cross-sectoral implementation. • Evaluation of actions and outcomes in cross-sectoral agency plans communicated regularly.

7.2.a Dynamic Leadership

In discussing Collective Impact, Hanleybrown et al., (2012, p.3) said "we have consistently seen the importance of dynamic leadership in catalysing and sustaining collective impact efforts". The importance of dynamic leadership was heavily emphasised by participants in the current study. Cross-sectoral leaders had to share knowledge and resources and be open to learning from each other. This required leaders who could facilitate other leaders to listen to each other, engendering respect and supporting innovation. Conversely, participants said that inflexible leaders appeared to threaten progress. Enabling a shared vision, agreeing on values and creating effective relationships were identified by participants as integral to systemic change and they said it assisted in providing rapid programme implementation when it was required post-disaster as also noted in previous literature (Hone et al., 2021; Thornley, 2015). Participants saw potential for dynamic cross-sectoral leaders within the collaboration to promote the direction of suicide prevention, working together to identify actions and intended outcomes, inspiring and supporting others to participate.

Understanding the "social processes involved in decision making" (Reifels et al., 2022, p.4) requires cultural leadership to ensure representation across ethnicities, ages, genders and areas, a process acknowledged by Lawson-Te Aho & Liu (2010) and the New Zealand Mental Health and Wellbeing Commission [NZMHWC] (2022). Current study participants suggested Ngāi Tahu[19] should co-lead the CSPGC to provide Māori leadership, increasing effectiveness and equity of an indigenous cultural response. Rotating the cross-sectoral chairperson, but ensuring a permanent Māori co-chair, would strengthen suicide prevention in Canterbury according to findings in this current study, providing a partnership approach and aligning with the principles of Te Tiriti and 2022 NZ health changes (Health and Disability System Review, 2020). Participants expressed that addressing the harms of colonialism by achieving equity in all outcomes would go some way to strengthening Māori mental health, lowering distress and suicide rates. Such developments require instigating a process to support the appointment of Māori leaders to work in suicide prevention and targeted actions.

As the new Māori Health Authority is implemented in Aotearoa New Zealand in 2022 where and how the funding and provision of Maori suicide prevention programmes are provided may change, allowing greater potential for a whole of system response. Cross-sectorally, leaders who have the ability to provide influence, absorb complexity and understand the gains possible by working collaboratively hold the key to effective suicide prevention implementation.

7.2.b Resourcing

Dedicated funding for suicide prevention is scarce (WHO, 2021). The provision of time and money to support cross-sectoral suicide prevention were identified most often in the current study as resources needed to prompt effective work in this field. As discussed, the current study supported intentional resourcing of the lead agency in a suicide prevention cross-sectoral group, aligning with a CI pre-condition approach to ensuring backbone funding (Hanleybrown et al., 2012; Kania & Kramer, 2012). Participants said other agencies involved with the collective would require resourcing too to

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[19] Māori tribe of the South Island

continue this work, otherwise competing priorities could derail invested input into the suicide prevention space. It was evident from the current study that cross-sectoral involvement provided access to a bigger pool of resources, conversely gaps in knowledge and resources occurred if agencies were not represented on the collective. Findings suggested competitive funding models for suicide prevention activities were unhelpful.

Suicide prevention funding had to target equity in activities to counter the effects of colonisation (Durie et al., 2017; Hatcher, 2016; Lawson-Te Aho & Liu, 2010; WHO, 2021), as reflected in the high rates of Māori suicide in Aotearoa New Zealand. The intentional inclusion of equity as a goal in suicide prevention plans was supported by this study, a national goal (NZMHC, 2022) and a goal that is pertinent for other nations.

This current study found that cross-sectoral suicide prevention activities could reduce costs by maximising community resources and tapping into the natural strengths of communities and families. Findings suggested focusing on community events and wellbeing and delivering skills training that provided simple steps to enable help-seeking and increased access to assistance. These findings supported the efforts of both suicide prevention coordinators and whānau ora providers, however intentional funding for these activities was required.

The current study confirmed that intentional funding of cross-sectoral suicide prevention committees had to occur nationally to provide an immediate mandate for agency involvement and long-term sustainability. One national cross-sectoral committee cannot provide the nuanced local knowledge required to identify and implement effective actions. Ensuring resourcing to support regional and local cross-sectoral suicide prevention committees would grant the mandate to undertake this work (as found in this study) and allow immediate cross-sectoral relationship building and collaboration to commence. The current study found the collective impact of working collaboratively across agencies could reduce duplication of effort and services, identify gaps and foster faster learning and progress. Collective resources could be harnessed and used to produce faster, more effective and ultimately cost-effective, outcomes.

7.2.c Identify Stakeholders

Ensuring all stakeholders were represented was crucial and agreement on group membership was supported by all participants, findings supporting the WHO (2021) and CI approach (Mayan et al., 2020). Some agencies only realised their ability to effect suicide prevention when they had become part of a cross-sectoral group, as suicide prevention was not their core business. Sadly, the current study found it may have taken a sentinel event within an agency to cement interest and commitment. A mix of management, operational knowledge and lived experience was ideal according to participants and when effective, cross-sectoral groups could share resources to achieve actions and contribute to national influence.

