Developing a framework for supporting communities to age well in the Torres Strait and Northern Peninsula Area

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Grad Dip Phys, MPhil

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Declarations

Statement of authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at James Cook University or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made. Every reasonable effort has been made to gain permission and acknowledge the owners of copyright material. I would be pleased to hear from any copyright owner who has been omitted or incorrectly acknowledged.

Generative AI technology was not used in the preparation of any part of this thesis.

Statement of contributions by others

Nature of Assistance	Contribution	Names	Affiliation
Intellectual support	The supervisory team contributed to the research proposal design, the development of the published papers and critical review of the final thesis	A/Professor Michelle Redman-MacLaren	James Cook University
		A/Professor Sarah Russell	James Cook University
		Professor Sarah Larkins	James Cook University
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		A/Professor Sarah Russell	James Cook University
		Ms Chenoa Wapau	James Cook University
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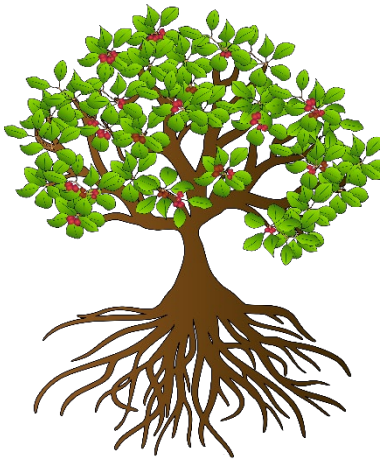
Artwork—Ageing well logo and wongai tree illustrations



Wongai tree illustrations by Jimi K Thaiday

Jimi K Thaiday is a Torres Strait Islander artist. He grew up on Erub in the Eastern Torres Straits. His Tribal clan is Peiudu, one of four tribes on Erub. His inspiration for his artwork is from his heritage, livelihood and the environment in which he lives and grew up. His cultural traditions and knowledge, which have been taught and passed on through generations, have also influenced his work.

Ageing well logo by Jimi K Thaiday

Depicted in the design are motifs representing healthy ageing. The coconut trees in the design represent the islands of the Torres Strait. The turtles swimming clockwise signify time moving forward—ageing. The flower signifies celebrations and happiness, with the light behind the trees representing the dawning of a new day, being happy with a new light (perspective) on life and ageing. The water represents the Islanders being surrounded by the sea, knowing that the sea can be sometimes rough and also smooth, just like life. Last, the designs and the intricate patterns in the background depict the Culture and Traditions we have as Torres Strait Islanders—***Jimi Thaiday***

Authored works contained in the thesis

Quigley, R., Russell, S. G., Larkins, S., Taylor, S., Sagigi, B., Strivens, E., & Redman-MacLaren, M. (2022). Ageing well for Indigenous peoples: A scoping review. *Frontiers in Public Health, 10*, Article 780898. https://doi.org/10.3389/fpubh.2022.780898

Additional published works relevant to the thesis and incorporated as an appendix (Appendix A)

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List of additional publications which the author co-authored during the candidature

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List of other outputs relevant to the thesis

1. *Lets yarn! Ageing well in the Torres Strait* [Audio podcast].

Written by **Quigley, R.,** Russell., S., Strivens, E., Sagigi, B., & Wapau, C.

https://open.spotify.com/show/4KDOrgjuJdrzMKEeLDCbbf

2. Contribution to a book chapter in *Confident supervisors—Creating independent researchers* (Gasson et al., 2023). 'Reflections of a doctoral researcher for a PhD exploring ageing well in the Torres Strait' was a reflective piece of writing, in 'Chapter Five—Higher degree researcher reflections', which gave my perspective of the PhD journey.

List of conferences at which the candidate presented work from the thesis

Poster: **Quigley R.**, Russell S., Sagigi, B., Miller G., & Strivens E. (2020). *A framework of healthy ageing for the Torres Strait: A grassroots approach to dementia risk reduction.* NHMRC: Australian Dementia Forum (online).

Poster: **Quigley R.**, Russell S., Sagigi, B., Miller G., Cadet- James, D., & Strivens E. (2020). *A grassroots approach to Healthy Ageing in the Torres Strait.* Australian Association of Gerontology Conference (online).

Poster: Sagigi, B., **Quigley, R.,** Russell, S., Larkins, S., Taylor, S., Strivens, E., & Redman-MacLaren, M. (2023). *Ways of thinking about ageing well: Global Indigenous perspectives.* Lowitja Conference, Cairns, Australia.

Poster: **Quigley, R.,** Wapau, C., Russell, S., Sagigi, B., Strivens, E., Larkins, S., & Redman-MacLaren, M. (2023). *Ageing well: Following in our Elders' footsteps.* International Indigenous Dementia Network Conference, Hawaii, USA.

Oral presentation: **Quigley, R** & Wapau, C. (2025). *Following in Elders' footsteps: yarning about ageing well in the Torres Strait and Northern Peninsula Area.* Cairns and Hinterland Hospital and Health Service Research and Innovation Symposium, Cairns, Australia

Awards during candidature

JCU Excellence award (2024)—Finalist in Research category.

JCU Excellence award (2023)—Winner in Reconciliation category.

JCU Excellence award (2021)—Winner in Community Engagement category.

CHHHS Allied Health Award for Excellence in Patient Care for outstanding performance in the field of research (2020)—Winner.

Abstract

Background and aim

Within Australian Aboriginal and Torres Strait Islander populations, the number of older adults is growing rapidly. As with Indigenous people globally, Aboriginal and Torres Strait Islander Peoples experience disparities in health and ageing trajectories when compared with non-Indigenous people. However, similarly to all populations, Aboriginal and Torres Strait Islander Peoples seek to age well by remaining active, healthy and independent for as long as possible. Community members within the Torres Strait and Northern Peninsula Area (NPA) of Queensland, Australia identified the need for support and mechanisms that allowed older adults to remain living at home in their communities while ageing well. A scoping review exploring ageing within Indigenous populations, completed as part of this study, revealed that holistic health and wellbeing, maintaining connections, demonstrating resilience, humour and having a positive attitude facilitated ageing well in the face of common challenges. However, no evidence was found indicating how Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and NPA could be supported to age well.

This study was developed in response to community feedback. The aim was to explore how individuals in the Torres Strait and NPA can age well, while examining how primary health care can support their desire to age in place and maintain meaningful lives within their communities. The ability to age well is embedded within a broader cultural context and shaped by the social determinants of health (SDoH). Understanding how ageing well is experienced within these contexts can assist with establishing programs and services that provide the most appropriate care.

Methods

A participatory action research (PAR) study was facilitated with five Torres Strait and NPA communities (Kirriri, Ngurupai, Wug, Warraber and Bamaga). Decolonising methodologies framed and guided this research. The study comprised four PAR cycles. Yarning circles (Cycle One) were facilitated, with 45 community members participating in 10 yarning circles to explore what ageing well meant to them, including the concepts, enablers and barriers associated with ageing well. Reflexive thematic analysis was used to analyse the co-generated data. The metaphor of a wongai tree was used to present the findings. Cycle Two involved

developing a healthy ageing screening tool and auditing the clinical health service data of residents aged 18 and over living in participating communities (N = 1,128) to establish the current service delivery within the five participating primary healthcare centres (PHCCs). Findings from the yarning circles and results from the audits were used to identify continuous quality improvement (CQI) projects for the PHCCs, which was the focus of Cycle Three. Plan, Do, Study, Act (PDSA) cycles, consistent with PAR methodology, were implemented to address the priorities identified. Cycle Four identified principles and action strategies arising from the yarning circle findings, audit data and CQI activities, to be incorporated into an Ageing Well Framework.

Results

The findings of Cycle One—yarning circles—demonstrated that ageing well is more complex than simply maintaining good physical health, encompassing a broader, more holistic perspective. Key to ageing well was the importance of connections and relationships to family, friends, community and Island Home—living a Torres Strait Islander life. This was symbolised by the roots of the wongai tree spreading out and providing support. The tree trunk represented maintaining a strong Torres Strait identity through practising culture and traditions. The different branches of the tree symbolised balancing physical, mental, cultural and spiritual wellbeing. The leaves represented strong community leadership and positive role models, and the wongai fruit signified passing on knowledge and wisdom, all seen as essential to facilitate ageing well. However, the challenges to ageing well were significant, symbolised by damage to the tree. These events, such as the impacts of colonisation and the destruction of traditional lifestyles and practices, have interrupted Torres Strait culture. These challenges have been compounded by ongoing inequities in the SDoH and influences of modern day societal living, such as the increasing use of social media and smart phones. Despite these difficulties, inner strength demonstrated through resilience, attitudes, personal attributes and outlook on ageing all counterbalance the difficulties faced, making ageing well achievable for many, as symbolised by new growth in the wongai tree.

Clinical audits conducted in PAR Cycle Two indicated high rates of chronic disease and risk factors for dementia. However, there were low rates of screening and assessments conducted for ageing issues such as physical function, cognitive function, continence, pain, falls, mood, hearing and vision. Adult health checks were a missed opportunity for increased screening using culturally appropriate tools, the uptake of evidence-based guidelines, the increased involvement

of clients in targeted management plans, and the input of Indigenous Health Workers, allied health staff and nurse practitioners to deliver best practice quality of care.

In Cycle Three, priorities for CQI activities were determined by the five participating PHCCs, as identified through the yarning circles and clinical audits. Some priorities were common to several of the PHCCs, while others were specific to individual PHCCs. The priorities identified included increasing the uptake of health checks and increasing the screening of problems of ageing using culturally appropriate tools—activities sitting within the scope of the PHCCs. Other priorities identified addressed wider SDoH, such as a lack of public transport; a lack of community intergenerational, recreational and social activity programs; a lack of locally produced fresh food; and a lack of respite options to support carers. These required collaborations with stakeholders outside the health sector, including the Island Council, supermarkets and schools.

The principles and action strategies identified in Cycle Four to support ageing well will be incorporated into an Ageing Well Framework. These principles and action strategies emphasise the need for a whole-of-community response that brings together health services, councils, non-government organisations, aged care providers, academia and the private sector to enable older adults to flourish, remain connected and live a life that is meaningful to them. The subsequent Ageing Well Framework will provide evidence-based recommendations that can support Torres Strait Island and NPA communities to age well. Recommendations are made at a community level, primary health care (PHC) level and individual level. At a community level, collaborations with a range of stakeholders are required to address the wider SDoH. Recommendations are made regarding age-friendly environments; integrated care between health, social and aged care providers; community-based programs, activities and education; and intergenerational activities. Within a PHC level, recommendations are made for system improvements that could enable PHCCs to provide culturally appropriate, evidence-based, best practice gerontic care to meet the needs of their clients. At an individual level, recommendations are made for facilitating ageing well that are embedded within the cultural determinants of health (CDoH). These CDoH have been proven to be protective factors for ageing well. The recommendations, if adopted, may enable people to maintain their cultural, physical, cognitive and social functional abilities into older age, allowing them to remain living at home and within their communities, an aspiration shared by most.

Conclusion

These findings broaden the field of global Indigenous ageing to provide a current understanding of Torres Strait Islander Peoples' knowledge and perceptions of ageing well. The concept of ageing well is holistic, context specific and deeply rooted in the CDoH. By centring Torres Strait Islander Peoples' perspectives in policies and practices aimed at promoting health in later life, we can improve conditions for enhancing the quality of life for older adults and facilitate ageing well.

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Thesis Outline

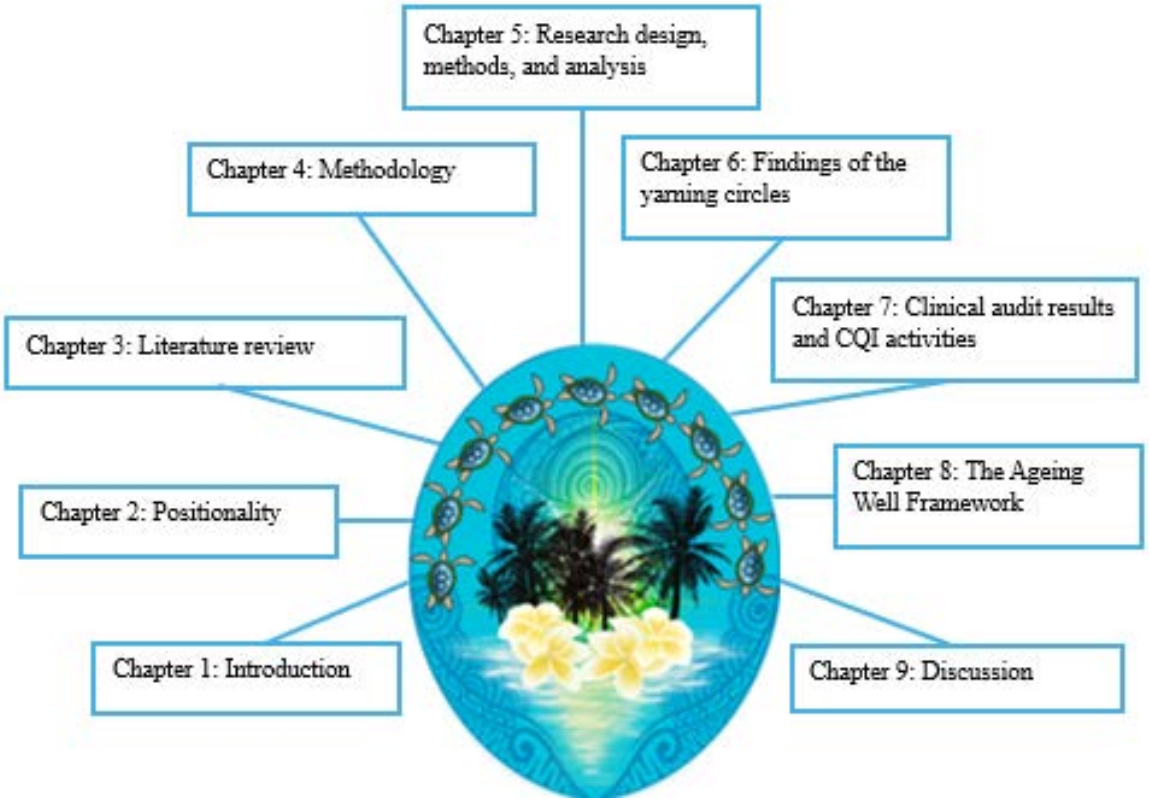


Figure 1: Thesis Outline

This monographically styled thesis is presented as nine chapters (Figure 1), with one incorporated publication in Chapter 3 (Literature review). The figure of the 'ageing well' logo has been adapted to show the nine turtles swimming full circle. Each turtle represents a chapter of the thesis. The beginning of each chapter will include a figure representing an amendment to the thesis outline. The turtle moving forward signifies a new chapter in the thesis and acts as a way-finder through the thesis. The thesis outline is summarised below.

Chapter 1: Introduction

This chapter outlines the background to my research PhD. I provide an overview of healthy ageing strategies globally, national and locally. I discuss the health and wellbeing of Aboriginal and Torres Strait Islander Peoples. I describe the study setting within the Torres Strait and Northen Peninsula Area and provide the geographical context for each of the five study sites. I provide an overview of the wider research agenda of the Healthy Ageing Research Team and

explain how this study aligns within that agenda. The chapter concludes with an explanation of the significance of the research, and I present the research aims and research questions.

Chapter 2

This chapter provides an outline of my standpoint as a researcher in the context of this study and discusses how I incorporated the practice of reflexivity into my work.

Chapter 3

This chapter provides a critique of the successful ageing literature and describes its limitations as a Western biomedical model, emphasising the need for more culturally inclusive frameworks. A published scoping review exploring Indigenous ageing globally follows. An updated literature search concludes this chapter.

Chapter 4

This chapter provides an outline of the methodology of this study. I describe my ontological, epistemological and axiological positioning that is situated within a transformative paradigm. I discuss decolonising research methodology and describe why Indigenous research principles were considered in this study. Participatory action research (PAR) as the chosen methodology is also discussed.

Chapter 5

This chapter provides a description of the methods used in the study. I describe the four PAR cycles: yarning circles, clinical audits, CQI activities and the identification of principles and action strategies that will form the Ageing Well Framework. The description of each cycle includes the methods used, participant recruitment, data collection and data analysis. The chapter also includes a description of the constructs of credibility, dependability, confirmability and transferability, and outlines how I applied them to establish the rigour and trustworthiness of the data. Ethical considerations conclude the chapter.

Chapter 6

This chapter describes the findings of the yarning circles. The seven themes generated from the thematic analysis are presented using a metaphor of a wongai tree.

Chapter 7

This chapter provides the results from the clinical audits and describes the continuous quality improvement activities that were conducted at the five primary health care centres.

Chapter 8

This chapter provides a description of the recommendations that will inform the Ageing Well Framework. It outlines actions and strategies at three levels: community, primary health service and individual.

Chapter 9

This chapter provides a discussion of the findings from the yarning circles, clinical audits and the continuous quality improvement initiatives. This chapter concludes with the limitations of the study, directions for future research and a closing statement.

List of Abbreviations

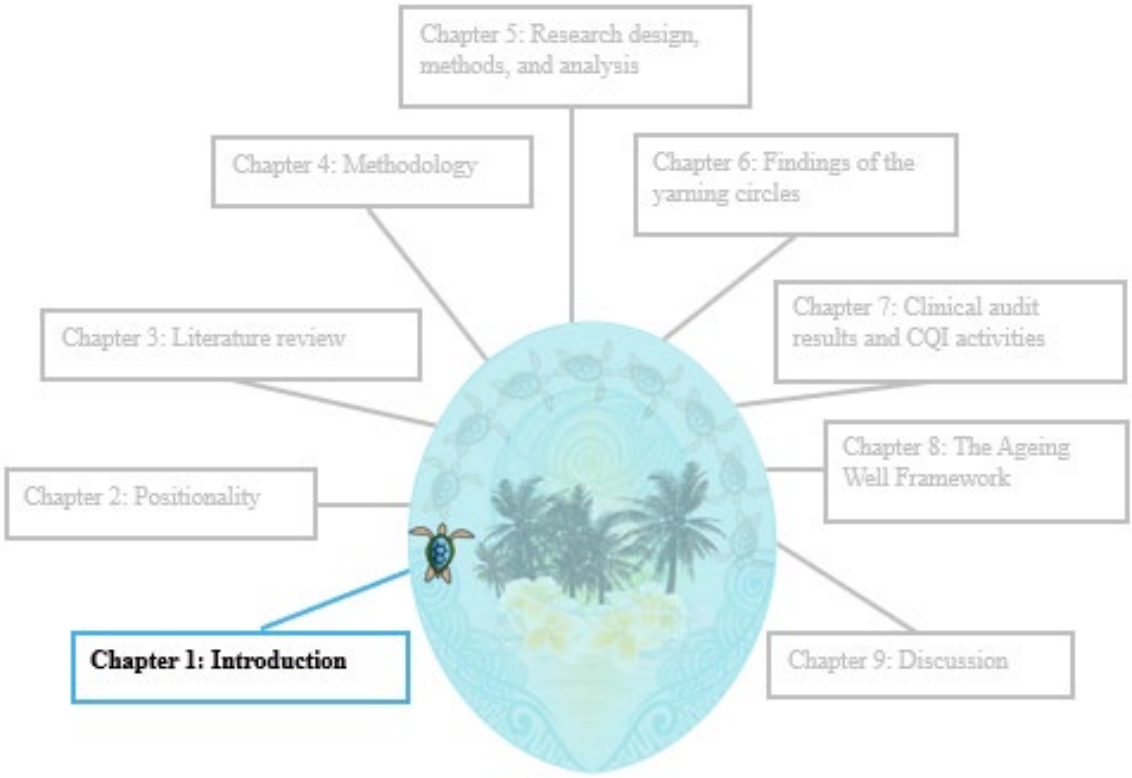
ABS	Australian Bureau of Statistics
ACAT	Aged Care Assessment Team
ACE-III	Addenbrooke's Cognitive Examination-III
ACD	Advance Care Directive
ACP	Advance Care Planning
ACR	albumin–creatinine ratio
ADL	activities of daily living
AF	atrial fibrillation
AMD	age-related macular degeneration
AHC	Adult Health Check
Aka	grandmother in Torres Strait Creole
AH & MRC	Aboriginal Health & Medical Research Council of NSW
AH	Allied Health
AHA	Allied Health Assistant
AIHW	Australian Institute of Health and Welfare
Athes	grandfather in Torres Strait Creole
ATODS	Alcohol, Tobacco and Other Drugs Service
AUDIT-C	Alcohol Use Disorders Identification Test—Consumption
Bala	brother in Torres Strait Creole
BMI	body mass index
BMD	bone mineral density
BP	blood pressure
CDoH	Cultural Determinants of Health
CDT	Clock Drawing Test
CHF	chronic heart failure
CHSP	Commonwealth Home Support Program
CKD	chronic kidney disease
CN	Clinical Nurse
CNC	Clinical Nurse Consultant
CVD	cardiovascular disease
CVR	cardiovascular risk

CHHHS	Cairns and Hinterland Hospital and Health Service
CONSIDER Statement	CONSolIDated critERtia for strengthening the reporting of health research involving Indigenous Peoples
CQI	continuous quality improvement
DART	Diabetic Assessment of Risk Test
DASS	Depression Anxiety and Stress Scale
DE	Diabetes Educator
DMMR	Domiciliary Medication Management Review
DoH	Department of Health
DoHAC	Department of Health and Aged Care
DoHDA	Department of Health Disability and Ageing
DEXA scan	Dual Energy X-ray Absorptiometry scan
eGFR	glomerular filtration rate
EOL	End of Life
ENT	Ear Nose and Throat
EOM	extraocular muscle
EPDS	Edinburgh Postnatal Depression Scale
EPOA	Enduring Power of Attorney
FNQHF	Far North Queensland Hospital Foundation
FNQ HREC	Far North Queensland Human Research Ethics Committee
GBK	Gur A Baradharaw Kod, (Torres Strait Sea and Land Council Torres Strait Islander and Aboriginal Corporation)
GDS	Geriatric Depression Scale
GP	General Practitioner
GPMP	General Practitioner Management Plan (Medicare item)
HAAT	Healthy Ageing Audit Tool
HACC	Home and Community Care
HART	Healthy Ageing Research Team
HbA1C	blood test to measure blood sugar levels
HDL-C	high density lipoprotein-cholesterol
HCP	Home Care Package
HMG-CoA reductase inhibitor	a class of drug used to lower cholesterol levels in the blood
HSR	health service response

HLO	Healthy Lifestyle Officer
IBIS	Islanders Board of Industry & Service (Supermarkets)
IHW	Indigenous Health Worker
IOP	intraocular pressure
IRP	Indigenous research principles
JCU	James Cook University
K10	Kessler Psychological Distress Scale
Kai Kai	food in Torres Strait Creole
KC	Knowledge Circle
KICA-Cog	Kimberley Indigenous Cognitive Assessment-Cognition
KICA-Dep	Kimberley Indigenous Cognitive Assessment-Depression
LDL-C	low density lipoprotein-cholesterol
MBS	Medicare Benefits Schedule
MMSE	Mini Mental State Examination
MOCA	The Montreal Cognitive Assessment
MAC	My Aged Care—The Commonwealth access portal for aged care services
NACCHO	National Aboriginal Community Controlled Health Organisation
NATSIHC	National Aboriginal and Torres Strait Islander Health Council
NDIS	National Disability Insurance Scheme
NHMRC	National Health and Medical Research Council
NIAA	National Indigenous Australians Agency
NP	Nurse Practitioner
NPA	Northern Peninsula Area
NPAFACS	Northern Peninsula Area Family And Community Services
NPARC	Northern Peninsula Area Regional Council
OPAP	Older People’s Action Program (Mura Kosker Sorority Inc.)
PAR	participatory action research
PCL-5	Posttraumatic Stress Disorder checklist for the DSM-5
PDSA	Plan Do Study Act
PGD	prolonged grief disorder
PHC	primary health care
PHCC	primary health care centre

PHQ	patient health questionnaire
PM	practice manager
QoL	quality of life
RACF	residential aged care facility
RACGP	Royal Australian College of General Practitioners
RAPD	relative afferent pupillary defect
RAS	Reginal Assessment Service
RF	rheumatic fever
RHD	rheumatic heart disease
SDoH	Social Determinants of Health
SEWB	social and emotional wellbeing
SPSS	Statistical Package for the Social Sciences
TAFE	Technical and Further Education (Tertiary education)
TCA	Team Care Arrangement (Medicare item)
TCHHS	Torres and Cape Hospital and Health Service
TI	Thursday Island
TSC	Torres Shire Council
TSIRC	Torres Strait Island Regional Council
TSRA	Torres Strait Regional Authority
UN	United Nations
VA	visual acuity
VFT	Verbal Fluency Test
WHO	World Health Organization

Chapter 1: Introduction



1.1 Chapter outline

In this chapter, I provide an overview of global, national and local ageing well strategies. I discuss the current health and wellbeing status of Aboriginal and Torres Strait Islander Peoples nationally, with a focus on the health status of Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and Northen Peninsula Area (NPA). I describe the study setting, including geographically, and detail how the research aligns within the wider research agenda of the Healthy Ageing Research Team (HART). The significance of this research is explained to highlight the knowledge gap, and I present the research aims and questions.

1.2 Global ageing

The population worldwide is ageing dramatically, with estimates that by 2050, the number of those older than 60 years will more than double to 2.1 billion individuals—from 12% of the global population in 2000 to 22% by 2050. For those aged over 80 years, the numbers will reach more than 426 million, quadruple that of the population numbers in 2000 (World Health

Organization [WHO], 2015, 2024a). Population proportions are also shifting, and by 2050, one in five individuals will be over the age of 60 compared with one in eight in 2017 (WHO, 2020). Globally, an additional 20 years have been added to life expectancy since 1960. For the first time in history, most people can expect to live into their sixties and beyond as life expectancy increases (Beard et al., 2016; WHO, 2015). This significant increase in life span reflects the advancements made in medical and surgical science and technology, and the improvements in healthcare services and public health, along with economic and social developments (Amuthavalli Thiyagarajan et al., 2022; Bautmans et al., 2022).

Although increased longevity has the potential to enable older adults to remain productive for extended periods—with benefits for individuals, their families and society (Amuthavalli Thiyagarajan et al., 2022; WHO, 2015)—these additional years do not necessarily equate to improved wellbeing and a good quality of life (QoL) for all older adults (Beard et al., 2016; WHO, 2015). Global calculations for life expectancy can mask significant differences in health status across and within countries, including calculations of disease and disability in older age (Sadana et al., 2016). Numerous physiological changes occur with increasing age. The major burdens of disability and health problems arise from the impacts of chronic disease and age-related losses in hearing, vision and mobility (WHO, 2015). The increased prevalence of geriatric syndromes in later life, related to frailty, cognitive impairment, incontinence, delirium, polypharmacy and falls, compromise independence and increase the demand for health and aged care services (Rausch, 2020). Individuals that experience extra years of life in good health, with continuing participation in family life and community, can strengthen societies. However, if those additional years are dominated by poor health, functional decline and disability, the implications for older individuals and their families, and the limitations on the contributions they can make to society, are more negative (WHO, 2015, 2020).

In recognition of the demographic shifts and inequity in longevity, global healthy ageing policies to support older people to age well have become a priority. The *Global strategy and action plan on ageing and health* for 2016–2020, produced by the World Health Organization (WHO), was adopted by the WHO's 194 member states at the World Health Assembly in May 2016. The plan provides a political mandate for the action required to ensure that everyone has the opportunity to experience both a long and healthy life (WHO, 2017). The strategy builds on three international policy documents: the *Madrid International Plan of Action on Ageing* (United Nations [UN], 2002), the WHO's *Policy Framework on Active Ageing* (WHO, 2002)

and the *World Report on Ageing and Health* (WHO, 2015). The *World Report on Ageing and Health* (WHO, 2015) superseded the earlier active ageing narrative (WHO, 2002) to broaden the scope of ageing. There was a shift in focus from an absence of disease in older adults to a more holistic and positive focus on supporting function. In 2020, The UN General Assembly declared 2021–2030 the 'Decade of Healthy Ageing', calling for a global collaboration of governments, civil society, international agencies, academia, the media and the private sector to improve the lives of older people and their communities. The UN resolution called on the WHO to lead the implementation (WHO, 2020). The ensuing action plan addresses four areas for action through a life-course approach: (1) combating ageism, (2) creating age-friendly environments, (3) delivering person-centred integrated care and responsive primary health services, and (4) providing access to long-term care (WHO, 2020).

The WHO's shift in focus towards functionality is significant. For some individuals, the presence of disease, especially if well controlled, may have very little impact on their ability to function. Consideration of how specific diseases are experienced, and how they interact and affect function, is warranted when determining the health needs of older adults. Further, positive healthy lifestyle behaviours across the life span, along with risk factor control, can prevent or delay the onset of many of these chronic diseases. For example, physical activity and good nutrition can have a significant impact on health and wellbeing, even in advanced years (WHO, 2015). Functioning is determined not only by the physical, psychosocial and mental capacities (referred to as intrinsic capacity) that an individual draws on, but also significantly by environmental characteristics (extrinsic capacity) and the subsequent interactions between these and the individual (Beard et al., 2016; WHO, 2015). Extrinsic capacities are the major determinants of functioning, and either facilitate or hinder a persons' capacity to engage in the activities they value. Such characteristics include health and social care policies, the economic context, community attitudes and access to social networks, all of which may influence health behaviours, options and choices (WHO, 2015). The physical environment, along with assistive devices, home modifications and support services, also influence an individuals' functional ability and can support those with declining capacity to remain living at home with dignity and respect (Beard et al., 2016; WHO, 2015). Thus, healthy ageing reflects the ongoing interactions between individuals and the environment in which they inhibit (WHO, 2015).

1.3 Australian ageing policies

In 2023, the population of Australia was 26.6 million (Australian Institute of Health and Welfare [AIHW], 2025). Consistent with global trends, the population is ageing. The percentage of those aged 65 and over (older people) has increased from 12% to 17% of the population over the last decade (AIHW, 2025). Population predictions estimate that by 2066, older people in Australia will comprise 23% of the population, with those aged 85 and over representing 4.4% of the population (AIHW, 2025). In recognition of the importance of this shift in demographics, the Australian Government, through the Department of Health (DoH), has identified healthy ageing as a priority, both in the National Men's Health Strategy 2020–2030 (DoH, 2019) and the National Women's Health Strategy 2020–2030 (DoH, 2018). In addition, the Department of Health, Disability and Ageing (DoHDA) has produced 'positive ageing' resources designed to support older Australians to view ageing positively, and to promote healthy and active lifestyles (DoHDA, 2025a). Within the state of Queensland, the government has published two key documents: *Healthy ageing: A strategy for older Queenslanders* (Queensland Government, 2019) and *An Age-Friendly Queensland: The Queensland Seniors Strategy 2024–2029* (Queensland Government, 2024), both with the objective of supporting healthy ageing for all Queenslanders across the state.

1.4 The impact of inequity on ageing well

The *World Report on Ageing and Health* (WHO, 2015) highlighted how the cumulative impact of health inequities across the life span contribute to diverse experiences in how well we age. Inequities are often tied to physical or social environments, but can also stem from barriers that shape opportunities, decisions and behaviours (Sadana et al., 2016; WHO, 2015). Social determinants, such as economic status, social inclusion, racism, early childhood experiences, housing, education, transport and employment, are closely linked to health outcomes (Wilkinson & Marmot, 2003). A literature review completed by Sadana and colleagues (2016), to inform the WHO *World Report on Ageing and Health* (2015), examined the impact of inequities and the ways inequities shape health outcomes into older age. The findings emphasised that social determinants of health (SDoH) affect ageing in several ways, including in the prenatal period and early childhood, where socioeconomic influences have direct or indirect latent effects; through the cumulative health impacts of social and economic disadvantage and discrimination, or privilege, over the life course; and the intergenerational transmission of health inequities (Sadana et al., 2016). The authors developed a framework of

determinants that shape healthy ageing. The four tiers that make up the framework are described as follows: (1) *context*; (2) *socioeconomic position*; (3) *strengths, exposure and vulnerabilities*, as well as the *health and social care systems*, and the *physical and built environment*; and (4) *outcomes* of the healthy ageing process, those being longevity with physical, cognitive and social functioning. In this framework, *context* includes the natural environment, social, political and economic; *socioeconomic position* includes education, ethnicity, gender, occupation, wealth and place of residence; *strengths, exposure and vulnerabilities* include lifestyle and behaviours, risk factors, psycho-social strengths, health conditions and critical events, such as abuse and trauma; *health and social care systems* include access to health and aged care services; and the *physical and built environment* includes housing, transport, leisure and recreation (Sadana et al., 2016). This cumulative advantage/disadvantage perspective posits that the disadvantages experienced in childhood or young adulthood are accentuated across the life course, while the advantages experienced by individuals of privileged groups multiply across the life course (Browne et al., 2009; Mutchler & Burr, 2011). Unequal access to education, employment, high paying occupations, quality housing, healthy food, recreation, healthcare and enriching life experiences are based at least to some extent on overt institutional discrimination, enabling more privileged populations to age well, whereas marginalised groups are less likely to experience such success (Browne et al., 2009; Martinson & Berridge, 2015; Mutchler & Burr, 2011).

1.5 Australian Aboriginal and Torres Strait Islander People's health and ageing

Aboriginal and Torres Strait Islander Peoples are the two distinct Indigenous people of Australia. In 2021, there were 983,700 Aboriginal and Torres Strait Islander Peoples, representing 3.8% of the total Australian population, with numbers predicted to rise to 1,193,600 by 2031 (Australian Bureau of Statistics [ABS], 2025). Although the current Aboriginal and Torres Strait Islander population has a relatively young age structure, the number of older adults is growing rapidly, with the proportion aged over 65 projected to nearly double to almost 70,000 by 2026 (ABS, 2025). One in five Aboriginal and Torres Strait Islander Peoples will be aged 50 or over by 2031 (AIHW, 2024a). As the population ages, there are likely to be more older adults with complex, chronic health conditions and age-related geriatric syndromes such as falls and frailty (Arkles et al., 2010; Hyde et al., 2025; LoGiudice, 2016). As with Indigenous people globally, Aboriginal and Torres Strait Islander Peoples experience

disparities in their health and ageing trajectories when compared with non-Indigenous people (LoGiudice, 2016). In 2018, the burden of disease among Aboriginal and Torres Strait Islander Peoples was 2.3 times that of non-Indigenous Australians (AIHW, 2024b). Generally, age-related conditions affect Aboriginal and Torres Strait Islander Peoples at a younger age than non-Indigenous people. Long-term health conditions affect nine in ten Aboriginal and Torres Strait Islander Peoples over the age of 55, with higher risks of certain conditions including diabetes, cardiovascular disease and respiratory disease (AIHW, 2024b). Owing to discrepancies in health status and rising rates for these chronic diseases, compounded by uneven access to appropriate heath and support services, Aboriginal and Torres Strait Islander Peoples have a life expectancy that is, on average, 10 years less than non-Indigenous Australians (AIHW, 2025; LoGiudice, 2016). For example, in remote areas of Australia, the life expectancy for Indigenous males is 67.3 years, and 71.3 years for Indigenous females (ABS, 2025). To reflect this unequal life expectancy, Aboriginal and Torres Strait Islander Peoples are eligible to access Commonwealth aged care services at age 50 compared with 65 for non-Indigenous Australians (DoHDA, 2025b).

In Australia, the historical and ongoing effects of colonisation and racism have contributed to enduring inequities in the health and wellbeing of Aboriginal and Torres Strait Islander Peoples (AIHW, 2024a; Kerse, 2023; Paradies, 2016; Sherwood & Edwards, 2006). With colonisation came the forced removal of Aboriginal and Torres Strait Islander Peoples from their ancestral land, the introduction of foreign diseases, inequitable access to health care and education, the introduction of tobacco and alcohol into communities, increased poverty and financial barriers, low employment, substandard housing and sanitation, and years of discrimination, racism and trauma, all affecting life expectancy and overall health status (Dudgeon et al., 2020; E. Finlay & Broe, 2024; Sherwood & Edwards, 2006). This cumulative disadvantage for Aboriginal and Torres Strait Islander Peoples across the life span, and intergenerationally, negatively affects experiences of aging well (Temple et al., 2019).

Healthy ageing for Australia's Aboriginal and Torres Strait Islander Peoples has not always been as challenging. Prior to colonisation, Aboriginal and Torres Strait Islander Peoples lived healthy lifestyles and benefited from the physical activity associated with hunting, gathering and fishing, as well as through dance and corroborees (Coombes et al., 2018; National Aboriginal and Torres Strait Islander Health Council [NATSIHC], 2003; Sebastian & Donelly, 2013). Traditional diets incorporated locally acquired seasonal fruit and vegetables, as well as

an abundance of fresh seafood, and traditional practices of food preparation were healthy (Coombes et al., 2018; NATSIHC, 2003; Sebastian & Donelly, 2013). However, colonisation significantly disrupted the gathering and preparation of Indigenous food and introduced Indigenous communities to unhealthy Western foods such as flour and sugar (Sebastian & Donelly, 2013).

Within Aboriginal and Torres Strait Islander communities, health is predominantly a holistic concept. The connection to Country[1] is fundamental to health and wellbeing. Spiritual, environment, ideological, political, social, economic, mental and physical factors all play an interrelated role in health. When any of these relationships are disrupted, ill health is likely to prevail. This is a whole-of-life view, where the cultural wellbeing of the whole community is central (Dudgeon et al., 2017). Aboriginal and Torres Strait Islander Peoples hold a collectivist worldview, where the concept of self is inseparable from family, community and Country, and this view is likely to be significant in their concept of ageing well (Quigley, Russell et al., 2022).

1.6 Australian primary care

Within the Australian context, primary health care (PHC) is often the key health system access point for older Aboriginal and Torres Strait Islander Peoples and is often the only source of health care in remote communities (Carey et al., 2013; Hornby-Turner et al., 2023). PHC underpins linkages to, and between, other essential contributors within the health system, such as acute, sub-acute and aged care, particularly in rural and remote areas. Chronic diseases that could potentially be prevented are the leading factor contributing to the health disparity between Indigenous and non-Indigenous Australians. The importance of PHC in the early detection and management of chronic conditions and ultimately facilitating healthy ageing is widely acknowledged (J. Bailie et al., 2017; WHO, 2015). Recommendations from the WHO (2015) included a better alignment of health systems to produce models of care for older adults through the integration of services. It was suggested that this alignment could be facilitated through a healthy ageing assessment that considers domains of cognition, mood, sensory, vitality, locomotion and the environment when older adults come into contact with health services. A further recommendation was the development of comprehensive collaborative care plans that could be used to identify a person's goals and needs, and to identify how health and social services might achieve these goals (Beard et al., 2016; WHO, 2015). Such plans could prompt

1 See later in the introduction (subsection 1.9.2) an explanation for 'Country' as a term for traditional land.

health services to provide integrated care between health and social care services centred on the older person, an approach enabled through PHC.

1.7 The research setting

1.7.1 The Torres Strait and Northern Peninsula Area

The islands of the Torres Strait are located between the northern tip of Australia and Papua New Guinea. There are over 270 islands and reefs, situated over 48,000 km^2, with Torres Strait Islanders permanently living in 18 island communities on 17 inhabited islands. The islands are divided into five traditional island clusters: Top Western (Boigu, Dauan and Saibai), Near Western (Mabuiag, Badu and Moa—with the two communities of Wug and Arkai), Central (Iama, Poruma, Masig and Warraber), Eastern (Ugar, Erub and Mer) and Inner (Waiben, Kirriri, Muralug and Ngurupai). The Northern Peninsula Area (NPA) is located at the tip of the Cape York Peninsula on the mainland of Far North Queensland. There are three Aboriginal communities (Injinoo, Umagico and New Mapoon) and two Torres Strait Islander communities (Bamaga and Seisia) in the NPA (Torres Strait Regional Authority [TSRA], 2025; see Figure 2).

Each island cluster group has their own language and/or dialects, and distinct history, environment and cultural identity (Lawrence & Lawrence, 2004). There are two traditional languages: Meriam Mer and Kala Lagaw Ya. Meriam Mer has two dialects (Mer dialect and Erub dialect), while Kala Lagaw Ya has four distinct dialects (Kulkalgau Ya, Kalaw Kawaw Ya, Kawrareg and Mabuyag). Torres Strait Creole, also known as Yumplatok or Ailan Tok, is an English-based pidgin language that is widely spoken across all the Torres Strait and NPA communities, although English is also widely spoken and understood (Torres Strait Language Centre, 2025). The population of the Torres Strait and the NPA is around 9,000, with almost 60% identifying as Torres Strait Islander, a further 20.5% identifying as both Aboriginal and Torres Strait Islander, and nearly 2% as Aboriginal, with the remaining population non-Indigenous (ABS, 2021).

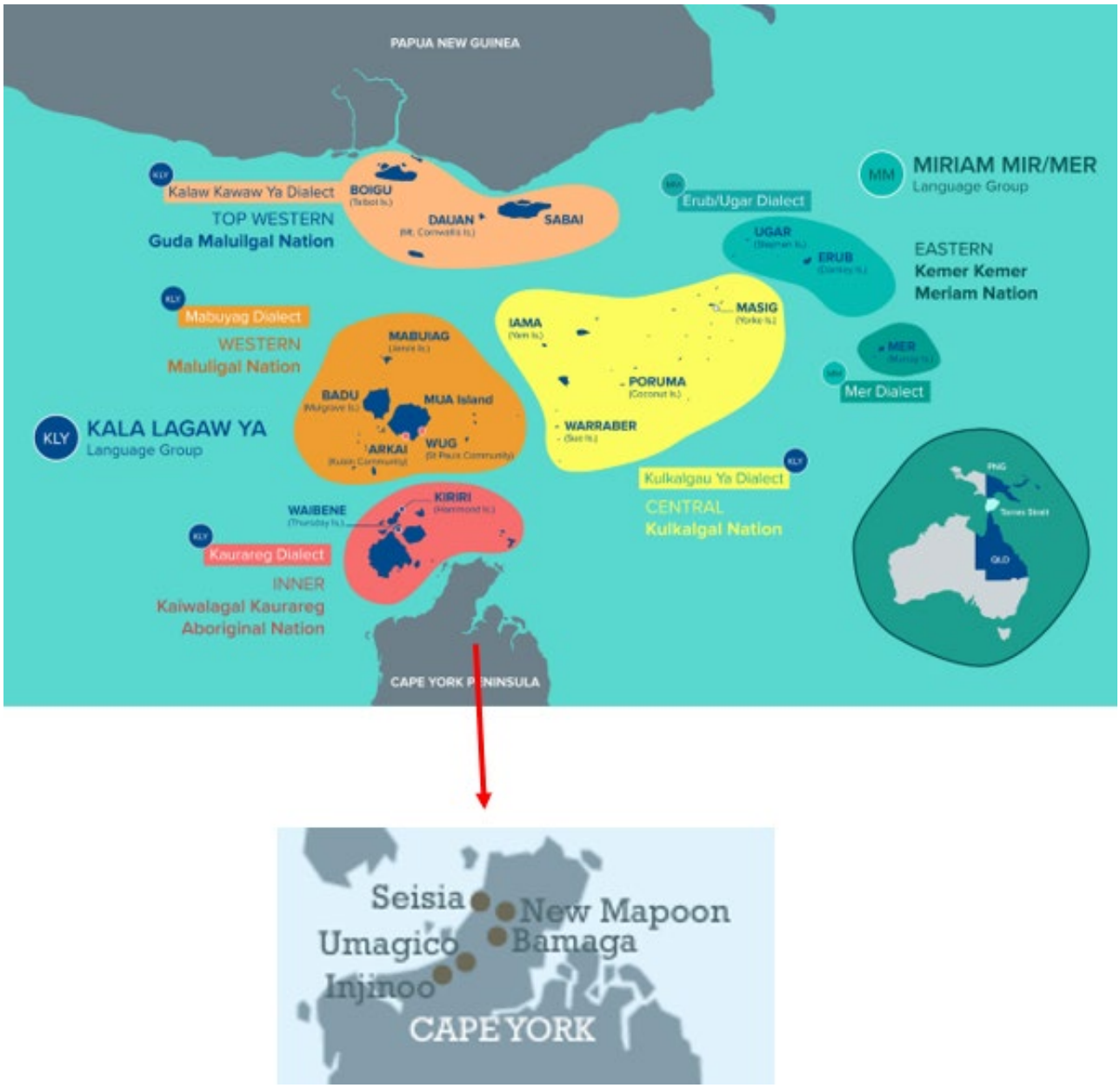


Figure 2: Map of the Torres Strait and Northen Peninsula Area (TSRA, 2025; Australian Government, Torres Strait Regional Authority, Torres Shire Council, Torres Strait Island Regional Council & Northen Peninsula Area Regional Council, 2009)

The Torres Strait was given its name by the Spanish explorer Luis Vaez de Torres, who sailed through the region in 1601. In 1770, James Cook claimed sovereignty over the eastern part of Australia at Possession Island, just off the tip of the NPA (Torres Strait Island Regional Council [TSIRC], n.d.). The arrival of the London Missionary Society (LMS) in 1871 had a significant influence on culture and traditions, with a LMS base established in the Torres Strait that aimed

to convert the inhabitants to Christianity. Christianity remains strongly adhered to across the region, and the arrival of the missionaries is celebrated annually by all island communities—referred to as 'The Coming of the Light' (Dudgeon et al., 2010; TSIRC, n.d.). In 1879, the Torres Strait was annexed and became part of Queensland when the islands became crown land (Dudgeon et al., 2010). In 1939, the Queensland Government passed the *Torres Strait Islanders Act of 1939*, recognising Torres Strait Islanders as a distinct Peoples for the first time (Lui & Nakata, 2024). Two historically significant decisions regarding native title rights originated in the Torres Strait. The first was the *Mabo* case (*Mabo and Others v The State of Queensland (No. 2)* [1992] HCA 23) where in 1992, after a 10-year claims process, the High Court of Australia recognised the Meriam People's traditional ownership of Mer. The recognition of Indigenous Peoples' land ownership exposed the legal fiction of *terra nullius*—that Australia did not belong to anyone and therefore could be settled (Dudgeon et al., 2010; Gur A Baradharaw Kod [GBK], 2025). The second decision was made in 2010, when the High Court determined that the Torres Strait Islander claimants hold native title rights and interests in their sea country, including the right to take fish for commercial purposes (*Akiba on behalf of the Torres Strait Islanders of the Regional Seas Claim Group v State of Queensland (No. 2)* [2010] FCA 643; GBK, 2025).

Torres Strait Islanders are a culturally distinct group of Indigenous people predominately of Melanesian ethnicity. Owing to the arrival of traders and colonisers, there is also diverse and mixed ancestry, which varies slightly within each island or community. The culture is multifaceted, with some Australian elements, Papuan elements and Austronesian elements (Dudgeon et al., 2010; TSIRC, n.d.). Torres Strait Islanders are sea-faring people and traditional agriculturalists. Early Torres Strait life was based on subsistence agriculture and fishing, with communal life revolving around hunting, fishing, gardening and trading. Beche-de-mer (sea cucumbers), mother-of-pearl and trochus shell industries were the main fishing industries, and fishing remains the main economic activity across the region today. Cooking and hunting are synonymous with the Torres Strait culture and are taught from a young age (Dudgeon et al., 2010; Torres Shire Council [TSC], n.d.; TSIRC, n.d.).

1.7.2 Research context within a wider research agenda

This PhD is a component of a larger research project being conducted by the Healthy Ageing Research Team (HART), of which I am a founding member. Although formally established in 2015 as HART, the team members, including myself, have a longstanding clinical and research

relationship with key stakeholders in the Torres Strait that spans over two decades. This study has been developed through ongoing relationships and consultation with both health service staff, and other community and local council groups over the past eight years (Quigley, Russell et al., 2022). Between 2015 and 2018, HART conducted a large-scale dementia prevalence study across all 18 island communities and five mainland communities in the NPA, with a focus on risk factors for dementia. The findings from that study showed that the prevalence of dementia was 14.2%, which was 2.87 times higher than that in the wider Australian population, along with high rates of falls risk, pain, impaired hearing and vision, polypharmacy, poor mobility and incontinence. High rates of chronic disease such as chronic kidney disease, cerebrovascular disease and diabetes were also reported (Russell et al., 2020, 2021). When discussing the findings with communities, community members identified the need to develop a framework that took a strengths-based approach to supporting older people in the community to age well. This request resulted in HART securing grant funding to develop the Ageing Well Framework, within which my PhD study sits.

1.7.3 The Knowledge Circle

The Knowledge Circle (KC), established in 2021, is an Indigenous reference group that oversees all HART's work in the region. The KC includes Aboriginal and Torres Strait Islander academics, community members and Elders, aged care workers and healthcare staff who have expressed an interest in working with HART on issues of ageing and the health of older adults in their communities. The main aim of the KC is to ensure that the perspectives of Aboriginal and Torres Strait Islander Peoples are embedded in all aspects of the research. Members share their expertise around study co-design and co-production, implementation, data collection and analysis, and the dissemination of results; ensure that research project methods and outcomes are culturally appropriate; take account of local issues; and promote capacity building, particularly in local communities. The group focuses on cultural content and ensures that the practices and values of their older people, their families and communities are upheld during the research process (Quigley et al., 2025). The KC meet with HART every six months face to face, and review additional documents as required between meetings. This study design was developed with input from the KC, and regular consultation occurred with the KC throughout the entire research process.

1.8 Study locations

Five primary health care centres (PHCCs) across the Torres Strait and the NPA asked to participate in this study. An overview of the five sites is as follows.

Kirriri Island

Kirriri is a 15-minute ferry ride from Waiben, which is the main administrative hub of the Torres Strait region. There are 250 residents on Kirriri. The island has a primary school and council offices with a community hall, as well as a sports and recreation hall. When this research commenced, there were no shops or grocery stores; however, in December 2023, a small Islanders Board of Industry and Service (IBIS) mini-mart opened. There are no health facilities on the island, but an outreach service from Waiben, with Indigenous Health Workers (IHWs) and a general practitioner (GP), visits monthly.

Ngurupai

Ngurupai is a 15-minute ferry ride from Waiben. There is a regular ferry service between the two islands. There are 533 residents on Ngurupai. The airport for the region is located on the island. The island has a primary school, two general stores, a community recreation centre, a council office and four privately run accommodation options. The island has a PHCC, which employs a practice manager, two clinical nurses, IHWs and a visiting GP who visits weekly. Visiting specialist services and community services are also available.

Wug community on Moa Island

Wug is one of two communities on Moa Island, which is the second-largest island in the Torres Strait. There are 300 residents in Wug. The island is a 15-minute flight from Ngurupai. Flights arrive at the airstrip in Arkai, which is a 20-minute drive from Wug. Scheduled airlines fly into Arkai several days a week, and charter fights are a regular occurrence. Wug has a primary school, an IBIS store, a council office and community hall, a sports and recreation hall, and one small privately run accommodation option. The island has a PHCC that employs a practice manager, one clinical nurse, IHWs and a visiting GP who visits fortnightly.

Warraber Island

Warraber is 100 km northeast of Waiben. There are 250 residents on Warraber. The island is a 30-minute flight from Ngurupai. Scheduled airlines fly into Warraber several days a week, and charter fights are a regular occurrence. Warraber has a primary school, an IBIS store, a council office, council accommodation, a community hall, and a sports and recreation complex. The island has a PHCC that employs a practice manager, one clinical nurse, IHWs and a visiting GP who visits fortnightly.

Bamaga community

Bamaga is one of the two Torres Strait Islander communities in the NPA on the mainland of Australia. It is located 1,000 kms northwest of Gimuy (Cairns) and has a population of 1,180 people. Bamaga has an airport with daily flights to Gimuy and Ngurupai. There is a community hall, a recreation centre, a public swimming pool, a pharmacy, a supermarket, a hardware store, a takeaway food store and three general stores. Bamaga has a primary school, a high school, and a Technical and Further Education (TAFE) centre. Council and privately run accommodation options are available. Bamaga has a small 16-bed hospital with an emergency department as well as a PHCC. The PHCC has a practice manager, IHWs, clinical nurses, a GP, and other community health and visiting specialist services (TSIRC, n.d.; TSC, n.d.; Northern Peninsula Area Regional Council [NPARC], n.d.; Queensland Government, 2025).

The PHCCs involved in this study are all run by the Queensland State Government's health service through the Torres and Cape Hospital and Health Service (TCHHS). The majority of health care in the region is provided by the TCHHS. There are only two Community Controlled Indigenous Health Services in the region: Torres Health and the Northern Peninsula Area Family and Community Service (NPAFACS). Torres Health, operating on Waiben, was established in 2017. The organisation does not employ medical professionals but employs nurses and Indigenous staff to provide Integrated Team Care support, with a focus on chronic disease management and socioemotional wellbeing (SEWB), along with health promotion services. Based within the NPA, the NPAFACS delivers services across the five communities in the NPA, as well as some Integrated Team Care services to Badu and Erub Islands. Medical services are provided by NPAFACS' resident GP.

1.9 Clarification of terminology

1.9.1 Indigenous terminology

Globally, there are over 476 million Indigenous people living in 90 countries, with more than 5,000 distinct groups (UN, 2025). Within specific Indigenous populations, different cultural groups often exist, each with distinct culture, language, beliefs and practices (Quigley, Russell et al., 2022). No definition of 'Indigenous people' has been adopted by the UN in recognition of the right of Indigenous people to decide their own identities (UN, 2015). Instead, an understanding has evolved based on shared characteristics. These include self-identification and community acceptance, historical continuity with pre-colonial or pre-settler societies, and a strong connection to ancestral territories and natural resources. Indigenous people typically form non-dominant sectors of society and retain distinct social, economic, political, cultural and linguistic systems. They are committed to preserving and developing their identity, traditions and institutions, maintaining a unique relationship with their environment. Despite global differences, Indigenous people face common challenges in defending their rights and cultural survival (UN, 2015, 2025; WHO, 2025).

Within this thesis, I refer to 'Indigenous' people when referring to the global literature, or when citing literature that uses the term in their own definitions. I acknowledge that within different countries, various Indigenous groups exist, all with their own specific terminology. Within Australia, there are two distinct groups of Indigenous people: Aboriginal Peoples and Torres Strait Islander Peoples. However, even within these two distinct groups, there are many different nation groups or clans, each with distinct histories, geographies and cultural practices, and with over 250 different language groups (Australian Institute of Aboriginal and Torres Strait Islander Studies [AIATSIS], 2020a; Kingsley et al., 2021). Within Australia, several terms are used to refer to Aboriginal and Torres Strait Islander Peoples, including 'First Peoples', 'First Nations', 'Traditional Owners', 'First Australians' or 'Sovereign peoples'; however, within this thesis, I use the preferred terminology of 'Aboriginal and Torres Strait Islander Peoples' (AIATSIS, 2020a; Australian Indigenous HealthInfoNet, n.d.; Narragunnawali, n.d.). I use the plural 'Peoples' when referring to the collective group of Aboriginal and Torres Strait Islander communities, and this is capitalised as per the recommended use of capitalisation for 'Peoples' in the report on the *Rights of Indigenous Peoples* (WHO, 2025). I use the single, non-capitalised form of the word 'people' when

referring to a people who identify as Indigenous where there is no reference being made to a specific distinct group (Government of Canada, 2024).

Within the Torres Strait, the terminology ‘Zenadth Kes’ is also sometimes used to refer to the Torres Strait region. The term ‘Zenadth Kes’ is an amalgamation of Torres Strait language names for the four winds that pass through the region (AIATSIS, 2020a). However, when discussing this terminology with my Torres Strait Islander supervisors, Torres Strait Islander HART colleagues and the Knowledge Circle, and examining relevant Torres Strait official websites such as the Torres Strait Island Regional Council website, on advice, I respectfully chose to use the term Torres Strait. The islands across the Torres Strait have traditional names (with variations in spelling) as well as English names that were enforced during colonisation. These traditional names and English names are still used interchangeably within the region. The English names have been retained in this thesis when spoken by co-researchers in direct quotes in the findings. At all other times, the traditional language name of the community has been used. Table 1 outlines the islands referred to in this thesis with both their traditional name and English name.