This study found that stakeholders with influence created greater opportunities to address challenges and demonstrated that all agencies had a part to play in suicide prevention. Findings suggested the size of the cross-sectoral group was important as large groups could stymie progress by needing longer consultation periods and time to agree on actions whereas too small a group could be ineffectual and not representative of collective interests. Identifying stakeholders was aided by ensuring diversity and defining the purpose and function of the cross-sectoral group according to participants, entailing clarity on whether the group was strategic, operational or a mix of both. The current study found rotating the chairperson addressed professional stigma supporting suicide prevention as being a health domain only, cementing the value of cross-sectoral collaboration.

People with lived experience hold a unique expertise in suicide prevention (Gaines, 2020; Reifels et al., 2022; Wayland et al., 2020) and this current research identified that clear processes, defined purpose and outcomes and specific support were required to sustain the inclusion of lived experience in cross-sectoral suicide prevention. Participants said that narratives from people with lived experience assisted in targeting prevention activities, lending support to studies finding they should be supported in telling their stories (Wayland et al., 2020; WHO, 2021). This study found that facilitating lived experience diversity in age, gender and culture was important in understanding

what preventative efforts might make a difference. Funding participation from people with lived experience was suggested by this current study to counter views that lived experience participation is a voluntary or additional activity. These findings align with the study of lived experience participants in Australia (Wayland et al., 2020), who described varying levels of education/training/support for suicide prevention involvement. Funding individuals who contribute to the collective in this way would demonstrate the commitment to include input from these stakeholders in suicide prevention planning and operations.

Providing lived experience to preventative efforts can be empowering, however participants in the current research advised caution in case the content of collective activities was re-traumatising. Allowing time to have lapsed after a bereavement or suicide attempt was essential to safeguard lived experience stakeholders' attendance and emotional health according to this current study. If not supported, lived experience participants might impede or paralyse progress, insights aligning with previous literature (Wayland et al., 2020). The current study suggested further work was required to support the authentic inclusion and needs of people with lived experience participating in suicide prevention, raising important practice considerations that could strengthen cross-sectoral suicide prevention stakeholder engagement and participation. These considerations might include ensuring psychological support was available and processes were in place for onboarding as well as finishing as members of a committee as well as ensuring renumeration.

Cultural partnership is essential in the Aotearoa New Zealand setting necessitating Māori co-leadership and representation as tangata whenua and the inclusion of Pacific partners. What was not found in this study, but requires intentional focus, is the inclusion of Asian stakeholders in suicide prevention in Canterbury, particularly the Chinese population who comprise the majority of the 10 percent of Asian people living in Canterbury but who are often unrepresented in suicide prevention and mental health.

7.2.d Awareness Raising

Cross-sectoral leadership requires the ability to build effective sector relationships, (WHO, 2012) and the current study found participating in the cross-sectoral committee enabled those relationships, fostering openness and understanding and building trust and respect. Meeting protocol, including opening and closing with Māori karakia or prayer, supported relationship building and assisted sustainability. Effective relationships supported professional wellbeing among stakeholders in the CSPGC, which was an unexpected finding. Suicide prevention can be an impactful endeavour and as the agency leader responsible for the health and wellbeing of staff and service users in their agencies, having the support of others with the same responsibility was informative, affirming and provided hope. This finding could be promoted as another positive aspect of working cross-sectorally.

Findings in this study also contributed to literature suggesting participation cut across silos, providing access to informed expertise that could provide insights cross-sectorally, affirming a course of direction or suggesting innovation (Reifels et al., 2022; WHO, 2021).

Gaining expertise and knowledge in suicide prevention to increase awareness was valued cross-sectorally but not seen as essential as the ability to seek out expertise in others by participants. Findings emphasised that knowledge from the management, policy and funding areas had to be informed by expertise across operational and community spheres, to provide effective cross-sectoral actions. This suggests the need for effective and ongoing consultation processes and is considered further when discussing communication but is an important practice and process point.

This current study found that accessing community expertise and knowledge could harness resources and although community expertise was not considered explicitly in the WHO 2021 suicide prevention implementation guide (WHO, 2021), an earlier 2018 publication (WHO, 2018d) focused solely on raising awareness through community engagement and harnessing local knowledge to effect change, which is a key process in preventing suicides. Coordinating suicide prevention training opportunities across agencies in Canterbury held potential as a capacity-building endeavour,

according to this study, contributing to practice opportunities for non-professionals and professionals such as social workers.

7.2.e Situational Analysis

Effective cross-sectoral suicide prevention as seen in the current study collaboratively identified service gaps and opportunities to address those gaps. Agencies collectively assumed the risk of other agencies in working collaboratively but found there was a greater risk assumed by not collaborating, a finding supporting the WHO comment that "Multi-sectoral collaboration fosters transparency and strengthens the accountability of the partners involved" (WHO, 2021, p.15). Leveraging off resources already available and collectively utilising the wisdom of other agencies was highlighted in this study, hastening learning processes and assisting the building of systemic change. These findings supported the WHO (2021) component of undertaking a situational analysis and the CI approach of building on work already done (Hanleybrown et al., 2012). Mapping suicide prevention activities is a necessary step in cross-sectoral suicide prevention and these findings illustrated the need to undertake this work, but resourcing for this to occur is required.

7.2.f Creation of a Common Agenda

A "multisectoral approach relies on a vision for collaboration" (WHO, 2021, p.x,) and this study found the creation of a strategic cross-sectoral suicide prevention action plan allowed stakeholders to understand the overall strategy and their actions within it, cementing engagement if the plan was relatable and accessible. Participants indicated that signing up to a charter would cement cross-sectoral commitment and accountability but would also require agencies to apportion time for participation and resources to effect actions. Some participants expressed a desire for clear actions, targets and timeframes, accompanied by regular reporting, to support the plan, whilst others thought the collective needed leeway in process to be responsive to changing need.

Findings indicated a cross-sectoral plan strengthened suicide prevention awareness, reduced stigma and discrimination and built cross-sectoral hope in an area that could seem overwhelming, providing public confidence that work to prevent suicide was occurring.

Actions supporting cultural approaches and equity were deemed essential by participants who saw this being achieved by ensuring cultural leadership and enabling processes to capture the voice of people working operationally and those with lived experience. Opportunities to provide input into the plan had to be widely available according to participants, requiring effective consultation, an important practice consideration. This study current found that creating a common agenda or plan was contingent on listening to communities, co-designing the services required, flexibly providing service provision and by offering the right training and knowledge to enable communities to create their own programmes, all processes and practice points requiring attention.

Collaboration in suicide prevention was occurring at a systemic, interagency and practitioner level in Canterbury because of the strength of relationships, according to this study. Collaboration was effecting change in schools and the postvention area in Canterbury and participants saw potential in collaborating to deliver suicide prevention training.

Creating District Health Board cross-sectoral plans are a government aim but there is no specified resourcing for this. The current study illustrates the need for a resourced backbone agency that can support the consultation process, writing of plans and monitoring of actions, ensuring cultural and stakeholder processes are optimal and inclusive.

7.2.g Communication

Study findings emphasised that sustaining cross-sectoral suicide prevention required clear ongoing communication amongst partners to generate ongoing momentum. Use of diverse communication methods such as emails, in-person meetings and forums were identified as effective. COVID-19 had necessitated more online meetings which assisted attendance, as they maximised participant time, reducing competing agency priorities. Participants said that ensuring meeting attendance was purposeful was also critical to the sound functioning of the collective with the use of agendas to encourage attendance. Both formal and informal communication was valued, however this study found that informal approaches could circumvent process, undermining transparency, a point that could be addressed in committee terms of reference. The current study confirmed both

formal and informal communication allowed agencies to learn from each other and quickly adapt, using other agencies experiences. Effective communication also meant agencies were less likely to duplicate effort and could build on work already underway, all features of CI (Hanleybrown et al., 2012).

Storytelling and using data could promote the need for services and support as well as communicate progress in suicide prevention implementation and this study suggested this assisted continued motivation but required leadership and facilitation. Given the impactful nature of discussing suicide, awareness and thought by agency members was required prior to delivering interpersonal and public communication and further findings confirmed that differing media platforms and the right language was required to reach all ages and communities. Debate as to whether promoting suicide prevention normalised suicide was evident in this study with some participants preferring wellbeing promotion only. Others thought promoting safe conversations about significant distress was an effective tool in preventing suicide in their agencies. Having one trusted person to be the face of the media and provide cross-sectoral information was also suggested.

This current study found that creation of the CSPGC had enabled dialogue and continued to facilitate discussion, findings that supported the Collective Impact component of ensuring continuous communication using backbone functions to facilitate dialogue and handle communications (Hanleybrown et al., 2012). This function requires resourcing as cross-sectoral committee facilitation is time-intensive and is a key component to enabling progress and sustainability. Findings also suggested the need for cross-sectoral communication guidelines to enable safe and effective communication to the community and these could be embedded in a committee Terms of Reference or written as a separate policy.

7.2.h Surveillance and Monitoring

Data collection activities such as collating and sharing cross-sectoral data were valuable and essential but participants said caution was required as to the privacy aspects of small sets of suicide

data and the intentional use of this data. Participants supported increased cross-sectoral use of data in Canterbury and saw value in contributing the information they held to build a better picture of what was occurring to reduce suicide and suicide attempts. Postvention responses rely on inter-agency communication and information, especially when identifying vulnerable people after a death in the community (CASA, 2020). The current study findings add weight to the creation of a national approach to surveillance (data monitoring) which is currently being formulated.

7.2.i Evaluation

Findings in this current study revealed the ability of cross-sectoral suicide prevention committees to support the wellbeing of fellow managers who were responsible for the mental health and wellbeing of their service users and staff. Indigenous Māori and Pacific partnership and participation in cross-sectoral suicide prevention in Aotearoa New Zealand was imperative as was the creation of processes that support the inclusion of people with lived experience.

Measuring suicide prevention outcomes was challenging, echoing the work of Kerkhof & Clark (1998), Lewitska et al., (2019), Mann, (2020) and Zalsman et al., (2016). The difficulty of evaluating complex multi-level suicide prevention interventions can impact on the ability to resource suicide prevention implementation where effectiveness is not able to be sufficiently demonstrated. Participants expressed the importance of formulating a cross-sectoral plan with clear goals and actions that could be measured to assist with the identification of targets and evaluation of outcomes. Anecdotal accounts of successful interventions that had saved lives were illuminating according to participants but not measurable however the use of qualitative research or measures such as immediate electronic feedback for service users may be effective in informing practice. Commissioning that includes funding for programme evaluation and research would strengthen cross-sectoral ability to evaluate the programmes that contribute to suicide prevention. Social workers are uniquely placed to assist this process due to their professional education providing skills in quantitative and qualitative analysis.