Table 1: Island Names

Traditional island name	English name
Waiben	Thursday Island
Ngurupai	Horn Island
Kirriri	Hammond Island
Wug community, Moa Island	St. Pauls community, Banks Island
Warraber	Sue Island

1.9.2 Traditional Land, Country and Island Home terminology

Indigenous people globally have a strong connection to their traditional land, and connection to their ancestral land is central to their existence (Biles et al., 2024; Kingsley et al., 2021). The terminology for ancestral/traditional land varies between Indigenous groups. Within North America, the word ‘Land’ is most frequently used (Biles et al., 2024). In Australia, Aboriginal Peoples use the terminology ‘Country’. For Torres Strait Islander Peoples, the preferred terminology is ‘Island Home’ (Gilchrist et al., 2025; National Aboriginal and Torres Strait

Islander Ageing and Aged Care Council [NATSIAACC], 2025). Within this thesis, when referring to ancestral land from a global perspective, the term ‘Land’ is used. When referring to the ancestral land within Australia, and when citing the literature that uses the term ‘Country’, this is the terminology I use. When specifically referring to Torres Strait Islander Peoples’ ancestral land, I use the preferred terminology of ‘Island Home’.

1.9.3 Elders versus elders

Different conceptualisations of the term ‘elder’ exist. It can be used to refer to chronological age where older adults are termed ‘elderly’ or referred to as ‘elders’. Within Australia, this age classification for Aboriginal and Torres Strait Islanders is those 50 years and over, compared with 65 years and over for non-Indigenous people. This is in recognition of their greater need for care at a younger age (AIHW, 2024a). The term ‘Elder’, when capitalised, refers to a recognised person within an Indigenous community that has fulfilled the criteria to reach Elderhood and has been given cultural authority. In this instance, they are not necessarily over the age of 50 (Busija et al., 2020; Eades et al., 2022; Warburton & Chambers, 2007; Waugh & Mackenzie, 2011). Within this thesis, the term ‘elders’ is used when the co-researchers are referring to older adults within their community. At other times, the term ‘Elder’ is used when a co-researcher refers specifically to someone who is identified and recognised within the community as an Elder.

1.10 Significance of the research

Maintaining the health of older Aboriginal and Torres Strait Islander adults is crucial not only for their QoL, but also for the cohesiveness of the community where they live. Older Aboriginal and Torres Strait Islander adults hold the important responsibility of maintaining connections to Country, caring for extended family members, and providing leadership and support, as well as having an integral role in decision-making within their communities (LoGiudice, 2016; McCausland et al., 2023; K. Smith et al., 2011; Warburton & McLaughlin, 2007).

If models of healthy ageing are to be promoted within health services, with an improved alignment between health and social care systems to support a holistic view of functioning and healthy ageing (WHO, 2015), accurate definitions of what ageing well means for Indigenous peoples are needed. This is especially significant given that healthy ageing for Indigenous people may not be easily achieved (Coombes et al., 2018; LoGiudice, 2016). Aboriginal and Torres Strait Islander Peoples must be at the centre of designing appropriate health and social

care services that support them to age well. The design of these services needs to incorporate Aboriginal and Torres Strait Islander Peoples' worldviews as the holders of cultural knowledge and practice, and thus merely adapting services that have been designed for, and by, other populations is inadequate (S. M. Finlay et al., 2021). Developing appropriate health and social care services that support ageing well can only be achieved if perceptions of, and priorities for, ageing well are voiced, acknowledged and embedded into policy and programs (Department of Health, 2021; Quigley, Russell et al., 2022).

1.11 Evidence gap

Although the evidence base with regard to healthy ageing is growing for Aboriginal Australian contexts (Coombes et al., 2018; McCausland et al., 2023), a lack of evidence still remains around what healthy ageing means in the Torres Strait or how older adults in the Torres Strait can be supported to age well in their communities. This project addresses the demonstrated knowledge gap by (1) exploring how ageing well is perceived and understood within the Torres Strait, and (2) developing an Ageing Well Framework that will enable communities, individuals and PHC to support ageing well.

1.12 Research aims

The aim of this research was to first broaden the current understanding of ageing well in a wider field of Indigenous ageing to be inclusive of Torres Strait Islander Peoples' knowledge and perceptions. The second aim was to develop an Ageing Well Framework. The intention is for the Framework to support older adults living in the Torres Strait and the NPA to age well. At a service level, the Framework guides PHC professionals to implement best practice screening, culturally appropriate assessments and targeted interventions within PHC to support their people to age well and remain in their communities. At an individual level, the Framework targets modifiable lifestyle interventions and informs the protective determinants of ageing well. Community level strategies to guide ageing well are also included. The evidence-based Framework fosters a holistic and positive approach to health and wellbeing within individuals, families and communities in the Torres Strait.

1.13 Research questions

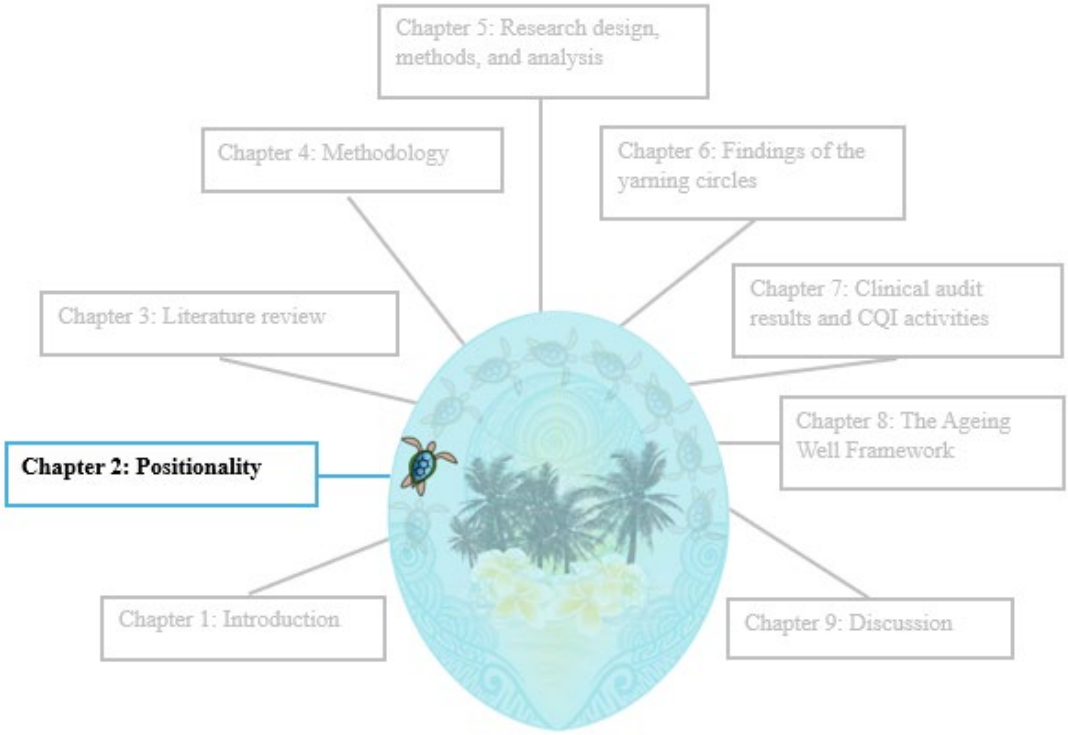
- What does ageing well mean to Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and Northern Peninsula Area?

- How can Aboriginal and Torres Strait Islanders Peoples living in the Torres Strait and Northern Peninsula Area be supported to age well?

1.14 Chapter summary

In this chapter, I have provided a background to global, national and local ageing well strategies. I have outlined the current status of health and wellbeing for Aboriginal and Torres Strait Islander Peoples nationally and provided a focused overview of the health issues within the Torres Strait. I have provided a context to the research by describing the study setting and the wider research agenda of HART. I have stated the significance of this research, highlighted the knowledge gap, and provided the research aims and questions. In the following chapter, I provide my positionality statement and address reflexive practice.

Chapter 2: Positionality



2.1 Chapter outline

In this chapter, I outline my standpoint as a researcher in the context of this study and discuss how I incorporated the practice of reflexivity into my work.

2.2 Positioning the researcher

In addition to my philosophical assumptions (addressed in Chapter 4: Methodology), it is important to explicitly address my own biography, including my values and assumptions, in this research context (Dutta, 2014). I do this in my standpoint statement. The central tenet of standpoint epistemology is that one's knowledge is situated in the beliefs and perspectives of the knowledge holder. That knowledge holder has a responsibility to explain the relationship between their standpoint and the knowledge they share (Toole, 2021). In understanding how I, an English white settler in Australia, am engaged in decolonising research within the Torres Strait, it is necessary to outline the journey through which I came to this position. Taking a decolonising approach requires scholars to decolonise themselves through critically confronting

their own power, privilege and life experiences, and the biases and insights that come with them (Dutta, 2014; Fatiha et al., 2023).

2.2.1 Standpoint statement

I was born and grew up in Sheffield, in the United Kingdom (UK), the eldest of three children to upper working class parents. They provided me with the opportunity and support—both financially and motivationally—to attend university, where I studied physiotherapy, qualifying in 1991. Through my schooling, I was taught history through a colonising lens. In my history lessons, we were taught in a way that honoured and revered our ancestors' conquests, which emphasised how strong, powerful and successful the British Empire was. I knew nothing of Australian history, my only perceptions of the country were based on the TV shows *Skippy the Bush Kangaroo*, and then *Neighbours* and *Home and Away*, both hits in popular culture at that time in the UK.

After working for a couple of years as a physiotherapist in the UK, I then worked for seven years in Saudi Arabia and for a short time in Bahrain, in a variety of hospitals. Saudi Arabia had a diverse cultural and ethnic workforce, as well as a significant class structure of obscene wealth on the one hand, and significant poverty on the other. It was during this period that I was exposed to the concepts of disparity in wealth, health and access to health services, and how this inequity had an impact on the wellbeing of individuals. This experience sowed the seeds for the focus of my PhD.

In 2001, I, along with my husband and eldest child, who was only one year old at the time, immigrated to Australia, and it was here that I became an English settler (the feelings associated with this identity are explored in more depth in the reflexivity section in this chapter). When arriving in Cairns, in Far North Queensland, in 2002, I continued working as a physiotherapist in the field of gerontology, within the local hospital and health service (HHS). One of the several positions I held during my career in the HHS was as an Aged Care Assessment Team (ACAT) assessor. I was responsible for conducting ACAT assessments across the Torres Strait and NPA for several years. ACAT assessments are the gateway for access to Commonwealth aged care services. Although mostly carried out remotely from Cairns, I had the opportunity to travel, staying on both Waiben and Ngurupai on many occasions. Speaking with the older adults from the Torres Strait was a privilege I revelled in, and learning about their history and culture was eye-opening for me. In 2008, the role rightfully transitioned to a local Torres Strait health

worker—Mrs Betty Sagigi. Aunty Betty has since been involved in both clinical and research work with the team I now work with. She has become a mentor, teacher and role model to me, is a significant person in my journey of research and clinical work, and is someone I call a friend. Nowadays, I consider Aunty Betty family. From her, I continue to learn about Torres Strait history, traditional protocols, and the social and spiritual beliefs of her people. A second clinical role as a physiotherapist within a multidisciplinary geriatric outreach service also took me to this Far Northern region. The team provide face-to-face, comprehensive geriatric assessments to older adults across the Torres Strait and NPA several times a year. I continue to hold and value this position. It was through these clinical roles that I became aware of the disparity in the prevalence of the problems associated with ageing that older adults in the Torres Strait face, specifically around cognitive impairment and dementia. Through both these roles, I was also confronted with the inequity of access to health and aged care services that was glaringly apparent, and which significantly affected the wellbeing of individuals, as well as family and community. Again, the injustices I saw through my clinical work were pushing me towards a desire to make change.

During this time, while still practicing as a physiotherapist, and with the addition of two more children arriving along the way, I concurrently entered into the world of research. While managing an allied health team on a geriatric sub-acute ward in the hospital, I was presented with the opportunity to be involved in a qualitative study investigating the care transitions of older adults (Strivens et al., 2015). This became a springboard into an MPhil that explored the systemic work required by carers of older adults as they navigated aged and health care services (Quigley, Foster et al., 2022). These two studies opened up a new world to me—a belief that I could actually make change, that research did matter, and that research could be relevant to my work. Where I saw gaps in health service delivery and inequities in access to care, I also saw opportunities for action, and for improvements that were feasible. I moved away from thinking that it was ‘not my problem’, and that it was ‘too high a mountain to address’ to thinking I could make a change. At this time, my colleagues, Professor Edward Strivens and Associate Professor Sarah Russell, had just completed a pilot study on Kirriri investigating the prevalence of dementia and other issues associated with ageing. They had received funding to expand the study across the entire Torres Strait and NPA, partnering with the Post Acute, Rehabilitation, and Aged Care (PARAC) team and Aunty Betty, who was still working in her ACAT co-ordinator role. I joined their small research team to assist with the study, and HART was formed.

Between 2015 and 2018, HART conducted a large-scale dementia prevalence study across all 18 island communities and five mainland communities in the NPA (Russell et al., 2020), with a focus on risk factors for dementia (Russell et al., 2021). Feedback to communities following the study included discussions on 'So, where to from here?' and 'How can we address some of these issues of ageing?'. However, significantly, communities wanted to take a strengths-based approach to ageing well and celebrate the strengths demonstrated by many of their older adults as they advanced into old age. The basis of this PhD was born.

In providing my standpoint statement, I hope to have provided insights into my worldview, beliefs and experiences that shaped this research and influenced the analysis. My own standpoint as a non-Indigenous white European woman sets me as an 'outsider' in this research space, and I was cognisant of how my education, colour and background placed me in a position of privilege and power. It was therefore important that I practiced reflexivity throughout the research, as Dudgeon and colleagues (2020, p. 6) stated, 'Both Indigenous and non-Indigenous researchers are required to engage in self-reflexive work to map their relationality to formulate a critical personal-political standpoint for Indigenous research.'

2.3 Practicing reflexivity

Reflexivity refers to the process of continual self-reflection and critical self-evaluation throughout the research process, enabling researchers to gain an awareness of, and reflect on, their thoughts, actions, assumptions, prejudices and expectations that may influence the research process (Darawsheh, 2014; Sibbald et al., 2025). Practicing reflexivity, therefore, provides a rationale for the research decisions made, and thus is a valuable strategy for establishing rigour and trustworthiness within qualitative research (Darawsheh, 2014). Practicing reflexivity is particularly important for non-Indigenous researchers undertaking research in Indigenous communities (Nilson, 2017; Rix et al., 2014; Russell-Mundine, 2012). To shape the new research paradigm, one that upholds Indigenous research principles, researchers must engage with and counter colonial thinking, and identify any stereotypical assumptions or idiosyncratic concepts, as well as critiquing the systems of the dominant culture (Nilson, 2017; Rix et al., 2014; Russell-Mundine, 2012). Consequently, the practice of reflexivity becomes an effective tool for alleviating power, class and cultural differences in research (Rix et al., 2014).

In engaging in reflexive practice, I have explored within myself my ability to do this work in a meaningful way, to address some of the discomfort I have faced, and at times to question whether I should even be working in this space. I regularly wrote memos during this PhD journey, usually associated with significant events, as well as a journal on each of the field trips. The following excerpts from my memos describe some of the more confronting issues I grappled with:

> Well, here I am, a **White English** settler working and researching with Indigenous peoples and starting my PhD in this field. It feels somewhat disconcerting, contradictory, even ironic. Part of me is excited, I feel challenged and brave but also, I feel some guilt and I think shame. Being English, having a strong Yorkshire accent – I feel like I need to hide it. The more I learn about Australian history and the atrocities, the more guilt I feel, not guilt from my own doings, but guilt because of the actions of my ancestors past – my Englishness. I keep asking 'Have I the right to be working in this space?', 'How did I come to be working in this space and why?', 'Am I doing this work because I need to see historical wrongs righted? Or is it more about improving care for the people I see clinically?', 'Am I just trying to fix problems and therefore does that make me a white saviour coming to find a solution to the 'problem'?', 'Am I doing more harm than good being a white English researcher working with Indigenous Peoples?' 'Do Indigenous People actually want me to do this research?', 'Am I actually going to make a positive change? Or am I in this just to get my PhD?' (Personal memo, May 2020)

Even though I had been working clinically for many years and, for a shorter time, researching in the Torres Strait, these questions had not really been at the forefront of my mind until I commenced the PhD. I often felt I needed to hide the fact that I was doing a PhD when talking with communities—embarrassed that I may be seen as taking without reciprocity. I was acutely aware of the criticism of white scholars using an Indigenous community's knowledge to get their PhD and then move on—I did not want to be seen as 'one of those'. I still feel, at times, the need to justify that I am here for the long haul and would not be disappearing once the PhD is finished. I do not think I have fully answered all those questions that I asked myself, but I have worked to understand what it really means to be white—the privileges that identity entails, and the impact that my whiteness has on Aboriginal and Torres Strait Islander Peoples. Understanding the irony of being part of a culture or system that historically exploited Indigenous knowledge, and now engaging in this research field to bring Indigenous knowledge and voices to the forefront, was important.

Some justification and answers to those questions arise when I am actually 'on the ground', in the communities and working clinically and conducting the research. There have been emotional events, and these have put to rest some of the concerns that keep coming to mind. One of these moments occurred after we had finished our female yarning circle on Warraber. The yarn itself had been quite emotional with co-researchers disclosing very personal stories of domestic violence and suicides. The senior Indigenous Health Worker (IHW), who had helped arrange the yarning circle, stood up at the end of the yarning and spoke. She thanked us profusely for yarning with community, listening to their stories and taking the time to care. She said no-one had done that before and it meant so much that we had listened. It was moments like this that made me realise how important the work was to the communities and the older adults that lived there.

Another significant moment occurred in June 2023. I attended an Indigenous research conference in Cairns. The conference was passionate—a safe space for Indigenous peoples to air so many grievances (rightly so) and experiences relating to Indigenous health and wellbeing, Indigenous rights and Indigenous knowledges. The discomfort of being a white researcher in some of those forums was considerable:

> Another very confronting conference. [I had been to the same conference a few years previously and come away with similar feelings] I'm not sure if I could go there again. I am questioning my right to work in this space. Am I part of the ongoing problem of being White and conducting Indigenous research? I am hearing that I am not wanted, perpetuating ongoing colonisation in the research setting. Is the right thing to do to just walk away? (Personal memo, June 2023)

I left the conference feeling as if I should throw in the towel, give up the PhD and move back into providing clinical services within the mainstream population. However, I had the privilege of being able to debrief and explore those feelings with some of my Indigenous research colleagues, and specifically with Aunty Betty. I explored the feelings of discomfort. Yes, the discomfort is unpleasant, but I can walk away. I got to experience what it was like to be in a minority. For many Indigenous people, the discomfort is all consuming and ever-present, across all aspects of their lives, be it in their workplace or accessing services. Institutionalised racism is real and ongoing for many—I was given an insight into how this felt, even if it was for a brief period. My colleagues helped me address some of those uncertainties. They gave reassurance that the work I (and the wider HART team) was doing was meaningful, positive and wanted.

They pressed home that this was a journey that needed to be walked together—Indigenous and non-Indigenous allies—if health inequities were to be addressed. I also joined a small group of other non-Indigenous higher degree research (HDR) students working at James Cook University (JCU)—all working in fields of Indigenous research. Through the few meetings we had, and regular supervision with my PhD advisors, I came to understand that this journey was challenging. However, if I was open and honest about who I was and why I was doing the work, and what I wanted to achieve in improving the health and wellbeing of the communities I worked in and with, there was justification for my work.

One area of concern that had arisen from both the conference and conversations within our HART team was around non-Indigenous researchers using the term 'yarning' as a method of data collection. There are some Indigenous academics who assert that yarning can only be undertaken by Indigenous peoples, and that non-Indigenous researchers should not claim to have conducted yarning. This was the message I took from the conference, and it left me questioning my whole methodology and the methods used in my PhD. However, at another Indigenous dementia conference I was fortunate to sit at lunch with Professor Dawn Bessarab, a leading academic in yarning and author of a seminal yarning paper (Bessarab & Ng'andu, 2010). We chatted about my research, and I felt comfortable enough to discuss the Cairns conference with her, since she had also been there. I opened up about my concerns about using yarning as a research method in my PhD. Professor Bessarab's opinion was that it was acceptable to use yarning as a method of data collection as long as it adhered to the yarning principles, was co-facilitated by Torres Strait Islander researchers, the participants were comfortable with it being called yarning and the analysis involved Torres Strait Islander researchers. All of these conditions had been adhered to in my research. I left that conference with very different feelings and was much more positive about the work I had carried out.

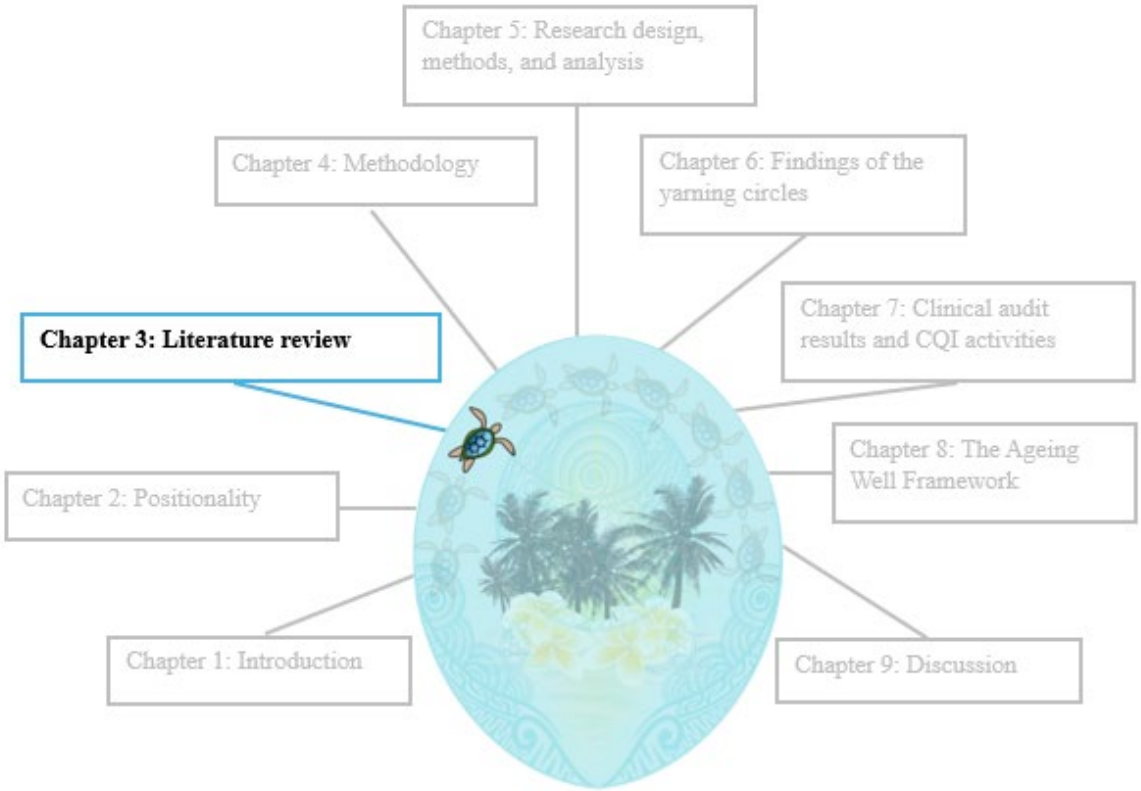
One final reflection of note is a more practical consideration as I draw to the end of this PhD journey and complete the thesis. I have a dilemma about the writing style—specifically, writing in the first person. Throughout my entire academic career (research projects and then the MPhil), it had been drilled into me that the expectation in professional academic writing was never to use the first person. This was a rule, and I am a rule follower! The words of my primary supervisor for my MPhil (someone that I respect and still look up to) ring out still, that 'no student of mine will ever write in the first person!'. This was difficult for me to forget. However, in delving deeper into the decolonising literature, I came to the realisation that even academic

writing styles can and should be decolonised, and should challenge colonial academic systems. Therefore, as I grew as a scholar, I learned that I should, and can, break some of the 'rules'. I hope that this first-person approach to writing the thesis has made the research more personal and reflective, a core component of decolonising research practice.

2.4 Chapter summary

In this chapter I have outlined my standpoint as a researcher in the context of this research and have explored how I engaged in reflexive practice. In the following chapter I critically describe the successful ageing literature and include the publication of a scoping review that identifies what it means to age well for Indigenous people globally.

Chapter 3: Literature review



Declaration of authorship

Chapter	Details of publication	Nature and extent of intellectual input from each author including the candidate	Signature of confirmation
3	**Quigley, R.,** Russell, S. G., Larkins, S., Taylor, S., Sagigi, B., Strivens, E., & Redman-MacLaren, M. (2022) Ageing well for Indigenous peoples: A scoping review. *Frontiers in Public Health, 10,* Article 780898. https://doi.org/10.3389/fpubh.2022.780898	**RQ:** Responsible for the concept and design of the study, conducted the search, extracted the data, synthesised and interpreted the findings and wrote the manuscript.	**Rachel Quigley** 

Chapter	Details of publication	Nature and extent of intellectual input from each author including the candidate	Signature of confirmation
		SR: Provided support for the literature review process; assisted with writing and editing.	**Sarah Russell**
		MRM: Provided support for the literature review process; assisted with writing and editing.	**Michelle Redman-MacLaren**
		SL: Provided support for the literature review process; assisted with writing and editing.	**Sarah Larkins**
		ST: Reviewed the final manuscript and provided feedback.	**Sean Taylor**
		BS: Reviewed the final manuscript and provided feedback.	**Betty Sagigi**
		ES: Reviewed the final manuscript and provided feedback.	**Edward Strivens**

3.1 Chapter outline

In this chapter, I explore the literature on 'successful ageing', and critically describe its limitations as a Western biomedical model, to show how these shortcomings played a role in

informing this research. I justify the use of 'ageing well' as a terminology for the subsequent scoping review. Understanding the different perspectives on what ageing well means to different populations is imperative to be able to develop and implement programs and services that support ageing well in those populations. For this reason, I undertook a scoping review to explore the literature on what ageing well means for Indigenous people globally, and to identify any gaps in the literature on ageing well for people living in the Torres Strait and NPA. This chapter includes a literature review that was published in *Frontiers in Public Health* titled 'Ageing well for Indigenous Peoples: A scoping review'. Identifying gaps in the existing literature provides further justification for the need to conduct this research.

The initial scoping review described the literature sourced between 2000 and 2020. During February 2025, I repeated the searches using the original search terms on the original databases to ensure that all the most recent papers were identified to inform this research. The updated literature is included in Table 2 and concludes this chapter.

3.2 Ageing literature

Western-based ageing scholarship in the nineteenth and early twentieth centuries portrayed ageing as a time when people experienced poor QoL, loss of self and loneliness through an inevitable biological decline (E. Finlay, 2022). This period in gerontology has been termed the 'misery perspective' (Tornstam, cited in Bassett et al., 2007, p. 114) and the 'decline and loss' paradigm (Holstein & Minkler, 2003, p. 787), a time when the elderly were viewed as leading lives of despair, deprivation and desolation (Pincock, 2010). The popular 'model of disengagement' at that time proposed that the disengagement of older adults from society was a normal part of the ageing process (Marshall & Bengston, 2011). Promoted by Cumming and Henry (1961), this model posited that biological, psychological and social withdrawals were universal, inevitable and adaptive in preparing the individual for their ensuing death (Marshall & Bengston, 2011). This negative view of ageing was challenged by gerontologist and founding director of the United States National Institute on Aging, Dr Robert Butler. Butler devised the phrase 'ageism' to describe the prevalent discrimination against the elderly and, through his work in the 1950s and beyond, advocated for what could be achieved in later life, rather than what might be lost (Dillaway & Byrnes, 2009; Pincock, 2010). This gave rise to a new era of gerontology, where the dominant view of older people as frail and ill was radically replaced with a more positive and proactive model, in which an individual could successfully age (E. Finlay, 2022; Holstein & Minkler, 2003).

Early protagonists in the successful ageing field include Havighurst (1961), who provided a positive characterisation of ageing in terms of life satisfaction and happiness; Neugarten (1972), who emphasised the influence of personality on successful ageing; Palmore (1979), who considered subjective happiness in relation to ageing; Ryff (1982) who explored the possibilities for personal growth and purpose in later life; and Baltes and Baltes (1990), who referred to coping with, and adapting to, challenges in later life in a positive and constructive manner (Jeste et al., 2013; Katz & Calasanti, 2015; Martin et al., 2015; Phelan & Larson, 2002; Serrat et al., 2024; Timonen, 2016). However, it is Rowe and Kahn (1987, 1997, 1998) who are frequently cited for introducing the concept of 'successful ageing', through their work at the MacArthur Foundation Research Network on Successful Aging in the United States of America (Depp & Jeste, 2006; Holstein & Minkler, 2003; Martin et al., 2015). Their work challenged both the dominant deficit model within the field of gerontology and the public perceptions of ageing, viewed as a downward slide into frailty (E. Finlay, 2022; L. Foster & Walker, 2015). Rowe and Kahn's model is one of the most widely used in the scientific literature and has been dominant in successful ageing research and health interventions (Amin, 2017; Bosch-Farré et al., 2018; Cosco et al., 2013; Depp & Jeste, 2006; Dillaway & Byrnes, 2009; Holstein & Minkler, 2003; McKee & Schüz, 2015).