7.2.j Chapter Summary

This final chapter discussed the study findings considering the socio-ecological impacts of the three disasters on Canterbury agencies and their service users with regard to suicide prevention. This study confirmed increases in risks contributing to suicide at all levels of the ecosystem and responses that sought to lower those risks by strengthening the population.

Rises in anxiety, fear and trauma, an increase in distress, suicidal distress, mental illness and self-harm was outlined. This study found the ongoing nature of the disasters resulted in chronic stress felt by Cantabrians and frontline staff, exacerbating existing trauma whilst also inducing compassion fatigue in support networks. Rises in alcohol misuse, deprivation and relationship breakdowns were noted, increasing distress and the experience of childhood adversity.

These impacts were mitigated by public health campaigns that enabled people living in Canterbury to focus on their psychological wellbeing and gain skills to improve that wellbeing including help-seeking if required. These are enduring skills and this study found they appeared to be assisting people as they adjusted to living with a global pandemic. Help-seeking increased referrals to agencies providing psychological services and mental health support but this reduced access to timely care, despite increased services. This lack of access remains a concern ten years later but coincides with observed national and international increases in mental health distress especially amongst younger people. Stigma around mental illness was also raised as a barrier to accessing services.

The effectiveness of supporting teachers and parents in responding to their children's distress was found in this study. A gap in psychological care for the cohort of young people transitioning to adolescence when the earthquakes began was identified suggesting the possible need for psychological screening of this age group. Some Canterbury mothers also appeared to require psychological support four to five years after the start of the disasters suggesting the possibility of providing intentional support to mothers during disasters.

Utilising inter-generational support to get through the tough times was raised as a resource that could be encouraged more widely. An insight that elderly people might be using their medication to take their lives also warranted further research.

The role of the media in exposing Cantabrians to a constant stream of negative discourse on the state of their mental health and comment on the inability of services to provide the psychological care required was deemed unhelpful, as were the impacts of reliving the disaster experiences through ongoing media exposure. Efforts to work with the media to highlight these effects might support a healthier approach to reporting in the future.

Considering the potential for an increase in the risk for suicide post-disaster led to the question of how to effectively provide cross-sectoral suicide prevention in Canterbury. Interview questions were formulated to examine the effectiveness of components of cross-sectoral suicide prevention implementation contained within the WHO and Collective Impact frameworks. These components were identified and discussed in this study, culminating in the formation of a Collective Impact Suicide Prevention Framework that was applicable at a local, regional and national level. The importance of resourcing an agency or entity to provide the supportive (backbone) functions of mobilising funding, enabling an overall strategic direction, facilitating cross-sectoral and public communication, as well as managing cross-agency data collection and analysis, was indicated in this study. Dynamic leadership that facilitated open and trusting cross-sectoral relationships and that ensured Te Tiriti was enacted through a partnership approach, was a dominant finding. Intentional and adequate resourcing was required to create mandate and sustainability and this study also found careful consideration of stakeholders at the governance level was required to ensure age, gender and cultures were represented as well as the inclusion of lived experience and community expertise.

Processes that supported stakeholder participation in the cross-sectoral group were equally important including karakia (prayer) to open and close meetings. The formation of a cross-sectoral suicide prevention group had a positive impact on the wellbeing of participants in that many were

responsible for the mental wellbeing of their service users and found emotional support and shared

expertise amongst others with the same responsibility. This also hastened learning processes and

supported innovation. Ensuring partnership with Māori that provided an equity focus was

imperative, as was capturing the voice of lived experience, both requiring the right processes to

ensure this occurred. Writing a cross-sectoral suicide prevention plan was viewed as strengthening

awareness, reducing stigma and providing public confidence that actions were being taken to reduce

suicides. This required all stakeholders being given the opportunity to feed into the plan and co-

design services that worked for them.

Cross-sectoral suicide prevention required constant effective communication which assisted

adaptation when required and lessened duplication of effort but was time-intensive, therefore

requiring intentional resourcing. Due to the sensitive nature of suicide, communication had to be

tailored to the audience and carefully considered. Collecting and sharing cross-sectoral suicide

prevention data was supported by all participants to inform activities and measure progress but

privacy, due to the small sets of data, was paramount. Measuring suicide prevention outcomes was

challenging but the creation of a cross-sectoral plan with clear actions was supported as a

mechanism for measuring progress. Using qualitative analysis was also suggested as a mechansim to

capture feedback to inform practice.

7.3 Overall Conclusion

Ten participants from the cross-sectoral Canterbury Suicide Prevention Governance

Committee were invited in 2019 to explore the socio-ecological impacts of the Canterbury

earthquakes, the mosque attacks and the onset of the Coronavirus COVID-19 on their agency staff

and service users to identify the implications of those impacts for suicide prevention. Participants

were also asked to discuss components of cross-sectoral implementation frameworks to identify

effective components that could create a suicide prevention implementation model that was

applicable at a local, regional and national level. This study was undertaken in Canterbury, a region

in the South Island of Aotearoa New Zealand, and the participants comprised a mix of ages, genders

and nationalities including indigenous Māori and Pacific. The agencies the participants worked for

provide care to upwards of 560,000 people living in the Canterbury region.