Rowe and Kahn's (1987) medically oriented framework of successful ageing differentiates between 'usual' ageing and 'successful' ageing—'usual' ageing referring to older adults functioning well but at high risk for disease and disability, and those that age 'successfully' demonstrating a high level of functioning across several domains (Cosco et al., 2014; Katz & Calasanti, 2015). The domains, or criteria, of their successful ageing model are (1) freedom from disease and disability, (2) high cognitive and physical functioning, and (3) active engagement with life (Rowe & Kahn, 1987). These criteria are presented within a hierarchy of importance whereby 'the absence of disease and disability makes it easier to maintain mental and physical function. And maintenance of mental and physical function in turn enables (but does not guarantee) active engagement with life' (Rowe & Kahn, 1998, p. 39), therefore placing an emphasis on maintaining physical health and avoiding diseases as a primary marker of successful ageing. Rowe and Kahn (1987, 1997, 1998) argued that what many viewed as effects of ageing were in fact effects of disease, and that age-related decline could be explained by lifestyle habits, diets and an array of psychosocial factors extrinsic to the ageing process. These modifiable factors were the primary cause of decline and could be targeted by interventions to

address them. This concept reinforced that age-related deficits were not inevitable occurrences in old age (Bowling, 2007).

3.3 Critiques of the successful ageing paradigm

As the field of successful ageing has gained prominence within gerontological research, with widespread use of the term 'successful' ageing, the critical literature surrounding it has also grown. The key critiques are summarised below, with a focus on those most pertinent to this study.

Lacks definition

Most definitions of successful ageing also encompass outcomes that serve as operational definitions of the concept. These operational definitions are typically based on objective measures of health and functionality, with less inclusion of the broader psychosocial dimensions, and are often discipline specific. This lack of systematic operationalisation, and no consensus in the field on how to define successful ageing, has led to inconsistencies across studies, making cross-study comparisons difficult and hindering the development of meaningful conclusions or recommendations (Bowling, 2006, 2007; Cosco et al., 2013, 2014; Depp & Jeste, 2006; Katz & Calasanti, 2015; Martin et al., 2015; Martinson & Berridge, 2015; Phelan & Larson, 2002).

Medically orientated

Rowe and Kahn's definition has been criticised for its overemphasis on the functionality-oriented biomedical dimensions (requiring a criterion of no disease or disability) and not considering the whole person, including the emotional, social and spiritual dimensions. This biomedical approach largely ignores research from the social and psychological sciences, which consider other factors influential on successful ageing, such as satisfaction with life, aspirations, personality, personal characteristics, QoL, personal growth, compensation, adaptability, optimisation, acceptance, adjustment, sexuality and spirituality (Bowling, 2006; Cosco et al., 2013; Crowther et al., 2002; Martinson & Berridge, 2015; Peterson & Martin, 2015; Phelan et al., 2004; Reich et al., 2020; Rubinstein & de Medeiros, 2015; Strawbridge et al., 2002). The lack of consideration of an individual's mental health and its impact on ageing has also been highlighted (Bosche-Farré et al., 2018; Cosco et al., 2013, 2014; Depp & Jeste, 2006; Peterson & Martin 2015).

No subjective rating or inclusion of lay perspectives

The perceptions of what determines successful ageing are subjective (Shooshtari et al., 2020). A methodological limitation of Rowe and Kahn's successful ageing model is the lack of consideration for what ageing means to individuals—whether successful or not. This gap has been addressed through qualitative research and self-reporting studies (Katz & Calasanti, 2015). Individuals can experience a sense of life satisfaction and consider themselves to be ageing well, despite multiple losses and physical decline (Carstensen et al., 2019; Reich et al., 2020). Qualitative studies of successful ageing reflect multidimensional and psychosocial aspects of successful ageing that are not included in a biomedical model. Studies that have encompassed lay perspectives provide insights into what older adults themselves value, with a greater focus placed on adaptation, meaningfulness, connection, family, spirituality and social engagement (Amin, 2017; Bowling, 2006, 2007; Carstensen et al., 2019; Cosco et al., 2013; L. Foster & Walker, 2014; Hung et al., 2010; Jeste et al., 2013; Katz & Calasanti, 2015; Martin et al., 2015; Martinson & Berridge, 2015; Phelan & Larson, 2002; Phelan et al., 2004; Reich et al., 2020; Stowe & Cooney, 2015). In a systematic review of lay perspectives of successful ageing, older adults favoured psychological and social criteria of successful ageing over biomedical criteria (Reich et al., 2020). Incorporating non-medical perspectives in models of ageing well can enhance theoretical definitions and enable a more patient-centred definition of successful ageing to emerge (Deppe & Jeste, 2006; Hung et al., 2010; Martinson & Berridge, 2015; Phelan et al., 2004).

Precludes those with chronic disease or disabilities from ageing successfully

Rowe and Kahn's biomedical model of successful ageing precludes people with chronic disease and disabilities from being classified as ageing successfully (Katz & Calasanti, 2015; Martinson & Berridge, 2015; Timonen, 2016). However, several studies in a meta-analysis of lay perspectives of successful ageing (Cosco et al., 2013) and a systematic review of the literature on successful ageing critiques (Martinson & Berridge, 2015) found that individuals with chronic diseases were ageing successfully, and that subjective meanings of successful ageing varied significantly from objective measures. Even if older adults experience disability or disease, they are still able to engage in life activities and consider themselves successful agers (Dillaway & Byrnes, 2009; Martin et al., 2015; Bosch-Farré et al., 2018; Bowling, 2006; Cosco et al, 2013; L. Foster & Walker, 2015; Katz & Calasanti, 2015; Peterson & Martin, 2015; Strawbridge et al., 2002). To label an individual as unsuccessful and blame them for their

condition because they are disabled or have ill health is contentious at best and can negatively influence how people with chronic conditions or disabilities perceive their own ageing bodies (L. Foster & Walker, 2015; Holstein & Minkler, 2003; Katz & Calasanti, 2015; Martinson & Berridge, 2015; Stowe & Cooney, 2015; Strawbridge et al., 2002).

Individualistic responsibility

Rowe and Kahn's model assumes that successful ageing is under the control of an individual's own efforts and initiatives, and that it is an individual's responsibility to overcome personal barriers and work towards successful ageing at all times (Dillaway & Byrnes, 2009; Katz & Calasanti, 2015; Marshall & Bengston, 2011; Martin et al., 2015; Rubinstein & de Medeiros, 2015). Rowe and Kahn (1998) stated, 'Our main message is that we can have a dramatic impact on our own success or failure in aging. Far more than is usually assumed, successful aging is in our own hands' (p. 18). This successful ageing model fails to take into account the fact that individuals' lives and social structures are interdependent, and these vary considerably (L. Foster & Walker, 2015). Making autonomous choices requires a diverse range of experiences and knowledge, as well as the ability to apply them effectively. However, these resources are not equally accessible to everyone. Widespread inequalities, varied life experiences, and the social and economic conditions that individuals live through provide some individuals with far more choices than others (Holstein & Minkler, 2003; Rubinstein & de Medeiros, 2015). Further, individual choices are intrinsically linked to privilege; hence, those with the most access to health services can structure their health behaviours within the context of positive lifestyle outcomes (Katz & Calasanti, 2015). Martinson and Berridge (2015), in their systematic review of successful ageing critiques, overwhelmingly found that the successful ageing paradigm was seen as unrealistic and exclusionary.

The dichotomy of success and failure

Using the concept of success (or failure) to categorise ageing promotes the notion of winners and losers, rather than seeing ageing well as a point on a continuum of achievement, and it implicitly labels most adults as unsuccessful (Cosco et al., 2014; Depp & Jeste, 2006; Dillaway & Byrnes, 2009; L. Foster & Walker, 2015; Hung et al., 2010; Katz & Calasanti, 2015; Martin et al., 2015; Martinson & Berridge, 2015; Ranzijn, 2010; Rubinstein & de Medeiros, 2015). Katz and Calasanti (2015) argued that, contrary to what Rowe and Kahn set out to achieve with

promoting a positive outlook on ageing, this model actually contributes to ageist discrimination by giving rise to the notion of successful versus usual ageing.

The word 'success' in itself is a Western concept that is often associated with economic or material achievement, which may not be universally desired, and is depicted as a value judgment (Liang & Luo, 2012; Martin et al., 2015; Strawbridge et al., 2002). Success is reflected in the fortunate elite, and rewards those who have been able to make positive life decisions, such as financial planning and adherence to health promotion advice, while those who find themselves in less favourable circumstances are blamed or neglected. This bias towards wealthier, better educated adults with more readily accessible resources means that, for many, successful ageing is beyond reach (Bassett et al., 2007; Bowling, 2007; Dillaway & Byrnes, 2009; L. Foster & Walker, 2015; Hung et al., 2010; Martin et al., 2015; Martinson & Berridge, 2015; Peel et al., 2004; Stephens et al., 2015).

Omission of a life course perspective

Late life health and wellbeing can partly be explained as an accumulation of advantage or disadvantage throughout life (Browne et al., 2009; Carstensen et al., 2019). However, the successful ageing model underestimates the influence of disadvantages that can accumulate over the life course. These include forces outside an individual's control such as social, political, economic and historical factors. Ignoring social constraints and inequalities around race, poverty, gender, isolation, ethnicity, class and sexuality can make it fundamentally impossible to follow a successful ageing trajectory (Katz & Calasanti, 2015; Marshall & Bengston, 2011; Martinson & Berridge, 2015). Rubinstein and de Medeiros (2015) noted that the model fails to account for situations that may involve a history of trauma, including early-life violence, social or personal suffering, a lack of access to resources or medical care, or ongoing economic or social marginalisation. Incorporating life course factors into successful ageing discourse can provide a more nuanced perspective of how social forces, diverse experiences and individual agency interact to shape interpretations of success and ageing outcomes (Stowe & Cooney, 2015).

Lack of contextual/extrinsic factors

A lack of consideration of contextual factors has been highlighted in the literature. Specifically, in a systematic review and meta-ethnography of lay perspectives of successful ageing, Cosco and colleagues (2013) found that external components, such as finances and a satisfactory living

environment, were frequently cited as factors that were influential on successful ageing. Since ageing is a social process, it is contingent upon societal interventions such as education, leisure and opportunities to volunteer, considerations that should be factored into successful ageing constructs (L. Foster & Walker, 2015). Access to education, employment, quality housing conditions, healthy food and recreation; widowhood and retirement; and interactions between individuals and their environments have also been highlighted as important inclusions when assessing successful ageing (Amin, 2017; Bowling, 2006; Martinson & Berridge, 2015; Strawbridge et al., 2002). Relationships with family members and the role that family play, including providing physical and emotional care, affects perceptions of successful ageing (Amin, 2017; Martinson & Berridge, 2015). At a macro level, the financial resources of a country, the availability of health services within that country and its ageing policy interventions all influence the ability to successfully age (Martinson & Berridge, 2015; Stowe & Cooney, 2015).

Promoting ageing as undesirable

There is also concern that categorising ageing in this dichotomous way may portray ageing as undesirable and preventable (Dillaway & Byrnes, 2009; Martinson & Berridge, 2015). In some cultures, ageing is accepted as an important part of the circle of life, and the old are honoured and revered. This is in stark contrast with the Western emphasis that frequently seeks to defy, deny and resist ageing (Phelan & Larson, 2002; Ranzijn, 2010). The business of seeking eternal youth, through the dominance of youth-preserving technologies and lifestyles, which demand increasing amounts of time and money, undermines a respectful attitude towards old age. These capitalist and consumerist components of successful ageing are understated and indicative of a new 'ageism' in which old age can be transcended (Dillaway & Byrnes, 2009; Holstein & Minkler, 2003: Liang & Luo, 2012; Timonen, 2016).

Ethnocentric

Cultural context plays an important role in defining successful ageing, yet current academic definitions of successful ageing seem to be independent of cultural identity (Hung et al., 2010; Manasatchakun et al., 2016; Martinson & Berridge, 2015; Martin et al., 2015; Shooshtari et al., 2020; Stowe & Cooney, 2015; Torres, 2006). Martinson and Berridge (2015) noted 'the cultural bias of successful aging, with its implied sense of individual accomplishment that is incompatible with the cultural understandings of life and aging held by many people across the

world' (p. 65). The successful ageing discourse was built on mainstream American standards, and, significantly, in the context of this research proposal, the model is oblivious to cultural differences (Hung et al., 2010; Laditka et al., 2009; Liang & Luo, 2012; Torres, 2006).

Dimensions of successful ageing for different cultural groups have been explored across the literature, and these studies have overwhelmingly reported that older people's norms, perceptions and self-awareness of the reality of ageing differ across cultures, making successful ageing culture dependent (Amin, 2017; Hung et al., 2010; Manasatchakun et al., 2016; Martin et al., 2015; Martinson & Berridge, 2015; Shooshtari et al., 2020). The successful ageing literature focusing on culturally diverse populations have reported that older people from non-Western backgrounds hold a more holistic view of successful ageing, which extends beyond functional independence (Amin, 2017; Hung et al., 2010; Liang & Luo, 2012). Studies have highlighted that domains such as family, positive spirituality, relationships and positive outlook play a role in successful ageing, and that attitudes and behaviours are greatly influenced by traditions, religious beliefs and values derived from different individual cultural backgrounds, (Hung et al., 2010; Liang & Luo, 2012; Martinson & Berridge, 2015). Although some domains of successful ageing, such as physical health and economic wealth, may be consistent across cultures, their relative impact on wellbeing can vary with an emphasis on different dimensions, differing from those relevant in Western societies (Amin, 2017). Non-Western societies value interdependence and family relations more than individual independence, and family relationships play a strong role in ageing success (Amin, 2017; Stowe & Cooney, 2015). Non-Western perspectives also challenge the individualistic responsibility of ageing well, with a greater focus on successful ageing with a collectivist focus (Martinson & Berridge, 2015; Stowe & Cooney, 2015).

Other more culturally specific factors, such as the transmission of cultural knowledge or participation in cultural activities, may hold greater significance in certain cultures (Martin et al., 2015; Willcox et al., 2007). Thus, the role of culture is a significant one in the conceptualisation of what it means to age well. Different cultural perspectives of what constitutes successful ageing highlight the need for exploring the determinants of successful ageing in non-Western settings (Torres, 2006) and specifically within Indigenous populations (Lewis, 2010). Lewis (2010) highlighted the lack of Indigenous perspectives in the development of the successful ageing model, which was based on Western conceptualisations of successful ageing. Consequently, this runs the risk of the further 'problematisation' of

Indigenous peoples by classifying them as ageing less successfully than non-Indigenous populations.

If perspectives of successful ageing differ among different cultural groups, knowledge about those differences will facilitate the construction of a more comprehensive, culturally appropriate concept of successful ageing, which would be more realistic and useful for the community in which it is developed (Hung et al., 2010; Laditka et al., 2009). Knowing the predictors of successful ageing that are relevant to communities allows health and social care providers to provide the most appropriate health care (Phelan & Larson, 2002; Phelan et al., 2004). For the purpose of this research, it is therefore imperative that ageing well is considered more deeply from an Indigenous and, more specifically, a Torres Strait Islander perspective.

3.4 A matter of terminology

As this review highlights, the term ‘successful ageing’ is contentious. The materialistic connotations and biomedical emphasis render the term ‘successful ageing’ inappropriate for describing health outcomes (Peel et al., 2004). Alternative, more inclusive and less dichotomous terms have emerged within the academic, medical and policy literature over the past decade. These include active ageing, ageing well, authentic ageing, balanced ageing, competent ageing, effective ageing, good old age, harmonious ageing, healthy ageing, independent ageing, optimal ageing, positive ageing, productive ageing, resilient ageing, resourceful ageing, robust ageing and vital ageing (Bowling, 2006; Carstensen et al., 2019; Dillaway & Byrnes, 2009; L. Foster & Walker, 2015; Katz & Calasanti, 2015; Liang & Luo, 2012; Martinson & Berridge, 2015; Strawbridge et al., 2002). However, Strawbridge et al., (2002) noted equal fault with the semantics of many of those alternative terminologies, with the exception of ‘ageing well’. Waddell and colleagues, (2024) suggested the gerontological field adopt the term ‘ageing well’ as an alternative and more inclusive term to ‘successful ageing’. Further, Ranzijn (2010) argued that the paradigm of ‘successful’ or ‘active’ ageing has the potential to further marginalise Aboriginal Elders within Australia, and that expanded conceptualisations of ageing, such as ‘ageing well’ or ‘authentic ageing’, may better capture the cultural diversity of ageing and promote social inclusion. Ageing well is a more inclusive paradigm, since it allows older individuals to define what ageing means to them and, in turn, determine what they need to age well (Ranzijn, 2010).

To explore the domains of ageing well for Indigenous populations globally, and to identify the barriers and facilitators associated with ageing well, a scoping review of the existing literature was conducted.

3.5 Indigenous ageing well

The international literature related to the meaning of ageing well for Indigenous populations is presented in this published scoping review.

Quigley, R., Russell, S. G., Larkins, S., Taylor, S., Sagigi, B., Strivens, E., & Redman-MacLaren, M. (2022). Ageing well for Indigenous peoples: A scoping review. *Frontiers in Public Health*, *10*, Article 780898. https://doi.org/10.3389/fpubh.2022.780898

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Aging Well for Indigenous Peoples: A Scoping Review

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As life expectancy increases for Indigenous populations, so does the number of older adults with complex, chronic health conditions and age-related geriatric syndromes. Many of these conditions are associated with modifiable lifestyle factors that, if addressed, may improve the health and wellbeing of Indigenous peoples as they age. If models of healthy aging are to be promoted within health services, a clearer understanding of what aging well means for Indigenous peoples is needed. Indigenous peoples hold a holistic worldview of health and aging that likely differs from Western models. The aims of this review were to: investigate the literature that exists and where the gaps are, on aging well for Indigenous peoples; assess the quality of the existing literature on Indigenous aging; identify the domains of aging well for Indigenous peoples; and identify the enablers and barriers to aging well for Indigenous peoples. A systematic search of online databases, book chapters, gray literature, and websites identified 32 eligible publications on Indigenous aging. Reflexive thematic analysis identified four major themes on aging well: (1) achieving holistic health and wellbeing; (2) maintaining connections; (3) revealing resilience, humor, and a positive attitude; and (4) facing the challenges. Findings revealed that aging well is a holistic concept enabled by spiritual, physical, and mental wellbeing and where reliance on connections to person, place, and culture is central. Participants who demonstrated aging well took personal responsibility, adapted to change, took a positive attitude to life, and showed resilience. Conversely, barriers to aging well arose from the social determinants of health such as lack of access to housing, transport, and adequate nutrition. Furthermore, the impacts of colonization such as loss of language and culture and ongoing grief and trauma all challenged the ability to age well. Knowing what aging well means for Indigenous communities can facilitate health services to provide culturally appropriate and effective care.

Keywords: Indigenous, aging, Indigenous health, Indigenous wellbeing, Indigenous older adults, scoping review

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INTRODUCTION

The population worldwide is aging dramatically, with estimates that by 2050 the number of people aged 80 years and over will be more than 426 million, triple that of population numbers in 2020 (1). Moreover, for the first time in history, most people can expect to live into their sixties and beyond (2, 3). Increased longevity can potentially enable older adults to remain engaged for longer, resulting in positive outcomes for the individual, their families, and society as a whole. However,

increasing longevity is not always associated with extended periods of good health. Epidemiological evidence indicates global health outcomes are not improving equitably, and quality of life during these extra years is unclear (2, 3). For those living with functional decline and disability, there is an increased demand on health and social care, and limitations on contributions they can make to society (3). Increased prevalence of geriatric syndromes, related to frailty, cognitive impairment, incontinence, delirium, and falls, compromise independence and increase demand for health and aged care services (4).

For Indigenous peoples, there is an increased prevalence of chronic conditions such as diabetes, cardiovascular disease, and respiratory disease (5–8). Furthermore, age-related conditions such as dementia are more prevalent in Indigenous populations and affect people at a younger age (9–12). The number of Indigenous peoples is growing (13, 14) and for many Indigenous populations, life expectancy is increasing (15). Greater proportions of Indigenous peoples over 65 years are surviving into older age (16–20). As these populations age, there may be a higher number of older adults with complex, chronic health conditions and geriatric syndromes such as falls and frailty. However, many of the problems of aging and chronic conditions are associated with lifestyle factors and are amenable to interventions that have the potential to improve the health and wellbeing of Indigenous peoples as they age.

Health is a holistic concept within Indigenous communities (21, 22). The connection to land is central to wellbeing and spiritual, environmental, ideological, political, social, economic, mental, and physical factors all play interrelated roles in wellbeing (23). When any of these factors are disrupted, ill health is likely to occur (23). Indigenous peoples therefore hold a different worldview where the concept of self is collectivist and inseparable from land, family, and community, and this view is likely to be significant in their concept of aging well.

Concepts of Aging Well

The concept of aging well has been given considerable attention in the literature. "Aging well" is often defined synonymously with "successful ageing," "positive ageing," "good old age," "active ageing," "robust ageing," "healthy ageing," "productive ageing," "vital ageing," and "optimal ageing," with definitions and measurements of these varying significantly (24–35). Rowe and Kahn (36, 37) are frequently cited for introducing the concept of "successful ageing," and their model is one of the most widely used in the scientific literature (26, 27, 30, 31, 34, 38, 39). Despite its widespread use, the term "successful ageing" has generated criticism. "Success" is often associated with economic or material achievement, especially in a Western culture where the ideal of success is reflected in the lifestyles of the fortunate elite. Those who have been able to make made positive life decisions, such as financial planning and adherence to health promotion advice, are rewarded, and those who find themselves in less favorable circumstances often experience blame or neglect. The concept of success or failure to categorize aging promotes the notion of winners and losers, rather than successful aging being on a continuum of achievement (24, 28, 29, 32, 39, 40).

The model of successful aging posited by Rowe and Khan (36) is based on three criteria: (i) freedom from disease and disability; (ii) high cognitive and physical functioning; and (iii) active engagement with life. These criteria place an emphasis on maintaining physical health and avoiding disease. However, this approach has been criticized for being a medically-orientated model which: (i) neglects social relationships and engagements (41–43); (ii) underestimates the influence of contextual factors (35, 41, 44, 45); (iii) is oblivious to cultural differences (35, 40, 41, 43, 46); (iv) ignores the interactions between individuals and their environments (43–45); (v) overlooks mental wellbeing (38, 43); (vi) fails to take into account the disadvantages that accumulate over the life course (25, 29, 40, 43–45); (vii) fails to consider the developmental process throughout the individual's lifespan (25, 29, 40, 43, 46); and (viii) does not acknowledge that successful aging is possible for those with chronic disease or disabilities (29, 38, 41–43, 45). Incorporating broader, non-medical perspectives in models of aging well can enhance theoretical definitions and enable more individual- and community-centered definitions of aging well to emerge. Studies that have encompassed lay perspectives found non-medical models of aging well to be multidimensional, with a greater focus on adaptation, meaningfulness, and connection, and provide insight into what older people value (25, 26, 29, 30, 33, 41, 42, 47). Knowing how aging well is expressed within particular communities allows health and social care providers to provide the most appropriate health care (33). It is therefore imperative that aging well is considered from a cultural perspective.

Dimensions of aging well for different cultural groups have been explored across the literature. Prior research overwhelmingly reports that older people's norms, perceptions, and self-awareness of the reality of aging differ across cultures, making aging well culture-dependent (28, 29, 44, 48). Hung and colleagues (28) compared the concept of healthy aging from Western and non-Western cultural perspectives, as well as between academics and lay older persons. They found older people from non-Western cultures held a more holistic view of healthy aging, which extended beyond functional independence, and included domains such as family, adaptation to age-related changes, financial security, personal growth, positive spirituality, and positive outlook. The authors suggested attitudes and behaviors relevant for healthy aging are greatly influenced by traditions, religious beliefs, and values derived from different individual cultural backgrounds, yet current academic definitions of healthy aging seem to be independent of cultural identity. Amin (41) explored successful aging from older adults' perspectives in Bangladesh and found, similarly to Hung and colleagues (28), that successful aging encompassed dimensions such as adaptations to one's changing body, financial security, religiosity, age identity, and social engagement. Amin (41) found that older adults' emphasis on these dimensions, however, was qualitatively different from those identified as relevant in Western societies, and that family relationships played a strong role in aging success—something often neglected in Western models.

Although some domains of aging well, such as physical health and economic wealth, may be consistent across cultures, their

relative contributions to wellbeing vary. Other more culturally situated values, such as transferring cultural knowledge or participating in cultural activities, may hold greater importance in certain cultures (29, 34). Incorporating perspectives from different cultural settings will facilitate construction of a more comprehensive, culturally appropriate definition of aging well, which would be more realistic and useful for the community in which it is developed (28). Additionally, an understanding of aging well may support both health and social care systems to be better aligned to integrate services that support a holistic view of functioning and healthy aging (3). If models of healthy aging are to be promoted within health and social care services, there needs to be a clearer understanding of what aging well means for Indigenous peoples. This is particularly significant for Indigenous people where healthy aging may not be easily achieved (7, 49).

Purpose of Review

This review was conducted as part of the lead author's PhD study to develop and implement a framework for aging well in the Torres Strait in Far North Queensland, Australia. The islands of the Torres Strait are located between the northern tip of Australia and Papua New Guinea. There are over 100 islands with Torres Strait Islanders permanently living in 18 island communities and two mainland communities on the Northern Peninsula Area (the northern most tip of Australia) (50). Torres Strait Islander peoples are a culturally distinct First Nation population in Australia, predominately of Melanesian ethnicity but due to the settlement of traders, explorers, and colonizers have a diverse and mixed ancestry (50). Torres Strait Islander peoples are sea-faring people whose culture has been influenced by peoples from Australia, Papua, and the Austronesian region (51). Early Torres Strait life was based on subsistence living with communal life revolving around hunting, fishing, gardening, and trading. Fishing remains the main economic activity across the region (50). The PhD study, to collaborate with local primary health care centers in the Torres Strait region to develop an aging well framework, follows a longstanding research and clinical partnership with local health services and community groups. Community members expressed a desire to examine what aging well meant for their older adults and how they could be supported to age well into the future. The findings of this review were used to assist with analysis of local needs and priorities.

Scope and Aims of Review

Globally, there are between 370 and 500 million Indigenous peoples who live in over 90 countries (8). Within specific Indigenous populations, there are often different cultural groups, each with distinct culture, language, beliefs, and practices. This scoping review included articles relating to many Indigenous populations, each with preferred terminology when referring to their people. The lead author of the review is a non-Indigenous clinical researcher supported by a wider research team and advisory panel of Indigenous and non-Indigenous academics, researchers, and clinicians. Together, the author group respectfully agreed that using the term Indigenous throughout the review would be inclusive to all participants across all studies.

Aspects of aging well relating to specific Indigenous groups have been documented, and a scoping review has been conducted on exploring successful aging amongst North American older Indigenous peoples (52). However, no systematic review has been conducted to explore similarities across wider Indigenous populations. The intent of this paper is not to suggest all Indigenous peoples hold the same perspectives of aging well and that a generic Indigenous model of aging well can be developed. The aims of this scoping review were to: (i) explore what aging well means for different Indigenous populations; (ii) compare concepts of aging well for these populations with non-Indigenous perceptions; and (iii) identify gaps in the literature on aging well for Torres Strait Islander populations to inform further research.

The following questions were developed to meet the aims of the review:

1. What literature exists and where are the gaps on what aging well means to Indigenous peoples?
2. What is the quality of the literature on aging well for Indigenous peoples?
3. What are the domains of aging well for Indigenous peoples?
4. What are the enablers and barriers to aging well for Indigenous peoples?

METHODS

A scoping review methodology was selected as the preferred approach as it allows broad concepts to be addressed, generates key concepts, and identifies gaps in the literature whilst using a structured systematic methodology (53, 54). Furthermore, scoping review methodology enables the inclusion of both qualitative, quantitative, and mixed methods studies (53, 54). The scoping review methodology outlined by Arksey and O'Malley (53) and enhanced by Levac et al. (55), was employed. This methodology increases the rigor and reliability of review findings (53). As recommended by Levac et al. (55) and Daudt et al. (56), a quality assessment component was included in the review. The Quality Assessment Tool for Studies with Diverse Designs (QATSDD) (57) was applied to assess the quality of included literature. However, as scoping reviews are intended to capture a broad range of literature regardless of study design (53, 54), no studies were excluded from this review based on the quality appraisal. The PRISMA Extension for Scoping Reviews (PRISMA-ScR) guidelines and checklist were used to guide the reporting for this scoping review (58).

Literature Search

The search strategy included an electronic database search and a website search. Search terms from key relevant publications were reviewed to identify key words in the areas of aging and Indigenous populations. The search was broadened or focused using truncation symbols and Boolean connectors AND, OR, NOT. The following databases were searched using MeSH headings or key words: Medline, CINAHL, PsycInfo, Emcare, PubMed, Embase, Scopus, and Informit. Reference lists of articles

identified through searching of databases were reviewed to identify possible additional sources. A search for gray literature was conducted on the World Wide Web, on websites such as the World Health Organization and on Indigenous-specific websites, such as the Australian Institute of Aboriginal and Torres Strait Islander Studies, Health Info Net, and the Lowitja Institute.

Study Selection

Publications identified in the search were included if they focused on perceptions, attitudes, or experiences of aging, or domains of aging well, or barriers and enablers of aging well for Indigenous peoples. Aging well and all associated terms were included; successful aging, positive aging, good old age, active aging, robust aging, healthy aging, productive aging, vital aging, optimal aging, and harmonious aging. The United Nations states that there is no formal universal definition of "Indigenous peoples" but Indigenous peoples are identified by their social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live and are frequently marginalized within their own countries (8, 59). Articles were included where participants were described as Indigenous or recognized other titles for example First Nations, Aboriginal, Māori, Alaska Natives, and American Indians.

Publications identified in the searches were charted in Microsoft Excel for evaluation and eligibility assessment (54). The lead author (RQ) screened titles and abstracts using the inclusion/ exclusion criteria outlined in **Table 1**. Two authors (RQ, SR) independently read the full text of articles, applying the inclusion/exclusion criteria, and described the study characteristics. Where outcomes of eligibility assessment differed and remained unresolved after discussion, authors MRM or SL were consulted for a consensus agreement. Publication characteristics charted were source of article, year of publication, Indigenous population of study participants, aim or purpose of study, methodology including design and analysis of data, and study outcomes.

Quality Appraisal

The aim of critical appraisal within a systematic review methodology is to evaluate whether the studies included in the review are accurately and completely described to assess for validity, rigor, and trustworthiness (60). Including a quality appraisal of publications within a scoping review methodology can assist with interpretation of results and facilitate the uptake of findings into policy and practice (55, 56, 61). The QATSDD is a 16-item tool that generates scores from 0 to 42 and has demonstrated good reliability and validity for use in the quality assessment of a diversity of studies, which include qualitative and quantitative work (57). Two authors, RQ and SR independently applied the tool to the 32 included studies. Where discrepancies in scores arose, consensus was reached through discussion. The scoring outcomes are included in **Table 2**.

Analysis

A coding framework was developed by the authors based on the literature and research questions. Data from all extracted papers were deductively coded using the framework, employing NVivo 12® qualitative data software V12 (QSR International) to manage the data. Themes were created based on the identification of patterns from the coded data through use of reflexive thematic analysis methodology (91, 92). Themes and potential domains of aging well were discussed between RQ, MRM, and SR until consensus was achieved and the final themes derived.

TABLE 1 | Inclusion/exclusion criteria for scoping review papers.

Criterion	Inclusion	Exclusion
Publication focus	Perceptions of, attitudes to, concepts of, cultural aspects of, definitions of, aging well and associated terms. Discussion of domains of aging well. Barriers and enablers to aging well.	Perspectives of aging well (and associated concepts) or measures of aging well of Indigenous peoples that were incorporated into wider cultural groups. Focus on specific diseases of aging. Focus on cellular or biological aging. Focus on older age but not perspectives of aging well (or associated terms).
Population	Indigenous peoples worldwide	
Language	Published in English	
Time period	Published between 2000 and 2020	
Type of article	Original research including qualitative, quantitative and mixed methods. Gray literature, government, peak bodies or organizational reports, website information. Full text available.	Literature reviews (relevant articles from these included), commentaries, editorials, book reviews, letters to the editor, or where the full text was not available.

RESULTS

Search Results

Database searching identified 1,282 potential papers with 40 articles identified through additional sources. After the exclusion of duplicates, 765 were subjected to title and abstract review. Of these, 135 publications were selected for full text review with 32 of these publications meeting the inclusion criteria and included in the review (**Figure 1**).

Description of Studies

Table 2 provides a summary of the characteristics of the 32 included publications. The majority of the publications ($n = 27$) used qualitative methodology, four publications used quantitative methodology, and one publication was a biographical account. Twenty-seven articles were published in peer reviewed journals, two were published reports, and three were published theses. Indigenous populations that were the focus of the included studies were: Metis, Canada ($n = 2$); Inuit, Canada ($n = 6$); First Nations, Canada ($n = 3$); Alaska Natives, United States of America (USA) ($n = 10$); Native Hawaiian, USA ($n = 2$); Aboriginal and Torres Strait Islander, Australia ($n = 6$);

TABLE 2 | Characteristics of included publications ($N = 32$).

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings	QATSDD score
Aboriyl and Favel (62)	Marie's story of aging well: Toward new perspectives on the experience of aging for Aboriginal seniors in Canada.	Metis, Canada	To consider the construction of a framework of healthy aging for Aboriginal peoples in Canada.	Conference paper Biographical account	Documented the significance of ongoing contributions to community life, transmission of accumulated knowledge, and wisdom to younger generations and the connection with cultural traditions.	N/A
Baron et al. (63)	Aging, health and place from the perspective of Elders in an Inuit community.	Inuit, Canada	To explore the perspectives of Inuit Elders on the relationship between aging, health and place.	Qualitative In-depth interviews with Inuit Elders aged 50–86 ($n = 20$) Thematic analysis	Documented spending time with children, having social support, living in houses adapted to aging health conditions, having access to community activities and services, and time spent on the land as the main resources supporting health. Stressed the importance of being able to grow old in their own community.	22
Baron et al. (64)	The social determinants of healthy aging in the Canadian Arctic.	Inuit, Canada	To identify social determinants of health associated with healthy aging.	Quantitative Survey data from a larger national survey Respondents aged over 50 ($n = 850$) Holistic indicator of healthy aging used Descriptive analyses used including multivariate multinomial regressions	Social determinants of health associated with the "Good health" profile related more to social relationships and participation, those associated with the "Intermediate health" profile related more to economic and material conditions.	32
Baskin and Davey (65)	Grannies, elders, and friends: Aging Aboriginal women in Toronto.	First Nations, Inuit and Metis, Canada	To further the knowledge about seniors/Elders on their roles; perspectives on aging, health, and wellbeing; concerns; and needed services.	Qualitative Story-telling circle ($n = 10$) and individual interviews ($n = 2$) with women aged 60–75 Thematic analysis	Documented the use of humor and laughter, ongoing processes of teaching and learning, effects of residential school system, value of kinship and community relationships, and friendships.	19
Boyd (66)	"We did listen." Successful aging from the perspective of Alaska Native Elders in Northwest Alaska.	Alaska Natives, United States of America	To establish a deeper understanding of how Alaska Native Elders in Northwest Alaska understand and experience successful aging to inform program development and service delivery.	Qualitative (Thesis) Phenomenological study Semi-structured interviews with Elders ($n = 14$)	Documented engagement with family and community, self-awareness and care, and a sense of gratitude as essential elements of successful aging. Elders who age successfully listened to and learned from their Elders, enact traditional values and practices, and pass wisdom and knowledge to future generations.	42

(Continued)

TABLE 2 | Continued

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings	QATSDD score
Brooks-Cleator and Lewis (67)	Alaska Native Elders' Perspectives on physical activity and successful aging.	Alaska Natives, United States of America	To explore how Alaska Native Elders perceive the role of physical activity as they age and its contribution to successful aging.	Qualitative Semi-structured interviews (n = 41) Thematic analysis	Documented being physically active is important for successful aging. Being an Elder means being able to actively participate in subsistence activities and teach others subsistence. Engaging in physical activity was not just seen as a personal responsibility to maintain health and age successfully, but also to improve or maintain physical, mental, emotional, and spiritual health; and/or to enable continued participation in subsistence activities rooted in their culture and traditional roles as Elders.	38
Brooks-Cleator et al. (68)	Community-level factors that contribute to First Nations and Inuit older adults feeling supported to age well in a Canadian city.	First Nations and Inuit, Canada	To address what community-level factors contribute to Indigenous older adults (aged 55 years and over) feeling supported to age well in the city of Ottawa.	Qualitative CBPR* approach Semi-structured interviews, focus groups, and photovoice with First Nations and Inuit older adults (n = 32) Thematic analysis	Documented two main areas in which participants felt they could be better supported to age well: the social environment (responsive health and community support services, respect and recognition, and communication and information) and physical environment (transportation, housing, accessibility, and gathering space).	37
Browne et al. (69)	Listening to the voices of native Hawaiian Elders and 'Ohana caregivers: Discussions on aging, health, and care preferences.	Native Hawaiian, United States of America	To investigate health and care preferences that offer the potential for improving wellbeing in later life for Native Hawaiian Elders.	Qualitative Semi-structured listening meetings (n = 6), involving community-dwelling kupuna (n = 24) and 'ohana caregivers (n = 17) aged 60–94 Constant comparative method of analysis	Documented challenges with aging and caregiving and the influence of culture and social stressors on health needs and care preferences. Affordable, accessible, and acceptable programs and policies that can respond to the growing health and care needs of native elders and family caregivers are needed.	35
Browne and Braun (70)	Away from the Islands: Diaspora's effects on Native Hawaiian Elders and families in California.	Native Hawaiian, United States of America	To examine reasons for migration and perspectives on aging and caregiving in a sample of Native Hawaiian Elders and family caregivers residing in Southern California.	Qualitative Key informant interviews (n = 10) and kupuna and 'ohana caregivers focus group (n = 20) Constant comparative method of analysis	Documented concerns about challenges associated with aging and caregiving, and how cultural traditions and values continue to shape caregiving and service preferences.	38

(Continued)

TABLE 2 | Continued

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings	QATSDD score
Butcher and Breheny (71)	Dependence on place: A source of autonomy in later life for older Maori.	Māori, New Zealand	To examine the ways that place influences experiences of aging for older Māori in New Zealand.	Qualitative Interviews with participants aged 66–79 ($n = 8$) Thematic analysis	Documented attachment to place provided the foundation for experiences of aging. Through connection to place, the participants drew on a comforting and comfortable dependence on land and family to enable autonomy in later life. A good old age depended on balancing competing demands of living in wider society with attachment to place and Māori identity in later life.	24
Collings (72)	"If you got everything, it's good enough:" Perspectives on successful aging in a Canadian Inuit community.	Inuit, Canada	To examine Inuit definitions of successful and unsuccessful aging.	Qualitative Structured interviews ($n = 38$)	Documented successful old age is not characterized by individual good health, but by the ability to successfully manage declining health. Important determinants of a successful Elderhood are not material but ideological, such as, attitudes in late life, willingness to transmit wisdom and knowledge to juniors.	20
Coombes et al. (49)	First Nation Elders' perspectives on healthy aging in NSW"", Australia.	Aboriginal and Torres Strait Islander, Australia	To examine the perspectives of Australian First Nation people about healthy aging.	Qualitative Yarning Circles ($n = 8$) with adults aged 45 and over ($n = 76$)	Documented key issues around healthy aging including; the impact of chronic disease, community and connections, sharing knowledge of history and culture. Barriers to aging well-described. Healthy aging viewed as the ability to continue in key roles as cultural leaders and the keepers of traditional knowledge.	32
Edwards (73)	Taupaenui Māori Positive Aging.	Māori, New Zealand	To explore the characteristics of positive Māori aging.	Qualitative (Thesis) Semi-structured interviews with older Māori ($n = 20$) Thematic analysis	Documented Māori-specific domains of successful aging are stewardship, connectedness transmission, contribution, adaptability, and self-determination with the overarching theme of realized potential.	36
Gallardo-Peralta and Sanchez-Moreno (74)	Successful aging in older persons belonging to the Aymara native community: Exploring the protective role of psychosocial resources.	Aymara, Chile	To analyse the process of successful aging in older persons.	Quantitative Cross-sectional Questionnaire to Aymara aged >60 ($n = 232$) comprised of validated measurement scales for successful aging. Descriptive statistics and a hierarchical regression analysis for the successful aging	Documented successful aging is positively related with community integration, social support from informal systems (social groups), quality of life, and religiousness (forgiveness). In contrast, successful aging is negatively related with depression.	39

(Continued)

TABLE 2 | Continued

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings	QATSDD score
Hopkins et al. (75)	Keeping busy: a Yup'ik/Cup'ik perspective on health and aging.	Alaska Natives, United States of America	To explore cultural beliefs and practices of health and wellbeing of Yup'ik/Cup'ik women in two rural villages in southwestern Alaska.	Qualitative Semi-structured interviews with females aged 38–89 ($n = 15$) Thematic analysis	Documented healthy aging is defined within the framework of subsistence living; keeping busy, walking, eating subsistence foods, and respect for elders. These beliefs and practices promote a strong, active body and mind as vital components to healthy aging.	23
Laditka et al. (76)	Attitudes about aging well among a diverse group of older Americans: implications for promoting cognitive health.	American Indian, United States of America	To examine perceptions about aging well in the context of cognitive health among a large and diverse group of older adults.	Qualitative 42 focus groups with 4 American Indian focus groups ($n = 34$) Constant-comparison methods were used to analyze the data by ethnic group	Documented American Indians did not relate aging well to diet or physical activity. Aging well-included; living to advanced age, having good physical health, having a positive mental outlook, being cognitively alert, having a good memory, and being socially involved.	21
Lewis (77)	Successful aging through the eyes of Alaska Natives: exploring generational differences among Alaska Natives.	Alaska Natives, United States of America	To explore the concept of successful aging from an Alaska Native perspective, or what it means to age well in Alaska Native communities.	Qualitative interviews with participants aged 26–84 from 6 tribal communities ($n = 15$) Grounded theory	Documented aging successfully is based on local understandings about personal responsibility and making the conscious decision to live a clean and healthy life. Poor aging characterized by a lack of personal responsibility, or not being active, not being able to handle alcohol, and giving up on oneself.	20
Lewis (78)	Successful aging through the eyes of Alaska Native Elders. What it means to be an Elder in Bristol Bay, AK"".	Alaska Natives, United States of America	To explore successful aging from an Alaska Native perspective or what it means to reach "Eldership" in rural Alaskan communities.	Qualitative interviews with participants aged 61–93 ($n = 26$) Thematic analysis	Documented four elements of "Eldership" or what Alaska Native Elders believe are important characteristics to becoming a respected elder; emotional wellbeing, community engagement, spirituality, and physical health.	30
Lewis (79)	The importance of optimism in maintaining healthy aging in rural Alaska.	Alaska Natives, United States of America	To develop a model of successful aging for Alaska Native Elders in Bristol Bay, Alaska.	Qualitative Interviews with participants aged 61–93 all Elders from 6 communities ($n = 26$) Grounded theory	Documented four themes of successful aging: emotional wellbeing, community engagement, spirituality, and physical health A positive outlook on life was found in each of the four elements of successful aging.	24
Lewis (80)	The future of successful aging in Alaska.	Alaska Natives, United States of America	To explore the concept of successful aging from a younger urban Alaska Native perspective and explore if they believe they will achieve a healthy older age.	Qualitative interviews with participants under 50 years from 4 Alaskan Native tribal groups ($n = 7$) Grounded theory	Documented Alaska Natives see the inability to age well as primarily due to the decrease in physical activity, lack of availability of subsistence foods and activities, and the difficulty of living a balanced life in urban setting.	22

(Continued)

TABLE 2 | Continued

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings	QATSDD score
Lewis (B1)	The role of the social engagement in the definition of successful aging among Alaska Native Elders in Bristol Bay, Alaska.	Alaska Natives, United States of America	To explore the role of social engagement (family and community support) in Alaska Native Elders' definitions of successful aging, why social engagement is important to the health and wellbeing of Alaska Native Elders.	Qualitative Interviews with Elders ($n = 25$) Content analysis	Documented the importance of family and community, not only as a source of support but also as part of their culture and identity. Providing family support sustained meaningful roles, which contributed to wellbeing, optimism and generative behaviors.	33
Lewis (B2)	What Successful Aging Means to Alaska Natives: Exploring the reciprocal relationship between the health and wellbeing of Alaska Native Elders.	Alaska Natives, United States of America	To highlight the role of the community in Alaska Native Elders' definitions of successful aging, and explores how the Elders contribute to the health and resilience of rural communities.	Qualitative Interviews with 26 Elders ($n = 26$) Grounded theory	Documented the importance of family and community support, which contributes to optimistic attitude toward life. This support provides the Elders with a sense of purpose and having a role in their family and community, directly impacting their health and wellbeing, and enabling them to remain active in their homes and communities.	32
Pace (B3)	Meanings of memory: Understanding aging and dementia in First Nations communities on Manitoulin Island, Ontario.	First Nations, Canada	To understand expectations for successful aging among Aboriginal peoples on Manitoulin Island.	Qualitative CBPAR*, Ethnography and Phenomenology Semi-structured interviews with seniors, people with dementia, informal family caregivers, health care providers, and traditional healers in seven First Nations communities. Focus groups with nurses and personal support workers	Documented aging as a natural process. A successful old age characterized by: acceptance, good overall health, making an effort to maintain health through behaviors such as exercise, eating well and avoiding alcohol and tobacco, staying engaged in social activities, participating in spiritual and cultural activities, having a positive attitude and a sense of purpose, and maintaining autonomy.	40
Pace (B4)	"Place-ing" dementia prevention and care in NunatuKavut, Labrador.	Inuit, Canada	To explore experiences of transitions into aging and dementia in NunatuKavut, Labrador.	Qualitative CPAR* Photovoice approach using interviews with participants aged 50 > ($n = 14$) Phenomenological thematic analysis	Documented the prominence of culture and the natural environment in descriptions of health promotion and care trajectories. These factors may contribute to healthy aging, protect against cognitive decline, and support the maintenance of identity for people living with dementia.	33
Pearse et al. (B5)	Growing old in Kempsey: Aboriginal people talk about their aging needs.	Aboriginal, Australia	To seek more information about the aging needs of Aboriginal people on the North Coast of New South Wales, Australia and explore the lived experience of Aboriginal people in Kempsey as they age.	Qualitative (Report) Semi-structured interviews with participants from 9 communities ($n = 30$) Thematic analysis	Documented that family relationships and culture are important. Raising grandchildren is valuable. Barriers faced in later age also documented.	25

(Continued)

TABLE 2 | Continued

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings	QATSDD score
Radford et al. (15)	Sharing the wisdom of our Elders; Final report.	Aboriginal and Torres Strait Islander, Australia	To highlight the healthy aging stories from the participants of the Koori Growing Old Well Study (KGOWS)	Qualitative (Report) Integrated quantitative findings from the KGOWS cohort 118 responses to an open ended survey question and semi-structured interviews with service providers	Documented themes to aging well that included: Connections to Country and culture; respect yourself, the Elders and all the mob; resilience; getting together, yarning, passing on knowledge; keeping healthy to live a long life; saying no to smoking, alcohol and drugs; and education.	24
Ranzijn (86)	Active aging-another way to oppress marginalized and disadvantaged elders? Aboriginal Elders as a case study.	Aboriginal, Australia	To question whether the concept of active aging unintentionally devalues the life experiences of disadvantaged groups of older people.	Qualitative 5 yarning circles with participants ($n = 20$)	Documented that active aging presents a narrow image of aging, which does not accord with the experiences and priorities of many older people, and it alienates large groups of marginalized older people and reinforces social exclusion. A model of aging, around the concept of "authentic ageing," that respects and acknowledges the unique and valued role of elders which encompasses more than aging bodies is preferable.	10
Smith et al. (87)	Inuplaq Elders study: aspects of aging among male and female elders.	Alaska Natives, United States of America	To determine if age and gender subsets of Elders in urban and rural locations present differences in self-reported health, physical and mental functioning, functioning of daily activities, body mass index, nutrient intake and food insecurity.	Quantitative Comparative survey of Inuplaq Elders ($n = 100$)	No significant differences were found by age, gender or location for demographic variables. Data indicate that Alaskan Inuplaq Elders are aging well and reporting few physical and mental problems.	37
Waters and Gallegos (88)	Aging, health, and identity in Ecuador's indigenous communities.	Indigenous, Ecuador	To investigate the perceptions regarding the ability of family and community networks to provide adequate and appropriate support for older persons in the context of their perceptions of health, health care, and aging.	Qualitative Focus groups ($n = 15$) with participants aged 60> ($n = 148$) interviews with community leaders, local health care professionals, and traditional healers ($n = 10$) Grounded theory	Documented that aging defined as successful in terms of capacity to work the land and participate actively in community affairs. Perceptions of aging are shaped by chronic illness, fatigue, deteriorating sensory capacities, and vulnerability to accidents. Barriers to health care are exacerbated among aging members of indigenous communities.	28

(Continued)

TABLE 2 | Continued

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings	QATSDD score
Waugh and Mackenzie (89)	Aging well from an urban Indigenous Australian perspective.	Aboriginal and Torres Strait Islander, Australia	To explore perspectives of older Indigenous Australians about their health and wellbeing.	Qualitative Interviews with participants aged over 45 yrs (n – 6) Phenomenology	Documented important considerations for aging well that related to four main themes of: personal identity, family, community, and perception of health and aging.	36
Wettasinghe et al. (90)	Older Aboriginal Australians' health concerns and preferences for healthy aging programs.	Aboriginal and Torres Strait Islander, Australia	To explore participants' health concerns, preferences for healthy aging programs, and receptiveness to technology.	Qualitative Semi-structured interviews with Aboriginal and Torres Strait Islanders Australians aged >50 years from regional and urban communities (n – 34) Grounded theory approach.	Documented that a successful healthy aging program model includes physical and cognitive activities, social interaction, and health education. The program model also provides culturally safe care and transport for access as well as family, community, cultural identity, and empowerment regarding aging well as central tenets.	35
Wright-St. Clair et al. (43)	Ethnic and gender differences in Preferred Activities among Māori and non- Māori of advanced age in New Zealand.	Māori New Zealand	To explore active aging for self-nominated important everyday activities.	Quantitative Participants in the LILACS**** study (n – 649, 252 Māori and 397 non-Māori) Activities were coded and categorized and then put into one of nine domains.	Important activities for older Māori people were: gardening, reading, walking, cleaning the home, organized religious activities, sports, extended family relationships, and watching television.	23

*Community-Based Participatory Action Research.
**New South Wales.
***Alaska.
****Life and Living in Advanced Age Cohort Study.

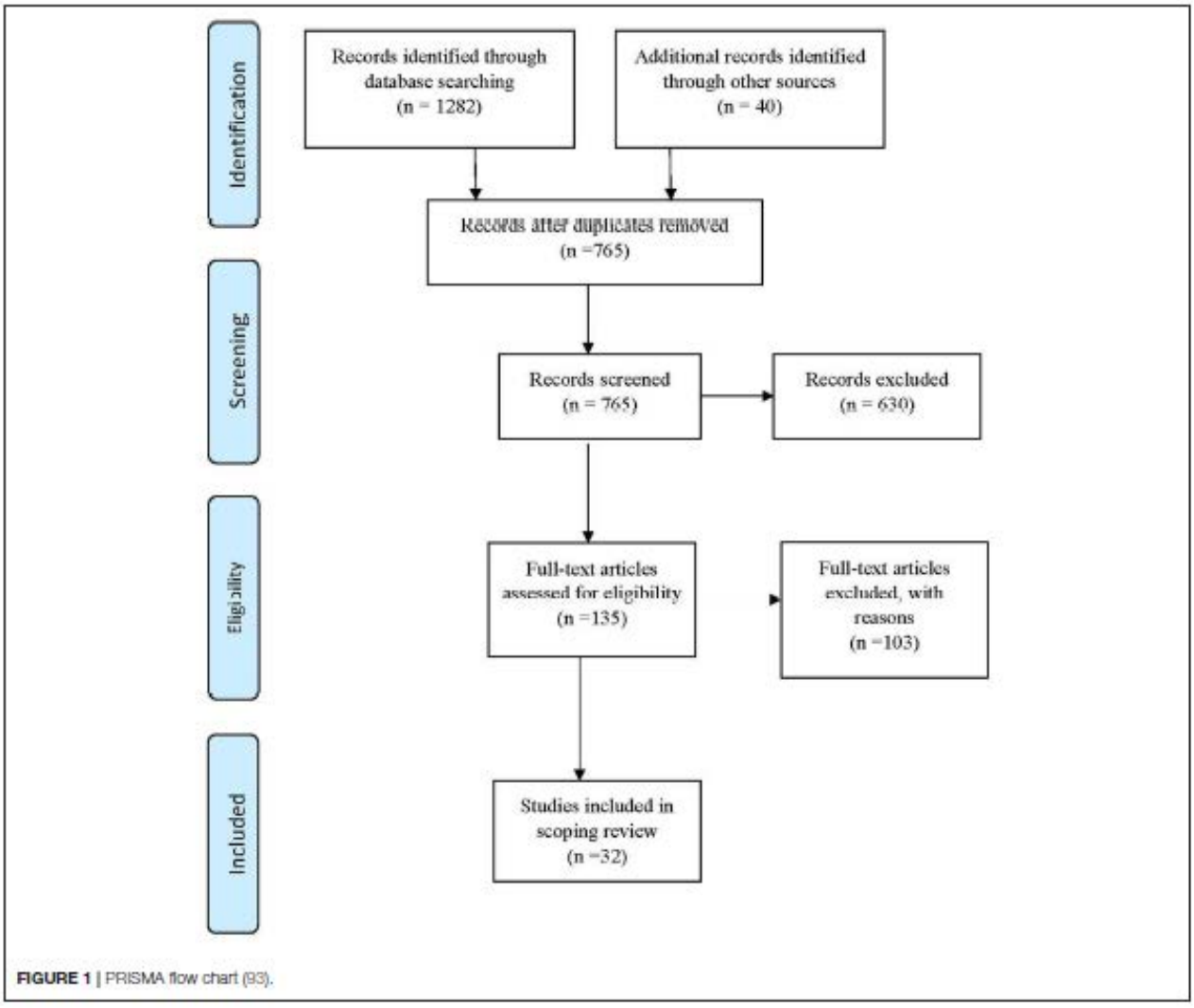

FIGURE 1 | PRISMA flow chart (93).

Maori, New Zealand ($n = 3$); Aymara, Chile ($n = 1$); American Indian, USA ($n = 1$); and Indigenous, Ecuador ($n = 1$).

Quality of the Included Studies

The methodological quality of the included publications was assessed from 10 through to 42 (average = 29). Whilst the biographical account (62) did not fit into a methodological framework and was therefore rated N/A, it was important to include it to ensure all Indigenous voices were heard. The three published theses (66, 73, 83) all scored highly as they included detailed methodological procedures. A common limitation of the qualitative studies was a lack of evidence to determine reliability of the analytical process (15, 49, 62, 63, 65, 75–77, 79, 80, 84–86). Other limitations noted across all study designs included lack of evidence of co-design (62, 64, 65, 72, 76, 80, 86, 88, 94), evidence of sample size considered in terms of analysis (62–65, 67–69, 71, 72, 75, 77, 81, 82, 84–86, 90, 94) and detailed recruitment data (62, 63, 69, 71, 72, 76–81, 85, 86, 94).

SYNTHESIS OF FINDINGS

Across all Indigenous populations, there were consistently shared similarities that reflected perceptions of what aging well means for Indigenous peoples and challenges that impacted Indigenous peoples' ability to achieve good health and wellbeing in later life. Four major themes were identified: (1) achieving holistic health and wellbeing; (2) maintaining connections; (3) revealing resilience, humor, and a positive attitude; and (4) facing the challenges. These themes are interrelated, each having influence on, and being influenced by, the other themes, demonstrating that aging well is a holistic concept with reliance on connections to person, place and culture and influenced by the social determinants of health (**Figure 2**).