The data obtained was thematically analysed and assessed against relevant literature to

contextualise the findings. Three themes emerged; the social and psychological impacts of the

disasters on people living in Canterbury; suicide and suicide prevention as it affects service users and

staff in Canterbury agencies and finally; components of cross-sectoral suicide prevention

implementation.

This study found that the prolonged stress of the three disaster events impacted both

Canterbury cross-sectoral staff and their service users and data obtained illustrated a rise in many of

the risk factors that contribute to suicide. This adversity in the socio-ecological system also produced

post-traumatic growth and this study suggests that Cantabrians also acquired resilience and help-

seeking abilities that may assist them to manage psychologically in the current COVID-19 pandemic.

Key findings confirmed; the efficacy of public health campaigns that provided information to support

psychological self-help and wellbeing; the success of Māori and Pacific whanau ora programmes in

supporting families and communities both practically and psychologically; the potential for

generational support in disaster recovery; the need for tailored cultural responses in disaster events;

the importance of supporting parents and teachers to support children and; the need to consider

equity when supporting populations affected by disaster.

Further study was indicated to identify the long-term effects of trauma caused by the

disasters on young adolescents and middle-aged women in Canterbury and to investigate whether

older persons were mis-using medications to take their lives. Investigating strategies to combat

compassion fatigue and support workplace wellbeing, including vicarious trauma was also indicated.

Policy and practice implications raised by this study suggested that ongoing education for social

workers on trauma-informed care, alcohol and drug addictions and self-harm had the potential to

lower psychological distress and increase the suicide prevention workforce and that mandating

suicide prevention skills training for all government departments may support the reduction of suicide.

Following the findings on the socio-ecological impacts of the disasters with regard to suicide prevention, this study identified and considered the effectiveness of components of cross-sectoral suicide prevention implementation from the WHO suicide prevention framework and components from the Collective Impact framework. Effective components were then combined to create a Collective Impact Suicide Prevention Implementation Framework that was applicable at a local, regional and national level. Key findings illustrated the requirement for dynamic leadership and the essential conditions of resourcing a supporting (backbone) agency when formulating and implementing cross-sectoral committees and actions. This study found that creating cross-sectoral plans assisted motivation and evaluation of outcomes. The ability of cross-sectoral suicide prevention committees to support the wellbeing of agency managers responsible for the mental health and wellbeing of thousands of their service users was an important finding. This study also confirmed the requirement to ensure indigenous Māori and Pacific partnership and participation in suicide prevention in Aotearoa New Zealand and the need for considered processes to support the inclusion of people with lived experience in suicide prevention.

Further study on cross-sectoral suicide prevention implementation in Aotearoa New Zealand was indicated, including study to evaluate the effectiveness of suicide prevention outcomes. Further research into the use of the Collective Impact Framework for cross-sectoral suicide prevention is also suggested including use of the framework developed in this study. Practice and policy implications raised by this study include the commissioning of suicide prevention programmes that include funding for evaluation; provision of intentional funding to support cross-sectoral suicide prevention; and the consideration for social work to take a leading role in cross-sectoral suicide prevention.

This study contributes to suicide prevention implementation research, disaster prevention and recovery literature and suicide prevention and social work literature and practice.

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Appendix A: Agency Information Sheet

College of Arts

Human Services and Social Work Department
School of Language, Social and Political Sciences
Email: monique.gale@pg.canterbury.ac.nz
Ph: 03 3694352

18 March, 2020

Information Sheet for Agencies
"Towards an Ecological approach to Suicide Prevention in Canterbury, New Zealand"

My name is Monique Gale and I am currently undertaking a Masters of Social Work by thesis, investigating what agencies in Canterbury need to provide suicide prevention activities for their consumers and staff, and how they can maximise the opportunity to use a cross-agency approach to provide suicide prevention activities in Canterbury.

I would like to talk with someone from your agency who undertakes a pivotal role in this area about what suicide prevention knowledge and services your agency currently has, what you think your agency/consumers might need and how you can work together with other agencies to provide suicide prevention for your consumers and your staff.

The involvement in this research for the person you nominate will include a face to face interview for up to an hour. The interview will be audio recorded and later transcribed under strict conditions of confidentiality. Participants are more than welcome to bring a support person to the interview or ask me any questions about the purpose and application of this research prior to agreeing to participate.

Please note that agency participation in this study is voluntary and nominees have the right to withdraw your agency participation from the project at any stage without penalty. If you withdraw, I will do my best to remove any information relating to your agency, provided this is practically achievable.

The results of this study will appear in my Masters of Social Work thesis and may also be used in articles for publication and presentations at conferences. All participants will have their transcripts returned to them for checking and will receive a summary of findings at the end of the study. Your nominee will have an opportunity to check any content pertaining to their organisation prior to incorporating it in the thesis. The names of participants will not appear in the study but some participants may identify each other from their work on the Canterbury Suicide Prevention Governance Committee. Organisations will be identified as part of the research. All data will be de-identified and securely stored in password protected files and locked storage at the University of Canterbury. After five years the interview data will be securely deleted by myself.