Achieving Holistic Health and Wellbeing

To achieve health and wellbeing in later life, several factors were identified that contributed to the perception of aging well. Those

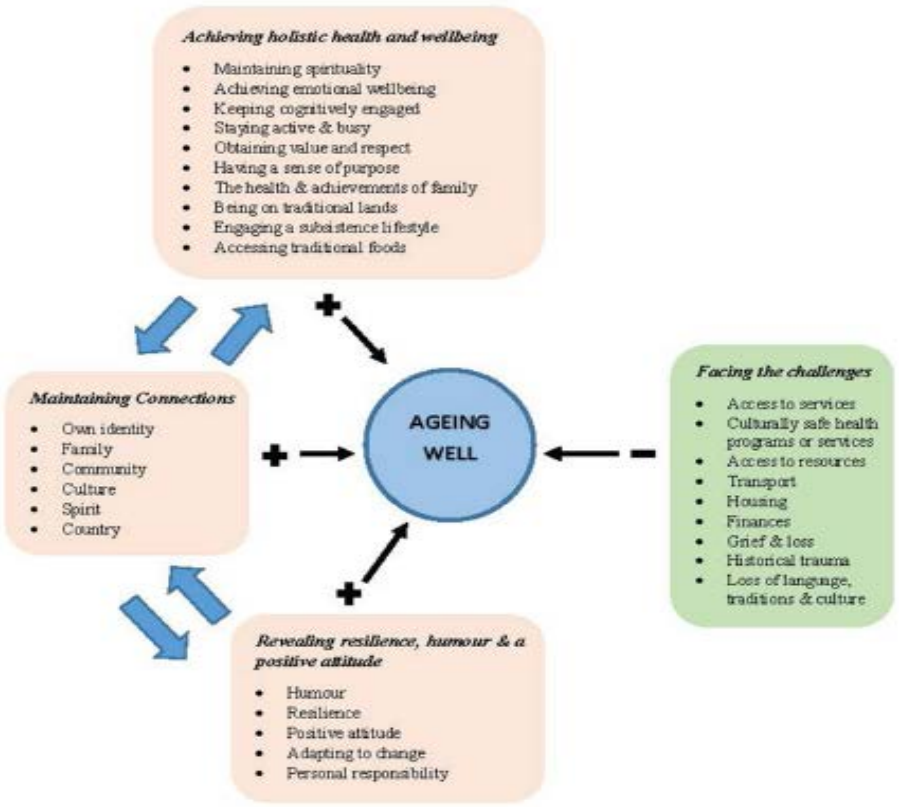

FIGURE 2 | Concept of ageing well as described in the scoping review.

factors included: maintaining spirituality (15, 66, 69, 73, 74, 77–79, 83); achieving emotional wellbeing (15, 72, 73, 75, 77, 79, 80); keeping cognitively engaged (66, 73, 76, 83–85); staying active and busy (15, 49, 64, 66, 67, 73–76, 83, 87); obtaining value and respect (15, 66, 68, 73, 75, 77, 78, 89, 90); and having a sense of purpose (83, 88, 90, 94). Furthermore, the impact of the health and achievements of the wider family (71, 73, 85), being on traditional lands (15, 63, 71, 73, 80, 81, 84, 87), engaging in subsistence lifestyles (66, 67, 71, 75, 84), and accessing traditional and healthy foods (15, 66, 69, 70, 73, 75, 77, 78, 81, 83, 87) all contributed to the attainment of health and wellbeing in older age. These concepts are described in the following sub-themes of: everything healthy—mind, body and spirit; my job is done; and big stress relief when out on land. Overwhelmingly, however, it was a combination of all of these factors, along with a holistic approach to a healthy lifestyle, which contributed to holistic health and wellbeing (15, 66, 70, 72, 73, 75, 80, 83, 84, 89, 90), that is described in the sub-theme of balance—foundations for a long life.

Everything Healthy—Mind, Body, and Spirit

Having a good spirit was identified as providing a balance in life and a sense of strength (83). Through maintaining spirituality, there was a sense of guidance toward how to age well (15, 66, 73, 74, 79, 83) while alleviating worry (78), and keeping an optimistic (69) and positive attitude (15, 78).

> *"... one of the things that's been most important in my life has been my spirit... it is something that I had taken care of because to me it's the governing body. If I hadn't got that right, I don't think anything goes right."* [Older Maori, (73) p. 189]

Having emotional stability and being satisfied with past life decisions was viewed as an indicator of aging well (15, 72, 73). A poor mental state was reported as due to too much worry (72, 77).

> *"Ones that don't worry too much stay young. Ones that worry too much age faster."* [Alaskan Native Elder (79) p. 1,525]

Staying cognitively active was part of a holistic approach to aging well (66, 73), achieved through lifelong learning (15, 73) and engagement in cognitively stimulating activities (66, 73, 76, 83–85).

> *"I'm more into puzzles, using my head or brain to figure out things"* [Older First Nations Canadian, (83) p. 68]

Physical health was viewed as important (15, 49, 66, 67, 73, 75, 83) but valued through appreciating how engagement in physical activities could provide opportunities for social connectedness (83), providing a sense of purpose (66, 73, 83, 88), improving quality of life (73, 90), promoting cultural continuity (64), and, in a practical sense, providing access to food (64). Physical activities were rarely described as formal or structured, such as visits to a gym, but were more likely to be achieved as a consequence of enacting traditional and subsistence living (64, 66, 67, 74, 75, 83), involvement in community activities (66, 76, 83, 87, 90, 94) or carrying out activities of daily living (66, 83).

> *"I think today most of the women are healthy for activity, physical activities. When they go berry picking, they're working using their bodies everything. When we are cutting fish, we are using everything, our muscles, lifting things"* [Older Native Alaskan, (75) p. 45–6].

My Job Is Done

As part of a holistic approach to aging well, obtaining recognition and respect from both family and communities was viewed as significant (15, 68, 73, 75, 77, 78, 89, 90). Having an appreciation of the wealth of knowledge and wisdom an older adult can share elicited feelings of honor and pride and made the older adults feel supported and valued in the work they do (15, 66, 73).

> *"…they get to feel that they are still important, that they are of value that they have something of value to still give. You know, that they're not just pushed aside. You see I'm always conversing with my older ones, you know, that their opinion is important."* [Older Maori, (73) p. 205]

Equally, the wellbeing and achievements of the wider family unit contributed to older adults' measures of aging well. The accomplishments of children and grandchildren created a sense of pride and satisfaction for the older adult (71, 73, 85).

> *"What makes me happy is seeing the family happy, all my family. You know all of us, all the kids. Yeah, yeah that's what makes me happy. I don't really need that much for myself"* [Older Maori (71) p. 53]

Big Stress Relief When Out on Land

Being on traditional lands was found to promote wellbeing, which in turn influenced perceptions of aging well (15, 63, 71, 81, 84, 87). Not only a place of childhood memories (63), being on traditional lands also signified a symbolic connection to culture and language (15, 63, 73). There was a deep and fundamental connection to the natural environment that facilitated both health and mental balance and where continued engagement was central to aging well (15, 73, 80).

> *"When she's on the land too that's when her stress is all come out, like less stress, good stress relief, because that's where she pretty much grew up so it's big stress relief when she finally goes out on the land."* [Older Inuit (63) p. 140]

Several studies discussed the contribution that subsistence living made to aging well (66, 67, 71, 75, 84). A subsistence way of living was seen as a healthy way to age for several reasons including: as a way to engage with family, a means to look after the environment, opportunity to connect to the land and to connect to past generations whilst engaging in physical exercise and providing traditional food, clothing, and shelter (66, 67, 75, 84). Furthermore, participation in subsistence living gave a sense of identity and connection for the older adult to themselves and others (66).

> *"every spring… we start to gather off of the land and that's what keeps our Elders healthy"* [Alaskan Native Elder, (67) p. 299]

Access to traditional foods also played a part in perceptions of aging well (66, 69, 70, 73, 77, 78, 81, 83, 87). Traditional foods were viewed as healthy, making both the mind and spirit strong. Food was more than nourishment, symbolizing a connection to culture through traditions and ceremonies (69).

> *"In years back, before I was born, I know there were elders that were very healthy and strong because they have their food, their native food, not mixed up with the kassaq [white person] food. Although they have a hard life, they were healthy, strong, because of their native food. Seal oil, dried fish."* [Older Native Alaskan, (75) p. 46]

Balance—Foundations for a Long Life

Aging well was seen as a combination of the factors reported above and characterized by a holistic approach to living life well and being healthy (15, 66, 70, 72, 73, 75, 77, 80, 83, 84). Several studies referred to the balance in life between physical, spiritual, mental, and emotional realms (15, 77, 80, 83, 84). This often involved working hard, keeping busy, abstaining from drugs, smoking and alcohol, taking positive measures to promote and maintain health, and having an active participation in spiritual and cultural life (15, 66, 73, 75, 77, 83, 84, 89, 90).

> *"I live a balanced life without alcohol and drugs. I take care of myself and consciously eat healthy foods regularly, exercise, don't drink or use drugs. Live spiritually."* [Older Native Alaskan, (77) p. 391]

Maintaining Connections

Aging well was fostered by the strength of a person maintaining connections to their own identity (66), their family (15, 49, 63–66, 69, 70, 72, 73, 77, 79–83, 85, 89), friends (65, 72), the community (15, 49, 66, 73, 81–83, 89), to their culture (15, 49, 66, 70, 73, 77, 80, 84, 89), spirit (15, 65, 66, 70, 73), and traditional lands

(15, 66, 67, 70, 71, 73, 84). These concepts are explored in the sub-themes of: being with my grandchildren keeps me young; people look out for each other; and it's not about age, but about knowledge and wisdom.

Being With My Grandchildren Keeps Me Young

A significant theme across studies was the importance of the connection to, and relationships with, kin, which promoted aging well (15, 49, 63–66, 69, 70, 72, 73, 77, 79–83, 85, 89). These relationships often provided the older adult with a sense of purpose in as much as they had a role within the family (66, 77, 81, 82, 85, 89) and were motivated to look after their own health in order to be able to look after their family (66, 73, 89). Participants often reported how looking after grandchildren was rewarding, and a source of joy (63, 65, 66, 73, 85, 89). The wellbeing of the wider family was fundamental to the wellbeing of the older adult (73) and the strong family ties provided opportunities for the older adult to pass on their knowledge and values (15, 66, 83), whilst taking pride in the achievements of the family (65, 83). Families also provided the emotional and physical support that facilitated the older adult staying on traditional lands, and in their own home (83).

> *"Being with my grandchildren keeps me young. I love having them around me. We do fun things together, like go to the socials [at an Aboriginal agency] and we smudge [which is a cleansing ritual] at home. I try to help all my grandchildren and support them as much as I can whenever they need it, but I also teach them that they cannot ask for more than they need."* [Older Aboriginal Canadian, (65) p. 58]

People Look Out for Each Other

Integration within community, or social connectedness, was associated with aging well (15, 49, 64–66, 73–78, 80–84, 90). Community involvement was demonstrated with notions of reciprocity, where these relationships provided mutual benefits (71, 73). For older adults, engagement provided an opportunity to socialize, access food, and receive community support with chores such as housework and transport (66, 82–84). In return, communities benefited from older adults sharing their knowledge, wisdom, and experience, as well as assisting the younger generations with guidance and support (15, 66, 77, 80, 82). Socialization through connecting with community gave older adults a sense of belonging, promoted friendships and opportunities to connect with friends, and provided occasions to reminisce and share memories (15, 73, 78, 84). Throughout was the underlying idea of the importance of caring for others (15, 73).

> *"…to be able to enjoy life is to be able to live happily with your neighbor. Without that life is not worth it really. I like meeting people and I have a great love for the community that I live in but to make that possible you've got to love the people that are living in that community with you. I like to make myself available for anything, any help that is required regardless. If I can do it, I will do it."* [Older Maori, (73) p. 207]

Conversely, separation from family, friends and community was shown to have a negative impact on mental health. Increased feelings of loneliness and isolation was perceived by participants to be a major challenge to aging well. This was magnified when close family members left the community or physical disabilities limited access to social events (63, 83, 88, 90).

It's Not About age, but About Knowledge and Wisdom

Connection to culture was a significant contributor in perceptions of aging well. This included the ability to pass on traditional values, language, beliefs, wisdom, skills, and knowledge (15, 49, 62, 64–70, 72, 73, 75, 77, 78, 81–83, 85–87, 89, 90, 94). Aging well was promoted though the valuing of older adults, enabling them to fulfill a traditional role, resulting in: a sense of purpose and pride; an identity and meaningful role; an opportunity for continued learning; a means for engaging with family and community; a connection to the natural and spirit worlds; an opportunity for reciprocity with family and community; and allowing the older adults to stay involved in physical activities (15, 49, 65, 66, 69, 72, 73, 75, 77, 81–83, 89, 90). Consequently, through their cultural leadership, the older adults felt needed and respected, had improved emotional wellbeing and optimism, had improved life satisfaction, and gained a sense of accomplishment (15, 49, 66, 73, 78, 81–83, 87, 89, 94). Furthermore, cultural leadership gave a platform to provide advocacy for Indigenous voices, strengthened community cohesiveness, and promoted overall health of the community (49, 66, 73, 89).

> *"…I realized I needed to take on a lot of responsibility for the way I acted and the words that I said to people. Now is the time where those my age take all of the teachings we have received and give them back to the community. The community is my extended family. They are all my children; they are all my brothers and sisters; they are the people I love. This is my power. This is what keeps me going, all these people. I really enjoy what I do! I feel great being a part of a community!"* [Older Aboriginal Canadian, (65) p. 60]

Revealing Resilience, Humor, and a Positive Attitude

Elements of this theme revealed how attitude and an approach to life can impact on the perception of aging well. This includes how older adults used humor in their life (65, 66, 73, 83), demonstrated resilience (15, 65, 66, 73, 78–80, 90), maintained a positive attitude (15, 66, 72–74, 76–79, 83–85, 90), adapted to the changes they face (66, 72–75, 79, 83), and took personal responsibility for their health and wellbeing (15, 66, 73, 77, 83, 94). These concepts are described in the sub-themes of: we're lucky we can laugh at ourselves; you have just to pick yourself up and keep going; and aging well is just being who you are and believing in who you are.

We're Lucky We Can Laugh at Ourselves

Humor was used to face the realities of past and present trauma and tragedy and helped participants to maintain a positive attitude (65, 83) and cope with changes (66, 83). In this sense,

humor was a form of resilience and the need to seek enjoyment was of importance (63, 73, 83).

> *"We're lucky we can laugh at ourselves. During my life, I remember there were so many moments of tragedy and drama. Then I look at it from another viewpoint and think, "How stupid is that?" They are all funny! It's just the whole irony of being alive. You look at it and you think, "That was my life. Good God, I could have done better!" But actually, I could have done worse. Aboriginal people can laugh and don't need to hold a grudge."* [Older Aboriginal Canadian (65) p. 52]

You Have Just to Pick Yourself Up and Keep Going

Resilience and stoicism in the face of adversity was significant across studies (15, 65, 66, 73, 78, 90). Findings highlighted how older adults were aging well, despite experiencing a variety of losses. Participants also demonstrated humility and gratitude for people they had in their lives and the abilities they retained as they aged (65, 66, 80). Having a positive attitude meant facing challenges with courage and not giving up, having a sense of purpose, keeping engaged with life, families, community, and making contributions for the good of the wider community (15, 66, 72, 73, 80, 83, 85). Furthermore, having a positive attitude toward life including demonstrating forgiveness, optimism, belief in oneself, and embracing life, were seen as factors that contributed to aging well (15, 65, 66, 72–74, 76, 78, 79, 84, 90).

> *"…you live simply, you live well, you live happily no matter, you are bound to have a few hiccups and some of those hiccups can be dramatic, but you have just to pick yourself up and keep going."* [Older Māori, (73) p. 217]

Conversely, negative feelings of hopelessness, depression, and worry presented challenges to aging well (74, 77, 87, 90). Three studies referred to older adults' feelings of being a burden on family and community (49, 83, 90).

Having a positive attitude also included the willingness to adjust or adapt to changes in ability or circumstances or changes in roles (66, 72–75, 79, 83). These changes were both personal changes as well as changes within the community such as consequences of assimilation or urbanization. Older adults that were seen to be aging well were able to accept the limitations of old age and make adaptions to accommodate those changes (66, 73, 74, 83, 90).

Aging Well Is Just Being Who You Are and Believing in Who You Are

Demonstrating agency and autonomy were seen as factors that promoted aging well with older adults (66, 73, 77, 79, 83, 94). This included gaining and maintaining control over their own life, exercising choice, asserting their needs, managing their own limitations, and staying independent (66, 73, 77, 79, 83). Additionally, taking personal responsibility in managing their health was highlighted. This included having self-awareness and practicing self-care, making good choices in relation to a healthy lifestyle, and taking preventative measures and practicing self-management with regard to chronic disease (15, 66, 73, 77, 94).

> *"Aging well in the community is just being who you are and believing in who you are."* [Older Native Alaskan, (66) p. 63]

Facing the Challenges

Several factors were documented as challenges to aging well including: access to services or health care (49, 63, 66, 68–70, 73, 83, 85, 88, 90); availability of culturally safe health programs or services (15, 49, 65, 68–70, 73, 74, 85, 86, 88–90); access to resources (63, 68–70, 85, 88, 90); transport (49, 63, 68–70, 73, 83, 85, 88, 90); housing (63, 68, 69, 85); finances (49, 69, 70, 73, 83, 85, 86, 88); and environmental adaptions (63, 68, 85). Impacts of colonization such as: grief and loss (15, 63, 65, 66, 85, 90); loss of language and culture (15, 63, 66, 72, 73, 80, 83–85, 87, 89); and historical trauma (15, 49, 65, 73, 83–86, 89, 90) were also viewed as having an effect on the ability to age well. The elements of this theme are described in the following sub-themes of: services have to be the right fit; comfort of housing and money; and loss.

Services Have to Be the Right Fit

Access to mainstream services posed several difficulties for older adults (49, 63, 66, 69, 70, 73, 83, 85, 88, 90). For those living in remote communities, location and availability of services was an issue (63, 68, 69, 88, 90). Lack of transport was frequently cited as being a barrier to service access (15, 49, 63, 68–70, 73, 83, 85, 88, 90). Additionally, older adults were often unaware of the existence services or activities in the local area often as a result of poor information provided to Indigenous communities, or lack of access to computers or Internet to search for or access existing services (63, 68, 70, 85, 88, 90).

> *"There are a lot of people who can help, but not knowing where to go or how to go about getting the information is difficult."* [Older Native Hawaiian, (70) p. 404]

Mainstream services were often reported as expensive and at times were viewed as alienating, promoting further marginalization of Indigenous peoples, and deterring them from accessing care and supports. By contrast, culturally safe programs and services were overwhelming perceived as more appropriate and beneficial. These tended to have a holistic approach, involve community, understand culture and language, and foster trust and respect between providers and older adults (15, 49, 65, 68–70, 73, 74, 85, 86, 88–90).

> *"It's important to have an Aboriginal specific program as they feel welcomed here and they see Auntie's and sisters"* [Older Aboriginal Australian, (49) p. 363]

Comfort of Housing and Money

Issues with housing were significantly detrimental to the ability to age well. Factors included housing, which was poor quality, expensive, and poorly maintained, as well as a lack of availability resulting in overcrowding (63, 68, 69, 85). Houses were often poorly adapted to health conditions, requiring modifications to enable safety and ongoing independence (63, 68, 85).

> *"Main thing is shower is too small and needs to be modified to allow easy access for self and wife. My wife is on walking frame but she will be in a wheelchair sometime in future."* [Older Aboriginal Australian, (85) p. 40]

Better housing options were those that were affordable, safe, secure, accessible, and supportive of older adults' needs as they aged (68).

Poverty was also a challenge to aging well. Many older adults were living under substantial financial pressure. Lack of adequate finances influenced access to healthy (often more expensive) food, suitable housing, transport, medications, health care, and services (69, 70, 83, 85, 86, 88).

> *"I don't get enough money to buy the food I'm supposed to have…I can't buy no fruits and vegetables, they're too expensive."* [Older First Nations Canadian, (83) p. 72]

Loss

The impacts of colonization are deep and wide, and as such, aging needs to be understood through the lens of loss. Loss of family, culture, language, traditions, and land are shared between all Indigenous groups subjected to colonization. Furthermore, social disadvantage, racism, and the ongoing impact of intergenerational and current grief and trauma are all experienced realities (15, 73, 85). Loss of family members and significantly a spouse, meant grieving was an ongoing situation, which affected mental health and wellbeing (63, 65, 66, 85, 90).

> *"It takes a lot of coping with and getting over. It's the hardest thing to lose someone in your family. It's very hard"* [Older Aboriginal Australian, (90) p. 7]

Loss of culture and traditional ways has in many cases led to a more sedentary lifestyle (72, 80, 83). Loss of the connections with family and culture was perceived to contribute to a lack of respect from the younger generation (63, 66, 72, 83, 89). Changes in work and social demands mean families spend less time together and the older adults have less opportunity to pass on their knowledge, wisdom, traditions, and language (63, 66, 72, 73, 83).

Historical trauma such as the residential school system, the stolen generations and dispossession of land has impacted on all aspects of Indigenous lives (15, 49, 63, 65, 66, 73, 83–85, 90). The consequences of this trauma are immense and for the aging participants in the reviewed studies included having a lack of a family network to provide support, loss of opportunities, loss of identity, fear and suspicion of governmental services and care—and therefore avoidance of needed supports- and lack of resources to support aging well (49, 65, 73, 83–86, 89, 90).

> *"Our life has been interrupted, spiritually and culturally … my people have been hurt … that affected their health. They're lost. It's the loss of their way of life … identity and their culture, their everything. And it's been taken away from them"* [Older Aboriginal Australian, (89) p. 28]

DISCUSSION

This is the first known systematic search of the literature to scope what aging well means for different Indigenous populations, to compare the described concepts of aging well across these populations, and how the concepts differed to non-Indigenous perceptions of successful aging. Gaps in the literature on aging well for Torres Strait Islander populations was also examined to inform further research.

Concepts of what constitutes aging well are similar between Indigenous and non-Indigenous older adults, with literature reporting physical and mental health, social interactions, and attitude as important for all aging populations (26, 27, 46, 95). The cultural and social determinants of health significantly influence how older adults can age well in their communities whether Indigenous or non-Indigenous (3). However, this review has revealed that from an Indigenous perspective, aging well is a more holistic concept where connections to place, person and culture are interrelated.

Aging well for Indigenous peoples was fundamentally characterized by the component of "engagement with life" proposed by Rowe and Khan, rather than by the components of "lack of illness or disability" or "high cognitive and physical function" that was also included in their model (36). For Indigenous older adults, relationships are essential to aging well (15, 66, 73). Rowe and Khan (36) described active engagement with life as maintenance of interpersonal relationships and productive activity, with interpersonal relations being described as contact with others, exchange of information, emotional support, and direct assistance. Yet for Indigenous older adults, engagement with life was epitomized through the significance of relationality and connectivity, and where interpersonal relationships were more complex. Connections were not solely to maintain contact with others but involved a connection to culture, spirit, place, and whole of community. These relationships provided direction and motivation and the community was viewed as an extension of family. In this respect, Indigenous perspectives took a collective approach to aging well and could not be viewed individually (23). The collective approach to aging well is in contrast to the Western model of successful aging that places the emphasis on the individual (36). These findings align with those described by Pace and Grenier (52), who reviewed perceptions of aging with Indigenous peoples in North America and found relationships with family and community were integral to successful aging.

The importance of connections to traditional land was a significant aspect of aging well across the majority of publications. Indigenous peoples hold a deep connection to their ancestral land and connection to land is central to Indigenous peoples' existence (96). This spiritual connection, created through relationships, is expressed through Indigenous belief and knowledge systems (96). For Indigenous older adults, wellbeing and aging are embedded in their connections to, and relationship with, land (15, 71, 73, 83). Disconnection from their traditional lands compromised health and wellbeing, and impacted on the ability to age well (71, 73, 83).

The importance of generativity- the propensity and willingness to promote the wellbeing of younger generations, contributing to the growth of the next generation—was a further determinant of aging well from an Indigenous North American perspective. The acquisition of material goods or wealth was not considered important for these Elders (65, 66, 78, 81, 82). For Indigenous peoples from across most populations, transmitting their accumulated knowledge, traditional values, and wisdom to the younger generations, and advocating for Indigenous voices, was a fundamental indicator that they had aged well. Aging well helped to establish strong futures for the next generation. Through cultural leadership and as holders of knowledge, older Indigenous adults were shown respect, and were held in high esteem by their communities. This is in contrast to Western society, which, at times, portrays a negative stereotype toward aging adults (97). Within a Western culture, aging adults are commonly depicted as a socioeconomic risk, or a burden on society, as they face frailty and decline with very little to contribute to the overall wealth of the economy (98, 99). These views may well explain why older adults living in Western societies seek to defy aging and prolong youth. In contrast Indigenous peoples report taking joy in aging, as it signifies a time in life where they garner respect and feel valued (100).

Historical and cultural context, disparities, and inequality, are significant in the assessment of aging well (101). The successful aging literature indicates that economic and social privilege facilitates aging well when measured by lack of disease and disability and the maintenance of cognitive and physical function (24, 28, 29, 43). Moreover, in the Rowe and Khan model of successful aging, the success of how well an individual ages is attributed to the individual's choices, effort, and behaviors (36). Yet, lifestyle choices and individual volition are restricted by the accumulative disadvantage across the life course (45). For Indigenous peoples, life course, specifically the impacts of colonization, and the influence of the social determinants of health were ubiquitous across the publications on their perceptions of aging well. The reviewed publications reported that poverty, lack of adequate housing and transport, and ongoing grief and loss posed a challenge to aging well for older Indigenous adults. It is documented that an accumulation of deficits (personal, social, economic, and environmental) predicts ill health and unsatisfactory aging (102). However, positive assets such as resilience, positive attitude, and approach to life, were reported as means to mitigate those negative factors and promote aging well.

This scoping review also aimed to identify gaps in the literature on aging well for specific Indigenous populations, to provide recommendations for further research. The majority of publications were situated in North America (the USA and Canada) and distinguished between their specific Indigenous populations. Whilst six publications focused on Australian Aboriginal and Torres Strait Islander peoples, all included Aboriginal perspectives only with no perspectives specific to the Torres Strait population. Torres Strait Islander peoples are a culturally distinct Indigenous group within Australia, with their own identities formed from different environmental, cultural, and historical circumstances (51). Promotion of local programs for aging well requires a context-specific approach based on the concerns that local older adults find essential to their health (103). Understanding of local needs could decrease barriers to culturally appropriate health care (103), whilst supporting a holistic view of functioning and healthy aging (3). Therefore, research that explores concepts of aging well specifically for Torres Strait Islander peoples is required, and will address a gap in the existing literature.

IMPLICATIONS OF FINDINGS

Access to culturally appropriate health services and support programs remain a challenge for older Indigenous adults. A range of barriers was reported including locality, transport, cost, and cultural appropriateness. To successfully engage with older Indigenous adults and achieve program objectives, culturally safe approaches to care are critical (15, 90, 104, 105). Existing health care programs often neglect the cultural safety needs of Indigenous peoples (90) and do not consider the views of the consumer using the service (106). This can result in poor access to, and perceived non-compliance with, services (90). The findings of the review suggest any aging well programs or support services should take a culturally safe, holistic, multifaceted, and whole-of-community approach. Models of aging well also need to account for the complex health conditions that arise from the inequalities across the life course and the social determinants of health that influence aging (52). Empowering individuals to recognize and build on their strengths (resilience, attitude, and approach to life), may help promote their health status and aging trajectory (102). A strengths-based approach to aging well values the skills, knowledge, and relationships to both older adults and their communities.

LIMITATIONS

This scoping review had some limitations. Only articles published in English were included, thus potentially excluding studies of Indigenous peoples from non-English speaking nations such as inclusion of Indigenous peoples from Africa, Asia, the Pacific Islands, and Europe. The databases used in the scoping review were chosen due to their wide-spread use within the Australian context. Indigenous-focused databases or websites specific to countries other than Australia, or in languages other than English, may have additional publications of relevance not identified. The majority of studies (excluding those from Ecuador and Chile) were from English-speaking nations that had a common history of colonization by Britain, although this was not an inclusion criteria. As such, this may reduce the generalisability of the findings. Further research is needed to effectively explore aging for Indigenous peoples of other continents, different languages, and those without a history of colonisiation. A further limitation arose due to differences in original research methodologies of the included studies. Differences in the importance of domains of aging well may have been influenced by specific questions asked of participants

across studies. Some studies had predetermined domains of aging identified and specific topic areas, whilst other studies had more open-ended questioning formats. The application of the quality appraisal tool had its own limitations. A Western approach to appraising publications may not be suitable for all types of data—for this reason the autobiographical account was not rated but deemed valuable in adding to the understanding of aging well from an Indigenous perspective. Finally, findings synthesized from the reviewed publications were of a secondary source. As such, these findings were dependent on the rigor and trustworthiness of the primary authors in interpreting their results so that they accurately represented the voices of the Indigenous participants.

CONCLUSION

This scoping review presents concepts of what aging well means for different Indigenous peoples, providing an insight into how these perspectives differ from a non-Indigenous aging well model. Aging well for Indigenous peoples is a holistic concept where connections to culture, land and the wider community are integral. The literature reviewed highlighted the challenges common to Indigenous populations to achieve good health and wellbeing as they age. Gaps in perspectives from specific Indigenous populations, such as Torres Strait Islander peoples in Australia, has been identified, which highlights the call for locally conducted research into the specific needs of this population. Opportunities exist for health service and social support providers to develop strengths-based, culturally safe programs that better align health and social care systems to integrate services that support a holistic and positive view of aging well.

DATA AVAILABILITY STATEMENT

Publicly available datasets were analyzed in this study and the details of which are included in the article. Further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

RQ, SR, MR-M, and SL contributed to the conception and design of the study. RQ completed the literature search, led the analysis with input from SR and MR-M, and wrote the manuscript. RQ and SR reviewed all articles. MR-M and SL provided consensus where required. All authors contributed to manuscript revision, read, and approved the submitted version.

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3.6 Updated literature

Following the initial scoping review in 2020, I set up alerts associated with the search terms on the databases that provided this functionality, so any new literature in the subject matter would be highlighted throughout the research. Over the four years and two months (2021–2025), 58 new articles were identified. In February 2025, I conducted a supplementary literature search using the original search terms on the original databases searched. I then collated all articles that had been identified though database alerts and new searches to ensure that all the relevant literature from 2020 to the current date were considered in the context of this research. In the new updated search and articles highlighted via alerts, 23 new articles met the original inclusion criteria. The newly identified literature is summarised in Table 2.

The updated literature was not analysed for quality using the QATSDD tool as per the original scoping review, since the intent of the new search was to identify any new articles rather than assess their quality. Although no analysis was conducted on the content of the supplementary articles, they were all consistent with the findings of the initial scoping review. The relevant findings from those articles are included in the discussion chapter of this thesis. Even though it was encouraging to see the degree of research interest in ageing well in Indigenous populations globally, importantly, no literature was sourced that provided perspectives of Aboriginal or Torres Strait Islander Peoples living in the Torres Strait or NPA, highlighting the need for this current research.

Table 2: Summary of the Identified Literature in a Supplementary Search

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings
Acharibasam et al. (2022)	Exploring health and wellness with First Nations communities at the 'Knowing Your Health Symposium'.	First Nations & Metis / Canada and United States of America.	To engage in dialogue on Indigenous nutrition, exercise, and self-management of health.	Community-Based Participatory Research. Included a survey with 137 symposium attendees.	Documented that for Indigenous older adults living with multimorbidity, regular access to healthcare was key to healthy ageing in place. Technology combined with health education can support Indigenous older adults' capacity to age healthily in place.
Allick & Bogic (2024)	Visiting with Elders—Ageing, caregiving, and planning for future generations of American Indians and Alaska Natives.	American Indians and Alaska Natives / United States of America.	To address the importance of engaging American Indian and Alaska Native Elders in a dialogue about healthy ageing.	A listening session at the 2021 National Indian Council on Ageing conference. Approx 70 participants.	Documented that Elders maintain many systems and relationships that influence their perceptions of ageing and ageing-related diseases.
Asquith-Heinz et al. (2022)	Alaska Native successful ageing in Northwest Alaska: how family impacts how one ages in a good way.	Alaska Natives / United States of America.	To explore successful ageing from an Alaska Native perspective.	Community-Based Participatory Research. Semi-structured interviews with 41 Elders.	Documented that successful ageing included family, emotional well-being, Native way of life, physical health, and spirituality.
Athira et al. (2024)	Harnessing resilience in the healthy ageing discourse: Insights from Attappadi Indigenous older adults, Kerala, India.	Attappadi / India.	To explore the role of resilience in their pursuit of healthy ageing.	In-depth phenomenological interviews with 34 participants, observation, and document analysis.	Documented that a life course marked by adversities, embracing the unyielding strength within, personal resilience catalysts, and extrinsic resilience catalysts are characteristics of the ageing experience.

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings
Baron et al. (2021)	Conceptualisation and operationalisation of a holistic indicator of health for older Inuit: results of a sequential mixed-methods project.	Inuit / Canada.	To explore and operationalise model of Inuit health in ageing.	Qualitative data gathered through two workshops with 21 participants. Quantitative data from a Peoples Survey.	Documented that heathy ageing was conceptualised as general health balance, mental health, spirituality, few activity limitations, being loved and having positive relationships, speaking Inuktitut, and being free of addiction.
Gallardo-Peralta et al. (2022)	Health, social support, resilience and successful ageing among older Chilean adults.	Aymara and Mapuche / Chile.	To explore the predicators of successful ageing.	Survey of 800 adults.	Documented that demographic and health and psychosocial variables are associated with successful ageing, with resilience being of note.
García et al. (2024)	Ageing in Indigenous communities: perspective from two ancestral communities in the Colombian Andean–Amazon region.	Inga and Kamëntsa / Colombia.	To interpret the meaning of old age to support healthy ageing.	Qualitative study with in-depth interviews with 6 participants.	Documented that the meaning of old age in these communities is not centred on a determinate age but on traditional practices.
Hyde et al. (2024)	Intrinsic capacity and ageing well for Aboriginal people in remote Western Australia: a longitudinal cohort study.	Aboriginal / Australia.	To assess intrinsic capacity, an important component of ageing well, in older Aboriginal people living in remote Western Australia.	Longitudinal cohort study with secondary analysis of survey and clinical assessment data of 345 participants.	Documented that impaired intrinsic capacity was most frequent in the sensory and locomotion domains of ageing.

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings
S. K. Jamieson et al. (2025)	A community-led approach to understanding how service providers can support 'ageing well' for older Aboriginal people in Australia.	Aboriginal / Australia.	To explore how service provision can support Aboriginal people to age well in a remote community in New South Wales, Australia.	Qualitative: Interviews were conducted with 11 staff members from health, aged care, and Aboriginal Community Controlled services.	Documented that ageing well is collective and a shared responsibility, racism and discrimination are pervasive in mainstream services, intersectional barriers and enablers to ageing in place, and trust and cultural safety are integral to service accessibility.
Kim & Lewis (2024)	Protective factors in the context of successful ageing in urban-dwelling Alaska Native Elders.	Alaska Natives / United States of America.	To explore Alaska Natives Elder's experiences comparing successful ageing within four rural Alaska communities and of Elders who relocated from a rural to an urban community.	Community-Based Participatory Research. Semi-structured interviews with 25 participants.	Documented that to age well in urban Alaska, access to health care services, family, and community engagement were essential. The main challenges for urban Elders involved establishing a sense of community, intergenerational involvement, and the ability to continue traditional ways of living.
Kim et al. (2025)	A discourse analysis of cultural influences on Alaska Native successful ageing.	Alaska Natives / United States of America.	To examine how a successfully ageing Elder's identity is configured and to describe how culture impacts ageing well within the rural and urban context.	Community-Based Participatory Research. Discourse analysis of semi-structured interviews with 25 participants.	Documented that two patterns emerged detailing cultural effects on identity and Eldership, illuminating differences in the self-evaluation of successful ageing based on cultural influences and the role of contextual factors.

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings
Lewis et al. (2023)	Cyclical migration in Alaska Native Elders and its impact on Elders' identity and later life well-being.	Alaska Natives / United States of America.	To describe the Indigenous cyclical migration of Elders and its influence on their identity and later life health and well-being.	Community-Based Participatory Research. Semi-structured interviews with 124 participants.	Documented that Elders are participating in cyclical migration to access the needed cultural and Western resources to age successfully.
Lewis, Kim, Asquith-Heinz & Withrow (2024)	Generativity as a traditional way of life: Successful ageing among Unangan Elders in the Aleutian Pribilof islands.	Unangan Alaska Natives / United States of America.	To explore the ageing experiences and conceptualisation of successful ageing and to explore existing pathways to successful ageing within two remote communities.	Community-Based Participatory Research. Semi-structured interviews with 20 participants.	Documented that successful ageing incorporated physical health, social support and emotional well-being, generativity as a traditional way of life, community engagement and Indigenous cultural generativity.
Listener et al. (2023)	Nehiyawak (Cree) women's strategies for ageing well: community-based participatory research in Maskwacîs, Alberta, Canada, by the Sohkitehew (Strong Heart) group.	Nehiyawak / Canada	To develop a mutual understanding about Nehiyawak women's experiences of 'ageing well' and to gather valuable strengths-based knowledge about ageing well.	Community-Based Participatory Research. Listening circles with 36 participants.	Documented strategies to age well included: physical—keeping active to remain well, mental—learning new skills to nourish your mind, emotional—laughing, crying, and being happy and spiritual—practicing Nehiyawak traditional ways.

References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings
Luo (2023)	Active ageing in mountainous villages. An ethnographic study of Indigenous older adults in Taiwan.	Paiwan and Rukai / Taiwan.	To explore the understanding and perceptions and practice of active ageing among older adults.	Ethnography study with older Indigenous adults, Indigenous service providers, and Indigenous scholars. Included semi-structured interviews.	Documented that the physical environment, social determinants, behavioural and economic determinants, and social and health services influenced active ageing.
Lyngdoh & Adusumalli (2023)	Locating Ageing in India Indigenous Perspectives of the Khasis and Jad Bhotiyas.	Khasis and Jad Bhotiyas / India.	To understand ageing.	Qualitative. In- depth interviews, informal participatory conversations, and storytelling with the research participants.	Documented that older adults who are considered vulnerable, lacking capacity and with reduced cognitive function is a fallacy with regard to ageing well.
McCausland et al. (2023)	Elders' perspectives and priorities for ageing well in a remote Aboriginal community.	Aboriginal / Australia.	To explore what ageing well means.	Qualitative. Interviews and focus groups with 22 Aboriginal Elders.	Documented that Elders fulfilling their roles for younger people is important, the ongoing effect of colonisation impacts on Elders ageing well, independence and choice are valued but constrained, the Elders group supports Elders' holistic concept of wellbeing and Elders want a culturally safe model of aged care.
Rallo et al. (2025)	Experience of ageing in the Ngäbe-Buglé community in Coto Brus, Costa Rica: A qualitative study.	Ngäbe-Buglé / Costa Rica.	To explore the ageing experience of the Ngäbe-Buglé community.	Qualitative. Semi-structured interviews with 14 participants.	Documented that challenges to ageing well included, economic difficulties, insufficient social support, and fading cultural heritage.

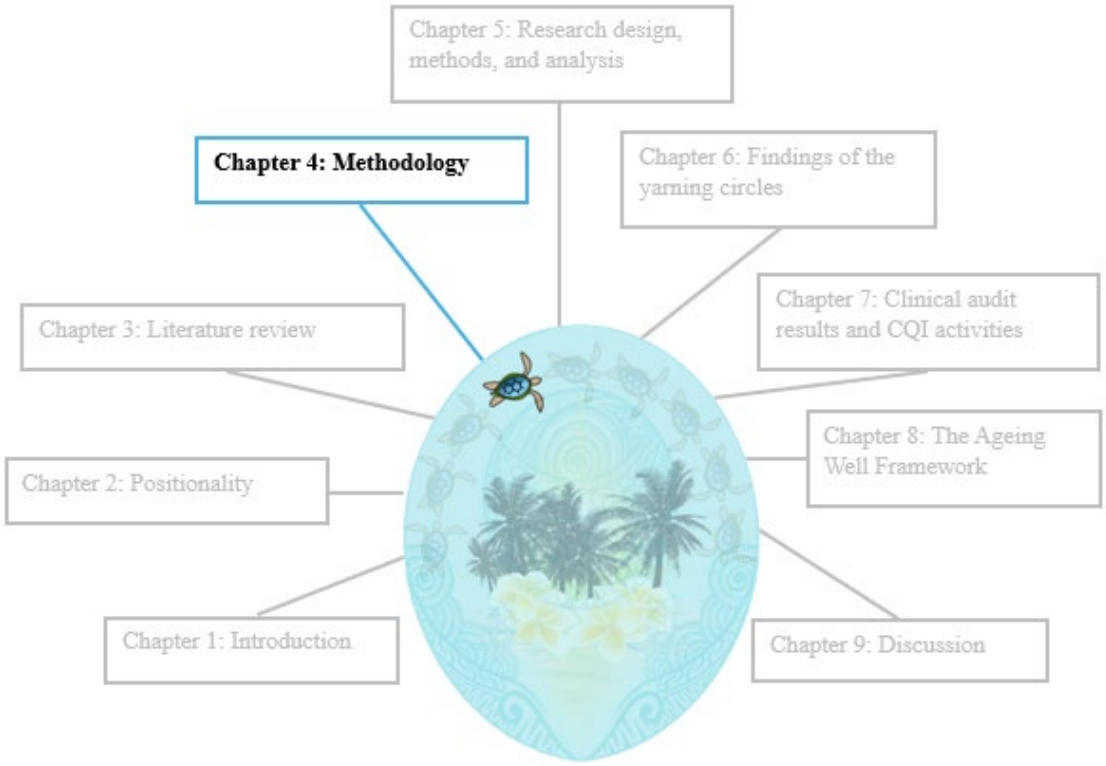
References	Title	Indigenous population	Aims	Study design and methodology	Summary of findings
Silan & Munkejord (2023)	Cisan and Malahang: Indigenous older adults' voices on active ageing – findings from a qualitative study in Taiwan.	Tayal / Taiwan.	To explore the participants' experiences of active ageing.	Qualitative. Observational and interviews.	Documented that active ageing includes receiving information about health and illness; physical activities; social care through gathering and chatting about anything, preferably in the Tayal language; and inter-relational care between people, land, and handicrafts.
Slater et al. (2022)	Wellness in the face of frailty among older adults in First Nations communities.	First Nations / Canada.	To understand the factors associated with wellness.	Quantitative. Using existing data from the First Nations Regional Health Survey. Associations between wellness and determinants of health were analysed.	Documented that three key elements were associated with wellness (and ageing): the availability of resources, individual lifestyle factors, and cultural connection and identity.
Soto-Higuera et al. (2024)	Relationship between identity affirmation, autonomy and successful ageing in Chilean Urban Mapuche Indigenous older adults.	Mapuche / Chile	To evaluate direct relationships between identity affirmation, autonomy and successful ageing.	Quantitative, cross sectional and correlational methodology with 355 participants.	Documented that identity affirmation and autonomy are associated with successful ageing.
Wortman & Lewis (2021)	Gerotranscendence and Alaska Native successful ageing in the Aleutian Pribilof islands, Alaska.	Alaska Natives / United States of America.	To explore what it means to be an Elder and age successfully.	Qualitative. Semi-structured interviews with 29 participants.	Documented that the elements of successful ageing were values, beliefs, and behaviours that were protective and helped participants adapt to ageing-related changes.
Yellow Bird et al. (2023)	The Cultural Determinants of Healthy Indigenous Ageing.	Indigenous / United States of America.	To share stories of 3 Indigenous grandmothers who embody healthy behaviours.	Narrative.	Documented that a healthy traditional lifestyle was a fountain of youth, happiness, and good health.

3.7 Chapter summary

In this chapter I have presented a literature review of the successful ageing paradigm, including the critiques of this model in relation to Indigenous perspectives. A scoping review of the literature regarding what ageing well means to Indigenous populations globally is included. An updated literature review concludes this chapter.

In the following chapter, I detail the methodological approach to this study, which includes descriptions of the decolonising approach taken, the transformative paradigm that informs this research, the Indigenous research principles that guide this research and participatory action research (PAR) as the chosen methodology.

Chapter 4: Methodology



4.1 Chapter outline

In this chapter, I explore the methodological approach to this study. The methodology is the framework that guides and supports research (V. Braun & Clarke, 2013; Mills & Birks, 2014). The selection of the most appropriate methodology, specifically what is most appropriate for the context and aims of the research, is fundamental to the research design and rigour (Mills & Birks, 2014). Methodology 'frames the questions being asked, determines the set of instruments and methods employed and shapes the analysis' (L. T. Smith, 2021, p. 164). Research that is firmly situated in a methodological ideology, with a clear statement of the philosophical justifications of the methods, produces a high-quality outcome (Liamputtong, 2013; Mills & Birks, 2014).

The chapter begins with a discussion of my ontological, epistemological and axiological positioning situated within the transformative paradigm that informs this research. I discuss decolonising research methodology and the overarching approach taken, and describe why Indigenous research principles were considered. In taking a decolonising

approach to the research, it was imperative that I used a methodology that was appropriate for research with Aboriginal and Torres Strait Islander Peoples, and that aligned within a transformative paradigm. PAR was the chosen methodology and is also discussed at the end of this chapter. The way in which these elements of the methodology align are depicted in Figure 3.

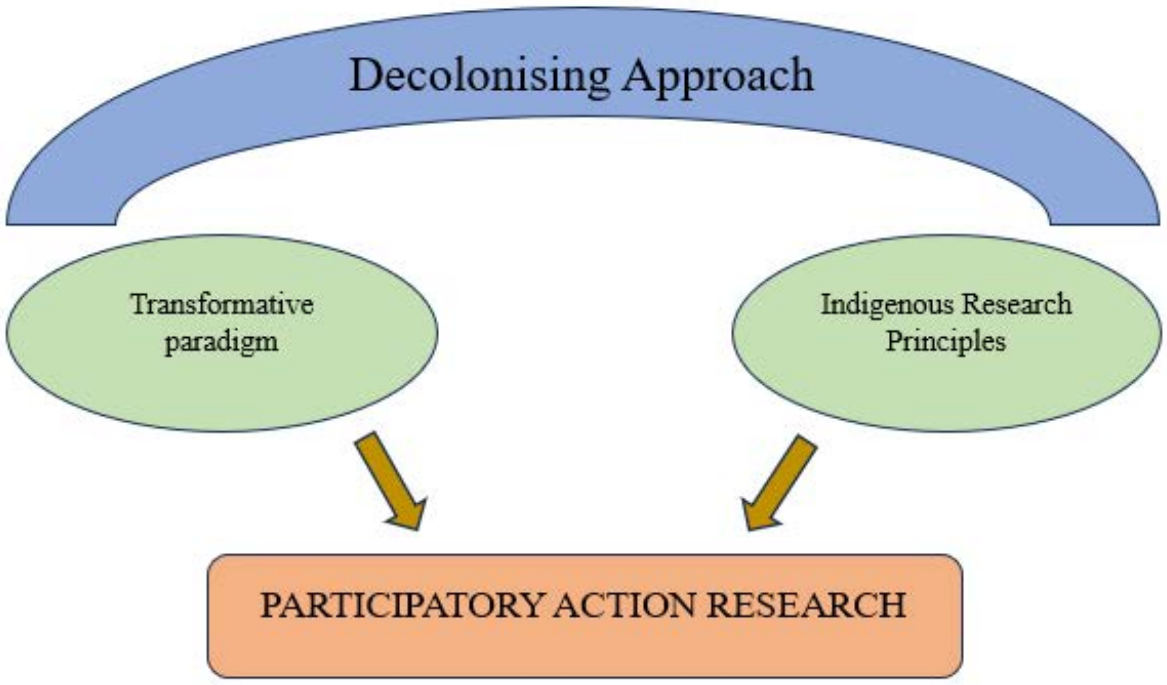


Figure 3: Methodological Framework

4.2 Background to the methodological framework

Philosophical assumptions inform research paradigms, and thus the choice of research methodology. Paradigms constitute a shared belief system, framework or worldview that influences what knowledge researchers seek, guides how they conduct the research and directs the interpretation of the data they collect (Biddle & Schafft, 2015; Cram & Mertens, 2016; Guba & Lincoln, 1994; Kivunja & Kuyini, 2017; Landi, 2023). Each paradigm has a philosophical orientation that is informed by assumptions about the nature of reality (ontology), ways of knowing (epistemology), ethics and value systems (axiology), and the rationale for, and approach taken to, gaining knowledge (methodology; Chilisa, 2012; Mertens, 2015). As I embarked on this research journey, it was important to develop a critical awareness of the different paradigmatic stances that

inform a research design (Birks, 2014b; Mertens, 2015), since some paradigms are better suited to answering specific research questions than others (Landi, 2023).

A large number of different research paradigms have been proposed over the years, including positivism, post-positivism, post-empiricism, post-modernism, falsificationism, symbolic interactionism, critical theory, critical realism, structuralism, post-structuralism, constructivism, deconstructionism, interpretivism, pragmatism, transformative, post-colonial Indigenous research and aesthetic intersubjective (Birks, 2014b; Chilisa, 2012; Cram et al., 2018; Guba & Lincoln, 1994, 2005; Landi, 2023; Mertens, 2015; Ormston et al., 2014). Mertens, who proposed the transformative paradigm (Cram & Mertens, 2016), described four major paradigms: post-positivism, constructivist, transformative and pragmatic (Mertens, 2015). The positivism/post-positivism paradigm is based on an empiricist philosophy and assumes that everything is directly observable and independent of the researcher, and that reality can be studied through the scientific method consistent with quantitative techniques (Biddle & Schafft, 2015; Chilisa, 2012; Landi, 2023; Mertens, 2015). The constructivist paradigm focuses on humans' lived experiences in the world and assumes that knowledge is socially constructed and subjective. When applying the constructivist paradigm, the researcher is active in the research process and in the interpretation of the findings, and, consequently, the research is a product of the values of researchers and cannot be independent of them. Related methodological approaches are primarily qualitative (Biddle & Schafft, 2015; Chilisa, 2012; Landi, 2023; Mertens, 2015). The pragmatic paradigm focuses on the practical application of knowledge, maintaining that the best research approach is the one that most effectively answers the research issue. Pragmatists propose that reality is constantly changing, and truth and value are found in the practical implications of research. This approach often uses a mixed methods research design, incorporating both positivism and interpretivism within a single study (Biddle & Schafft, 2015; Creswell, 2014; Johnson & Onwuegbuzie, 2004; Landi, 2023; Mertens, 2015; Tashakkori & Teddlie, 2010). The fourth paradigm described by Mertens (2015) is the transformative paradigm. This is outlined in further detail below, along with the way in which a transformative paradigm aligns with my own ontological, axiological and epistemological assumptions, and the way it forms the basis for the chosen methodology of this research.

4.2.1 The transformative paradigm

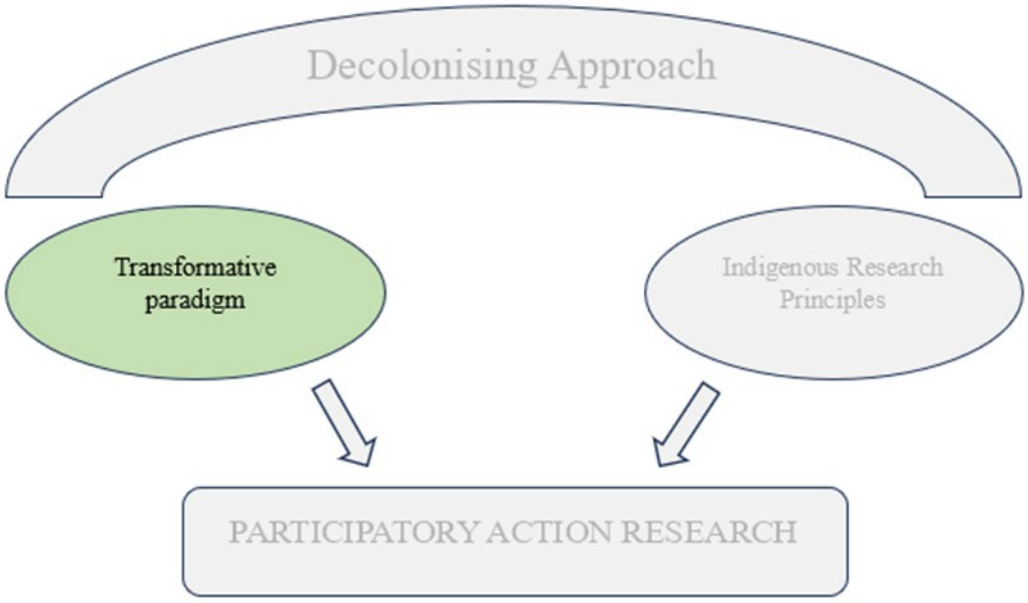


Figure 4: Methodological Framework—Transformative Paradigm

The transformative paradigm was proposed by Mertens as a framework for addressing inequality and injustice in society using culturally competent research methods (Cram & Mertens, 2016; Mertens, 2003, 2007, 2015; Mertens, et al., 2009). This was in response to marginalised communities that failed to see the positive benefits of the 'research done "on" them' (Cram & Mertens, 2016, p. 164). A transformative paradigm has a strong axiological focus that centres on respecting and honouring the rights of communities, and on the issues of power and power imbalances. Understanding and challenging the dynamics of power and privilege is seen as a priority (Biddle & Schafft, 2015; Cram & Mertens, 2016; Mertens, 2003, 2007, 2009; Phelps, 2021). The transformative paradigm takes a strengths-based approach to providing culturally appropriate strategies that create change and focuses on strengths of communities, rather than the historical approach of using a deficit narrative of victim blaming (Mertens, 2009). Researchers working within a transformative paradigm strive for a positive transformation for those who experience marginalisation, discrimination and oppression by providing a platform for diverse voices (Cram & Mertens, 2016), and through repudiating myths and empowering people to radically change society (Chilisa, 2012). According to Mertens (2009, p. 5):

[There are] three common themes in transformative research:

- Underlying assumptions that rely on ethical stances of inclusion and challenging oppressive social structures.
- An entry process into community that is designed to build trust and make goals and strategies transparent.
- Dissemination of findings in ways that encourage use of results to enhance social justice and human rights.

Mertens (2009) also proposed that Indigenous research aligns within a transformative paradigm in which 'Indigenous peoples have much to teach researchers about respect for culture and the generation of knowledge for social change', reporting that the paradigm builds on an abundant source of scholarly literature from Indigenous researchers (p. 4). As a consequence, the transformative paradigm has more recently adapted to take into account an Indigenous worldview (Cram & Mertens, 2016), reinforcing the importance of relationships (Cram & Mertens, 2015).

Ontology within a transformative paradigm

Ontological assumptions (i.e. assumptions about the nature of reality) inform how we understand the world, and thus inform how we conceptualise a research problem. My belief is that within our world, certain aspects of reality, particularly subjective experiences, are not fixed or objective in nature. Instead, they are open to various interpretations, depending on the perspective or background of the individual experiencing or observing them. Each person brings to their reality their own experiences, values and perspectives. These interpretations of reality are not fixed, but can change over time, or within different circumstances or contexts. This aligns with a transformative paradigm that ontologically describes the world as multifaceted, with the social and cultural positions of peoples influencing their opinions about what is real (Cram & Mertens, 2016). I also understand and acknowledge that, although perceptions of reality are diverse, they are not necessarily equal in so much as those with power are able to privilege their own realities ahead of those who are often oppressed. This is particularly the situation for Indigenous people where Indigenous worldviews have been, for centuries, disbelieved, mocked, subverted and discounted by a Western Eurocentric belief system (Chilisa, 2012; L. T. Smith, 2021). This belief also resonates within a transformative paradigm that strives to challenge the acceptance of the dominant reality

of the privileged, and the inequalities that therefore arise, over the realities of the oppressed and marginalised (Cram & Mertens, 2015, 2016).