If you have any concerns relating to participation in this study you can contact my supervisors, Dr Yvonne Crichton-Hill, (yvonne.crichton-hill@canterbury.ac.nz) and Professor Jane Maidment (jane.maidment@canterbury.ac.nz) who are both in the Social Work Programme of the School of Language, Social and Political Sciences at the University of Canterbury.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate, can you please complete the attached consent form and return it to Monique Gale at monique.gale@pg.canterbury.ac.nz by (insert date).

Monique Gale
Masters of Social Work Candidate
University of Canterbury

Appendix B: Participant Information Sheet

College of Arts

Human Services and Social Work Department
School of Language, Social and Political Sciences
Email: monique.gale@pg.canterbury.ac.nz
Ph: 03 3694352
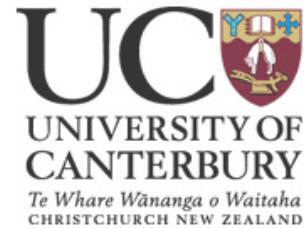
Information Sheet for Participants
"Towards an Ecological approach to Suicide Prevention in Canterbury, New Zealand"

My name is Monique Gale and I am currently undertaking a Masters of Social Work investigating what agencies in Canterbury need to provide suicide prevention activities for their consumers and staff, and how they can maximise the opportunity to use a cross-agency approach to provide suicide prevention activities in Canterbury.

Your agency has agreed to participate in my research and I would like to talk with you about what suicide prevention knowledge and services your agency currently has, what you think your agency might need and how you might work together with other agencies to provide suicide prevention for your consumers and your staff.

Your involvement in this research will involve a face to face interview for up to an hour. It is advisable to set aside an hour at a quiet place of your choosing for the interview. The personal interview will be audio recorded and later transcribed under strict conditions of confidentiality.

You are more than welcome to bring a support person to the interview or ask me any questions about the purpose and application of this research prior to agreeing to participate. Some examples of the questions that will be in the interview are:

- What suicide prevention and intervention training does your staff currently receive?
- Do all your staff receive training?

- What suicide prevention programmes do you currently deliver to your consumers?
- Are there other programmes or services you think would be helpful to provide to your consumers?

Please note that participation in this study is voluntary. If you do participate, you have the right to withdraw from the study at any time without penalty. If you withdraw, I will do my best to remove any information relating to you, provided this is practically achievable. As your agency has agreed to participate in this study an alternative agency contact may be approached.

All data will be de-identified and securely stored in password protected files and locked storage at the University of Canterbury. After five years the interview data will be securely deleted by myself.

The results of this study will appear in my Masters of Social Work thesis and may also be used in articles for publication and presentations at conferences. All participants will have their transcripts returned to them for checking and will have the opportunity to check any content pertaining to their agency prior to incorporating it in the thesis and will receive a summary of findings at the end of the study. The names of participants will not appear in the study but some participants may identify each other from their work on the Canterbury Suicide Prevention Governance Committee. Organisations will be identified as part of the research.

If any of the content discussed in the interview results in you feeling you may require support, assistance is available through the national 1737 helpline, your local doctor and through your employer assistance programme.

If you have any concerns relating to participation in this study you can contact my supervisors, Dr Yvonne Crichton-Hill, (yvonne.crichton-hill@canterbury.ac.nz) and Professor Jane Maidment (jane.maidment@canterbury.ac.nz) who teach in the Social Work Programme of the School of Language, Social and Political Sciences at the University of Canterbury.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate, can you please complete the attached consent form and return it to Monique Gale at monique.gale@pg.canterbury.ac.nz by (insert date).

Monique Gale
Masters of Social Work Candidate
University of Canterbury

Appendix C: Consent Form for Participants

College of Arts

Human Services and Social Work Department
School of Language, Social and Political Sciences
Email: monique.gale@pg.canterbury.ac.nz
Ph: 03 3694352

Consent Form for Participants
"Towards an Ecological approach to Suicide Prevention in Canterbury, New Zealand"

☐ I have been given a full explanation of this project and have been given an opportunity to ask questions.

☐ I understand what will be required of me if I agree to take part in this project.

☐ I understand that my participation is voluntary and that I may withdraw at any stage without penalty or question.

☐ I understand that any information and published or reported results will not identify me.

☐ I understand I will have the opportunity to check any attributions or quotes contained in the draft thesis and that they will only be published with my consent.

☐ I agree to my agency being named in this research OR

☐ I do NOT agree to my agency being named in this research

☐ I understand that the personal interview will be audio recorded and later transcribed under conditions of strict confidentiality.

☐ I understand that data collected for this study will not identify any individual and will be kept in password protected computer files and in locked secure facilities at the University of Canterbury and will be securely deleted after five years by the researcher.

☐ I understand that I will receive a summary of findings on this study. I have provided my email or postal address below for this.

If you have any concerns relating to participation in this study you can contact my supervisors, Dr Yvonne Crichton-Hill (yvonne.crichton-hill@canterbury.ac.nz) and Professor Jane Maidment (jane.maidment@canterbury.ac.nz) who are both in the Social Work Programme of the School of Language, Social and Political Sciences at the University of Canterbury.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

By signing below, I agree to participate in this research project.

Name: …………………………………………….

Agency: …………………………………………….

Date: ……………………………………………

Signature: …………………………………………….

Email/Postal address: ………………………………..

Signed consent forms to be returned by (insert date) to Monique Gale at monique.gale@pg.canterbury.ac.nz

Monique Gale
Masters of Social Work Candidate
University of Canterbury

Appendix D: Consent Form for Agencies

College of Arts

Human Services and Social Work Department
School of Language, Social and Political Sciences
Email: monique.gale@pg.canterbury.ac.nz
Ph: 03 3694352

<div align="center">

Consent Form for Agencies
"Towards an Ecological approach to Suicide Prevention in Canterbury, New Zealand"

</div>

☐   The agency has been given a full explanation of this project and has been given an opportunity to ask questions.

☐   The agency understands what will be required of it if it agrees to take part in this project.

☐   I understand that agency participation is voluntary and that the agency may withdraw at any stage without penalty or question.

☐   I understand that any information and published or reported results will not identify the participant.

☐   I understand that the agency will have the opportunity to check any attributions or quotes contained in the draft thesis and that they will only be published with their consent.

☐   The agency agrees to being named in this research OR

☐   The agency does NOT agree to being named in this research

☐   I understand that the personal interview with the agency nominee will be audio recorded and later transcribed under conditions of strict confidentiality.

☐   The agency understands that all data collected for this study will not identify any individual and will be kept in password protected computer files and locked in secure facilities at the University of Canterbury and will be securely deleted after five years by the researcher.

☐   The agency understands it will receive a summary of findings on this study. I have provided my agency email or postal address below for this.

☐   I confirm that I have the requisite authority to sign on the Agency's behalf.

If you have any concerns relating to participation in this study you can contact my supervisors, Dr Yvonne Crichton-Hill (yvonne.crichton-hill@canterbury.ac.nz) and Professor Jane Maidment (jane.maidment@canterbury.ac.nz) who are both in the Social Work Programme of the School of Language, Social and Political Sciences at the University of Canterbury.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

By signing below, I agree to my agency participating in this research project;

Name: ………………………………………….

Agency: ………………………………………….

Date: .……………………………………………

Signature: …………………………………………

Email/Postal address: …………………………………..

Signed consent forms to be returned by (insert date) to Monique Gale at monique.gale@pg.canterbury.ac.nz

Monique Gale
Masters of Social Work Candidate
University of Canterbury

Appendix E – Interview Questions

Semi-structured interview questions for Agency Nominee

Ecosystem

- How have the Canterbury earthquakes affected your consumers?
- How have the Canterbury earthquakes affected your staff?
- How has the Christchurch Mosques attack affected your consumers?
- How has the Christchurch Mosques attack affected your staff?
- How has Coronavirus affected your consumers?
- How has Coronavirus affected your staff?

Common agenda / Urgency for change

- Do you consider suicide and self-harm to be a major issue facing Cantabrians right now? Why?
- Is enough being done to prevent suicide and self-harm in Canterbury currently?
- Do you think there is an overall strategic direction for suicide prevention in Canterbury?

Build on work already done
- What suicide prevention programmes do you currently deliver to your consumers?
- Are there other programmes or services you think would be helpful to provide to your consumers?
- If so, what is preventing you from implementing these services/programmes?
- How have you worked with other agencies to develop or provide suicide prevention programmes?
- What suicide prevention and intervention training do your staff currently receive?
- Do all your staff receive training?

Leadership/Backbone organisation

- What is the role of leadership in establishing and sustaining a cross-agency approach to suicide prevention in Canterbury?
- How important is acquiring specialist knowledge on suicide prevention?
- Which agency should take the lead in coordinating suicide prevention in Canterbury and why?

Adequate financial resources
- Do you think the lead organisation requires funding to provide a coordinated response?
- Do you consider your agency to be resourced adequately to provide suicide prevention?

Shared measurement system

- What data do you use to inform the provision of suicide prevention activities in your agency?
- What are your views about information sharing across agencies?

Continuous communication / Coordinating community outreach
- How best can the lead agency ensure communication to other members of a Cross -agency group?
- How can the cross -agency group ensure communication of suicide prevention activities to other agencies and the wider public?
- Prompt - Methods of communication?

Mutually reinforcing activities/Shared measurement
- What opportunities do you see in working with other agencies to provide suicide prevention in Canterbury?
- What do you see as barriers to working across agencies in Canterbury?
- What benefits can you identify in being part of a Canterbury Cross-agency Suicide Prevention Coordination Group?
- What impact do you think a Canterbury Suicide Prevention Action Plan to coordinate and implement suicide prevention services in Canterbury will have?
- What is the best way to track progress on the impact of suicide prevention in Canterbury?

Power/Equity/Lived Experience

- How can you ensure that all parties are included in decision-making and implementation?
- How can you ensure the voice of lived experience is captured and translated into action?

Appendix F. Participant Questionnaire

Age	Data perimeter	Number
	21-30 years	
	31-40 years	*
	41 - 50 years	**
	51-60 years	*****
	60+ years	**
Ethnicity		
	Māori	**
	Pasifika	*
	NZ European	****
	Asian	
	European/Other	***
Years of work experience		
	0 - 5	
	6 - 10	
	11 - 15	
	16 – 20	**
	21 - 25	
	26 – 30	***
	31 – 35	*
	36 – 40	**
	40+	**
Highest Professional Qualifications		
	Year 13 or less	
	Graduate High School Diploma/Certificate	
	Trades Training	
	University courses taken but degree not completed	
	Undergraduate Diploma/Certificate	*
	Graduate Degree	***
	Postgraduate Qualifications	******
Gender		
	Female	******
	Male	****
	Other	

Appendix G: University of Canterbury, Human Ethics Committee, Letter of Approval

UC
UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2019/103 Amendment 1

2 March 2020

Monique Gale
Human Services and Social Work
UNIVERSITY OF CANTERBURY

Dear Monique

Thank you for your request for an amendment to your research proposal "Towards an Ecological Approach to Suicide Prevention in Canterbury, New Zealand" as outlined in your email dated 27th February 2020.

I am pleased to advise that this request has been considered and approved by the Human Ethics Committee.

Yours sincerely

Dr Dean Sutherland
Chair, Human Ethics Committee

Ngāi Tahu Consultation and Engagement Group

Tuesday 27 August 2019

Tēnā koe Monique Gale

RE: Toward an Ecological Approach to Suicide Prevention in Canterbury, New Zealand

This letter is on behalf of the Ngāi Tahu Consultation and Engagement Group (NTCEG). I have considered your proposal and acknowledge it is a worthwhile and interesting project and you are clear about how you ought to take participants' (cultural) needs into account if and when applicable.

Given the scope of your project, no issues have been identified and further consultation with Māori is not required.

Thank you for engaging with the Māori consultation process. This will strengthen your research proposal, support the University's Strategy for Māori Development, and increase the likelihood of success with external engagement. It will also increase the likelihood that the outcomes of your research will be of benefit to Māori communities. We wish you all the best with your current project and look forward to hearing about future research plans.

The Ngāi Tahu Consultation and Engagement Group would appreciate a summary of your findings on completion of the current project. Please feel free to contact me if you have any questions.

Ngā mihi whakawhetai ki a koe

Henrietta Carroll (on behalf of the NTCEG)

Kaiarāhi Maori Research
Research & Innovation | Te Rōpū Rangahau
University of Canterbury | Te Whare Wānanga o Waitaha
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Appendix I: Codebook

	CODING - MINDMAP			
	Codes	**Themes**	**Structure**	**Chapters**
1.	Fear / Anxiety /Trauma	**Fear Anxiety Trauma**	**Psychological Impacts of Disasters on Cantabrians**	**Impact of Disasters on the Canterbury Socio-ecological Environment**
2.	Physical Effects - Earthquakes			
3.	Vicarious Trauma			
4.	Survivor Guilt			
5.	Sadness			
6.	Distress	**Secondary Stressors, Losses, Displacement**		
7.	Stress			
8.	Losses – house, work, community /EQC			
9.	Pressure on staff			
10.	Professional versus family needs			
11.	Staff support/wellbeing			
12.	Everyone impacted			
13.	Length of effects of disasters			
14.	COVID – Isolation and COVID Anxiety	**Isolation, Socio-economic impacts**		
15.	Media			
16.	Poverty		**Socioeconomic Impacts**	
17.	Unemployment			
18.	Family Violence			
19.	Racism			
20.	Alcohol Consumption			
21.	Wellbeing	**Enhanced Wellbeing and Resilience**	**Wellbeing and Resilience**	
22.	Wellbeing promotion			
23.	Resilience			
24.	Positive Effects			
25.	Creative / New opportunities			
26.	Learnings			
27.	COVID - Working from home			
28.	COVID - Time to reflect			
29.	Community coming together - Connection	**Increased Community Connection and Collaboration**		
30.	Closer Collaboration			
31.	Community Development			
32.	Cultural Response – Pacific	**Cultural Responses**		
33.	Spirituality/Faith			
34.	Cultural practice			
35.	Risk	**Suicide Risk**	**Suicide**	**Suicide and Suicide Prevention**
36.	Self-harm			
37.	Screening /standards			
38.	Intervention	**Suicide Intervention**		
39.	Access to services			
40.	Safe people to talk to			
41.	Talking therapy			
42.	Follow up - attempts			
43.	Youth			
44.	Schools - help			
45.	Elderly			
46.	Cultural and generational differences	**Cultural and Generational Approaches, Stigma.**		
47.	Generational changes – social programs			
48.	Stigma			
49.	Suicide prevention - awareness	**Suicide Prevention Knowledge**	**Suicide Prevention**	
50.	Focus			

51.	Expertise			
52.	Disparity			
53.	Education			
54.	Information sharing /privacy			
55.	Numbers			
56.	Outcomes/measurement			
57.	Resourcing	**Resourcing**		
58.	Equity-Funding process			
59.	Lack of resources			
60.	Lived Experience	**Lived experience, co-design**		
61.	Whanau Ora approach			
62.	Co-design – Maori			
63.	Narrative			
64.	Knowledge	**Leadership**	**Suicide Prevention Implementation**	**Collective Impact as a Model for Suicide Prevention**
65.	Openness			
66.	Vision			
67.	Influence			
68.	Complexity	**Complex systems**		
69.	System Change			
70.	Strengths based model			
71.	Action			
72.	Sector relationships	**Relationships, Collaboration**		
73.	Suicide – professional wellbeing			
74.	Communication			
75.	Collaboration			