Epistemology within a transformative paradigm

Transformative and Indigenous epistemologies share a belief that knowledge is constructed through relationships that are trusting and respectful of cultural norms, that participant knowledge is valued, and that knowledge construction needs to be from those with the lived experience (Cram & Mertens, 2015, 2016; Hurtado, 2022). In aligning with my ontological position, the way in which I construct knowledge about the nature of reality must value and honour the Indigenous worldview of the co-researchers involved in this research. As a non-Indigenous researcher, I do not claim to be conducting Indigenist research, but through this work with my Torres Strait Islander colleagues and co-researchers, I believe that Indigenous worldviews, and the co-construction of the knowledge through an Indigenous lens, should be central to the research. To centralise Indigenous worldviews, I first need to reflect on my position as a white privileged researcher (this reflexivity is explored in the standpoint section of this thesis in Chapter 2), as well as having an understanding and knowledge of Indigenous worldviews and Indigenous knowledge systems. Epistemologically, within a transformative paradigm, recognition exists that different ways of knowing are expressed within cultural groups (Hurtado, 2022) and 'constructed within a context of power and privilege with consequences attached to which version of knowledge is given privilege' (Mertens & Wilson, 2012, p. 170). To bring all voices to the forefront to initiate change, researchers need to critically examine the relationships between those with different degrees of power and privilege (Cram & Mertens, 2016).

Axiology within a transformative paradigm

Axiology refers to a researcher's understanding of values and ethics while conducting research. Having worked both as a clinician and researcher in the Torres Strait for over two decades, I am acutely aware of the importance of ethics and values when working with Indigenous communities. The importance of adhering to Indigenous research principles is fundamental to this work and warrants its own section in this chapter (see Section 4.4: Indigenous research principles). Cram and Mertens (2016) stated that axiology takes precedence within a transformative paradigm and is more significant than

ontological and epistemological principles, which aligns with my strong adherence to Indigenous research principles. Cram and Mertens (2016, p. 165) identified the following four axiological principles situated within a transformative paradigm:

- cultural respect
- social justice
- human rights
- reduction of inequalities.

These are achieved through ethical research that is 'cognisant and responsive to history, culture, (in) equity and the importance of relationships and reciprocity' (Cram & Mertens, 2015, p. 95), principles that align with my own value system.

Methodology within a transformative paradigm

A transformative paradigm promotes methodologies that (1) focus on the strengths and resilience in communities, (2) promote the co-generation of data that is collaboratively interpreted by all stakeholders, and decisions are shared about how findings can be used to make changes, (3) are cyclical in design, where different types of data are collected in different phases of the research and (4) promote the use of mixed methods for data collection (Cram & Mertens, 2015, 2016; Hurtado, 2022; Jackson et al., 2018; Mertens, 2007). From a methodological perspective, a transformative approach and an approach that is appropriate for researchers working with Indigenous communities share similar principles. They both support the inclusion of community members in respectful and meaningful ways, acknowledge contextual and historical factors, take a strengths-based approach, recognise the challenges arising from oppression and marginalisation, feature reciprocity and deliver outcomes that effect change (Cram & Mertens, 2016; Hurtado, 2022). My chosen methodology, therefore, needed to be appropriate for Indigenous peoples, facilitate transformation, directly translate findings into clinical service delivery and answer the research questions.

Community feedback from my previous research work in the region was a suggestion for community members to partner with our wider research team to progress research ideas based on outcomes of the dementia prevalence study. The community emphasised that this had to come from a strengths-based approach that promoted the assets of the community to facilitate ageing well, rather than a problem/disease–focused narrative (see

context of the study in Chapter 1). For these reasons, I chose the PAR methodology for this research, since it had also been endorsed as an appropriate methodology within the transformative paradigm (Chilisa, 2012; Kivunja & Kuyini, 2017; Mertens, 2007, 2015; Phelps, 2021). PAR approaches are recommended for research with Indigenous peoples because they support Indigenous people to drive their own inquiry and improve their health and wellbeing (K. L. Braun et al., 2014; Dudgeon et al., 2020; Kovach, 2009; R. L. Smith et al., 2020). PAR is outlined in Section 4.5 of this chapter. A transformative paradigm is also suitable for my study since I will be collecting both qualitative data from yarning circles and quantitative data from medical record audits.

4.3 Decolonising approach

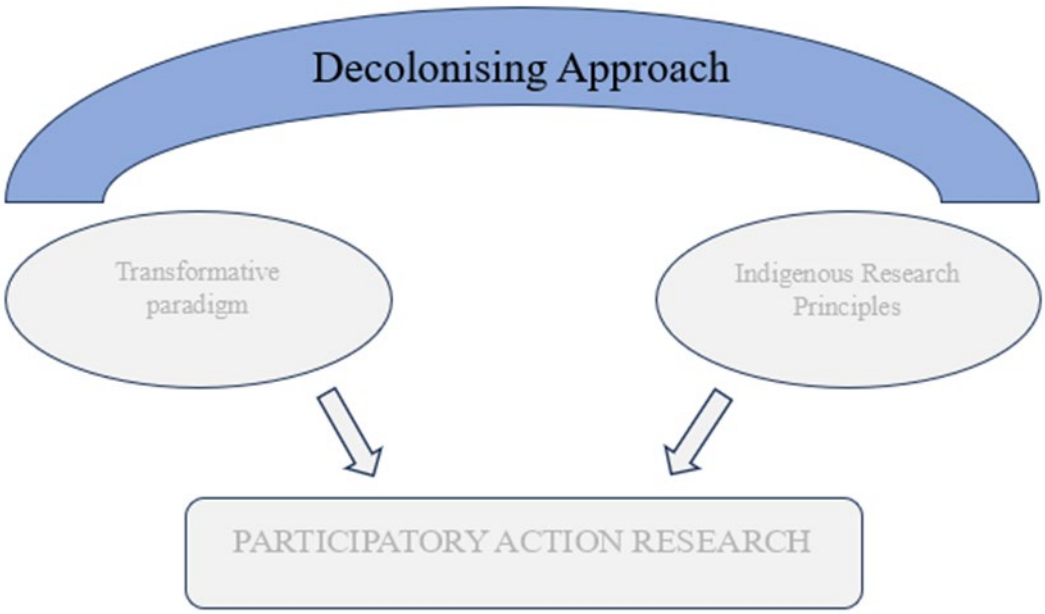


Figure 5: Methodological Framework—Decolonising Approach

The overarching approach to this research is the application of decolonising research methodologies. Swadener and Muta (2008) stated that decolonising research does not have a definitive definition or a single, agreed-on set of guidelines. Instead, decolonising research lies in the motives, concerns and knowledge brought to the research process, and it is performative, enmeshed in activism. Chilisa (2012) described decolonisation as a process of 'conducting research in such a way that the worldviews of those who have suffered a long history of oppression and marginalization are given space to communicate from their frames of reference' (p. 14).

Colonising (Western Eurocentric) research has historically dismissed or negated Indigenous knowledge and ways of knowing in favour of dominant Western knowledge systems, with past representations of Indigenous peoples as lesser 'Others' (K. L. Braun et al., 2014; Chilisa, 2012; L. T. Smith, 2021). This has harmed Indigenous peoples in many ways, including perpetuating prejudices and racism, appropriating Indigenous knowledge, devaluing Indigenous ways of learning and knowing, justifying the use of Indigenous people as subjects of unethical practice (including research), creating power imbalances with benefits only to the privileged, and problematising Indigenous peoples (K. L. Braun et al., 2014; Bullen et al., 2023; Chilisa, 2012; Fatiha et al., 2023; Fogarty, Bulloch et al., 2018; Kovach, 2009; Sherwood, 2009, 2010; L. T. Smith, 2021). The cumulative effect of these factors has led to, among other issues, the ongoing injury and poor health of Indigenous communities and peoples (Sherwood, 2009). To effect change, we need to challenge Western ways of research, which, according to Ermine et al. (2004, p. 16, cited in Sherwood & Edwards, 2006), involves 'understanding colonial history, and ensuring that research has practical applications that empower and liberate the people through practical and ameliorative results; which, in contemporary Indigenous contexts, means engaging in a decolonisation agenda'. Foremost, decolonising research methodologies recognise the self-determination of Indigenous peoples (K. L. Braun et al., 2014).

As a non-Indigenous researcher, as already stated, I am not conducting Indigenist research (Rigney, 2006; L. T. Smith, 2021); however, decolonising research provides space for Indigenous researchers and allied others (such as myself) to work in cross-cultural partnerships (Cram & Mertens, 2015; Johnston & Forrest, 2020; Swadener & Muta, 2008). Although there are challenges involved in being a non-Indigenous researcher working in this field (I outline some of my own challenges in the reflexivity chapter, Chapter 2), Ermine (2000) suggested that, through negotiation and respect, the intersection of Indigenous and non-Indigenous worldviews offers opportunities for new knowledge production. Much can be achieved through sharing ideas, knowledge and worldviews, with the potential to generate solutions and outcomes that are difficult to attain in isolation (Bullen et al., 2023; Haynes et al., 2022; Johnston & Forrest, 2020), as well as a means of addressing historical oppression and working towards a decolonising and Indigenous-led agenda (Crouch et al., 2023; Kovach, 2009).

Taking a decolonising approach, I respect and incorporate Indigenous worldviews and alternative ways of knowing into the research. Being inclusive of Indigenous ways of knowing, being and doing in Indigenous health research is an essential practice of decolonising methodologies, critical to improving health outcomes (Sherwood, 2010). I also recognise the unequal distribution of power—specifically, the differentiation between researcher and those being researched, and the need to prioritise the needs and interests of Indigenous peoples, work in partnership to ensure Indigenous voices are at the forefront and recognise Indigenous strengths, rather than problematising them. A deficit discourse has underpinned much of the research on the health of Indigenous peoples that situates Indigenous peoples' health as a problem to be solved (Bryant et al., 2021; Haynes et al., 2022; Sherwood, 2009; L. T. Smith, 2021). However, a strengths-based approach to research, through the promotion and celebration of the capacities and capabilities of the communities and the individuals involved, helps negate this deficit ideology and focuses on Indigenous self -determination (Bryant et al., 2021; Fogarty, Lovell et al., 2018). In applying a decolonising approach, I have also endeavoured to learn about Indigenous culture and history (specifically that of the Torres Strait), understand the injustices of the past and reflect on my own position of power and privilege (this is explored in my standpoint/reflexivity in Chapter 2).

A decolonising approach is used in this study through the research objectives being identified and set by the Torres Strait communities, and the research results being of benefit to the community; through the use of PAR as a methodology, based on the inclusion of community members with direct transformative outcomes (consistent with the philosophical underpinnings of the research); through the establishment of a Knowledge Circle of Indigenous community members to oversee the research; and through the use of methods congruent with Indigenous research methods—yarning circles and continuous quality improvement cycles.

4.4 Indigenous research principles

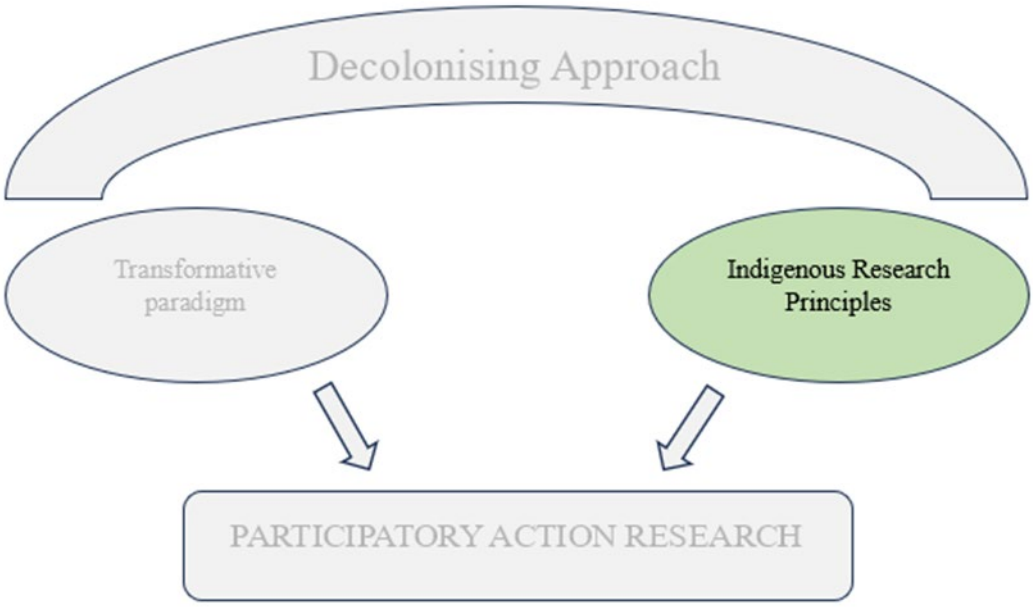


Figure 6: Methodological Framework—Indigenous Research Principles

Indigenous research principles can strengthen methodological frameworks (L. T. Smith, 2021) and can provide important guidance to researchers to ensure a more rigorous research design (Caxaj, 2015). It is critical that all aspects of the research are respectful of Indigenous worldviews and value Indigenous ways of knowing, being and doing. Importantly, principles that keep researchers accountable are more likely to improve Indigenous health (D. P. Thomas et al., 2014). Adhering to such principles is important in research, but even more so as a non-Indigenous researcher working with Indigenous communities.

Many national and international guidelines exist for conducting research with Indigenous communities. Within Australia, some of the main guides include *Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders* (National Health and Medical Research Council [NHMRC], 2018a), and its accompanying document, *Keeping research on track II: A companion document to ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders* (NHMRC, 2018b); *Guidelines for ethical research in Australian Indigenous studies* (AIATSIS, 2020b); *NSW Aboriginal health ethics guidelines: Key principles* (Aboriginal

Health & Medical Research Council of NSW [AH & MRC], 2023); and *Researching Indigenous health: A practical guide for researchers* (Harrison, 2011). The six core values of the *Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders* (NHMRC, 2018a) are:

- responsibility
- reciprocity
- respect
- equity
- cultural continuity
- spirit and integrity.

These values provide the foundation for the guidelines that have the specific intention of ensuring that research with Aboriginal and Torres Strait Islander Peoples and communities (1) improves the way all researchers work with Aboriginal and Torres Strait Islander Peoples and their communities, (2) develops and/or strengthens the research capabilities of Aboriginal and Torres Strait Islander Peoples and their communities, and (3) enhances the rights of Aboriginal and Torres Strait Islander Peoples as researchers, research partners, collaborators and participants in research (NHMRC, 2018a, p. 1). HART reflected on how they addressed some of these principles following the dementia prevalence study that was the precursor to this research project (see research context in Chapter 1). The publication of 'Community involvement to maximise research success in Torres Strait Islander populations: More than just ticking the boxes' (Quigley et al., 2021) explores some of the lessons learned (see Appendix A).

However, this is a continuous journey of learning and reflection, and, consequently, as I embarked on this research, I went back to the literature to draw on other Indigenous and non-Indigenous researchers who had proposed, applied and reflected on differing principles and values when researching with Indigenous Peoples (Bainbridge et al., 2015; Dew et al., 2019; Held, 2020; Henderson et al., 2002; Hing et al., 2010; L. M. Jamieson et al., 2012; Maar et al., 2011; McFarlane et al., 2016; O'Donahoo & Ross, 2015; Pyett et al., 2009; Singer et al., 2015; Watkin Lui et al., 2016). In addition to national guidelines, the international CONSolIDated critERia for strengthening the reporting of health research involving Indigenous Peoples (CONSIDER) statement is relevant (Huria et al.,

2019). This statement synthesised guidelines from Australia (Aboriginal and Torres Strait Islanders), Canada (First Nations Peoples, Métis), Hawaii (Native Hawaiian), New Zealand (Māori), Taiwan (Taiwan Indigenous Tribes), the United States of America (First Nations Peoples) and Northern Scandinavian countries (Sami). Although the purpose of this checklist is for the reporting of health research involving Indigenous peoples, its breadth of synthesised research guidelines about Indigenous health research makes it a valuable resource when considering ethical research practice.

To incorporate Indigenous research principles into my own methodological framework, I synthesised the core values taken from the aforementioned sources. These are values that I believe this research strives to adhere to. They are outlined as follows.

Meaningful relationships

- Built on trust.
- Respectful.
- Long-lasting.
- Express gratitude.
- Demonstrate reciprocity.
- Honest and accountable.
- Adhere to community protocols, processes and approvals (noting the importance of food as a Torres Strait protocol).
- Maintain the confidentiality and privacy of individuals and communities unless otherwise requested.
- Engage active listening.
- Dignifying.
- Demonstrate culturally appropriate engagement.

Open to Indigenous worldviews

- Value and recognise Indigenous knowledge and wisdom.
- Understand and learn about past Indigenous historical, political and social contexts.
- Respect communities' past and present experience of research.

- Understand my own values and expectations, and position of power and privilege, and how that aligns with the research project.
- Educate myself on the individual communities and organisations, including knowledge of a community's history, values and beliefs, cultural make-up, and range of norms and practices, while maintaining political astuteness and cultural sensitivity.
- Recognise cultural diversity and different cultural perspectives.
- Incorporate Indigenous knowledge and perspectives in processes and findings.

Community empowerment

- Research responds to a priority identified by the community and is relevant.
- Research is completed in partnership with Indigenous people and led by the Indigenous partners.
- Research produces tangible and intangible benefits to the communities that are sustainable.

Indigenous Peoples as active participants

- Indigenous people involved in all aspects in the research in a meaningful way.
- Engaging Indigenous leadership in the project.
- The research builds capacity—employing Indigenous researchers.
- Governance and guidance by an Indigenous steering committee (Knowledge Circle).
- Accountable to the community.

Appropriate methodology

- Strengths-based research.
- Flexibility in study implementation while maintaining scientific rigour.
- Research methods that are culturally congruent.
- Working to time frames of the community and responding to community needs/events.
- Translation of findings into practice.

Respectful communication

- Informing the community of progress throughout the project.
- Outcomes relayed to the community in differing formats.
- Acknowledgment of participants is just and appropriate.

In summary, 'principles in Indigenous research are principles of reciprocity, benefit and empowerment. They are about privileging Indigenous views and voices in research and setting up an environment both for Indigenous ownership of and leadership in research' (Laycock et al., 2011, p. 25). The process of how I enacted these principles is outlined in Chapter 5.

4.5 Participatory action research

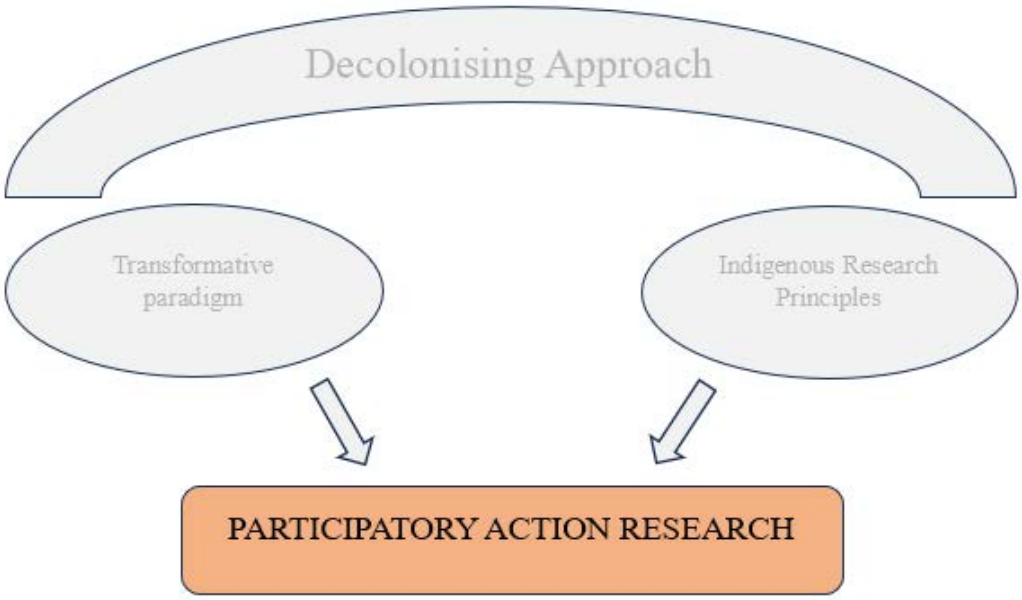


Figure 7: Methodological Framework—Participatory Action Research

PAR aligns within this methodological framework because it is a research methodology that promotes empowerment, self-determination, and takes a decolonising and transformative approach (Dudgeon et al., 2020; Merton, 2009). PAR is a process of collective, self-reflective inquiry that researchers and participants undertake collaboratively to understand and improve on practices, working from the assumption that

all people affected by an issue should be involved in the inquiry (Baum et al., 2006; Stringer, 2007).

PAR's roots stem back to the work of Paulo Freire (1972). Freire used PAR as a means for poor and deprived communities in South America to emancipate themselves from within an oppressive education system, to improve their literacy and resist their oppressors (Mertens, 2009). He argued that the self-reflective characteristics of the action were fundamental to the process (Johnston & Forrest, 2020). Freire's seminal work was further built on by Colombian sociologist Orlando Fals Borda, who applied this participatory approach to social research. He was instrumental in turning PAR into a coherent school of practice (Gutiérrez, 2016), and through his work with Indigenous leaders and engagement with Indigenous knowledge systems, shaped some of the core principles of PAR, including that participants are the knowledge producers and hold epistemic privilege over their lived experiences (Dudgeon et al., 2020).

PAR has grown as a methodology, recognised as an empowering process that respects the co-researchers' knowledge and enables researchers to work in partnership with community to facilitate action for change (Baum et al., 2006). More recently, Israel et al. (2012, pp. 8–11) described the nine guiding principles of PAR as a research methodology:

- Acknowledges community as a unit of identity.
- Builds on strengths and resources within the community.
- Facilitates a collaborative, equitable partnership in all phases of the research, involving an empowering and power-sharing process that attends to social inequalities.
- Fosters co-learning and capacity building among all partners.
- Integrates and achieves a balance between knowledge generation and intervention for the mutual benefit of all partners.
- Focuses on the local relevance of public health problems and on ecological perspectives that attend to the multiple determinants of health.
- Involves systems development using a cyclical and iterative process.
- Disseminates results to all partners and involves them in the wider dissemination of results.
- Involves a long-term process and commitment to sustainability.

PAR is an iterative process of successive formally structured action research cycles, where each cycle builds on the previous one (Baum et al., 2006; Lawson, 2015). Each PAR cycle is a structured reflective process of 'Look, Think, Act' (Stringer, 2007; Figure 8). In each cycle, questions are asked to identify the issues, information is collected, and findings are analysed and discussed collectively to instigate appropriate actions for change, followed by a reflection on the process.

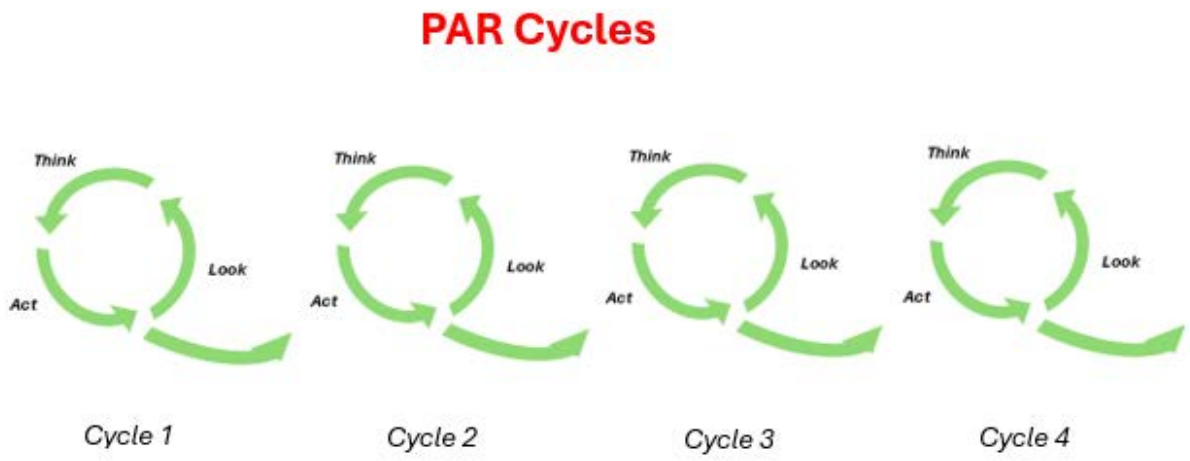


Figure 8: PAR Cycles (adapted from Stringer, 2007)

Each of the cycles may use a variety of methods to execute the action, including interviews, meetings or focus groups, and are fluid and adaptive to suit the unique and individual circumstances of each community (dé Ishtar, 2005; Johnston & Forrest, 2020). Lewis (2009) used community-based PAR to explore the successful ageing of Alaskan Native Elders. He described a successful PAR project as one that is built on trust and rapport with the community. Lewis (2009) also reflected that the research process of PAR is more important than the research outcome, because it is based on the principles of community participation and capacity building. Engaging co-researchers in all parts of the research inquiry further strengthens trust and understanding (Stringer, 2007). Health research that is conducted with Indigenous communities can inform culturally safe and responsive health care (Bailey et al., 2022). PAR has been recognised as effective in Indigenous health research both nationally and internally (Baum et al., 2006; Dudgeon et al., 2020; Fredericks et al., 2011), with many studies demonstrating its value (Caxaj, 2015; de Crespigny et al., 2004; dé Ishtar, 2005; Esler, 2008; Laird et al., 2021; Lewis,

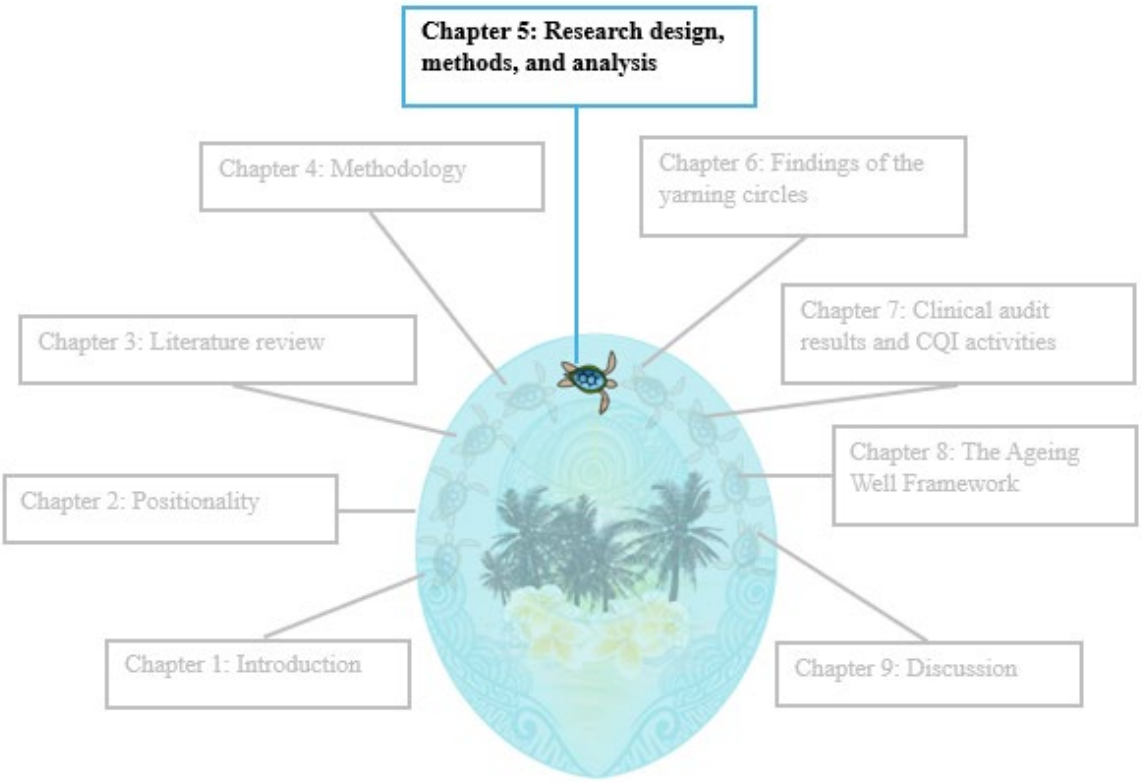
2014a, 2014b; McFarlane et al., 2016; Pace, 2020; Peltier, 2018; Tsey et al., 2002; Wright et al., 2023).

4.6 Chapter summary

In this chapter I have outlined the methodological approach to this research. I have explored my ontological, epistemological and axiological position within a transformative paradigm. I have discussed the overarching philosophy of decolonising research and have shown how Indigenous research principles are used within the study. I have concluded the chapter with a justification of the use of PAR for this research.

The following chapter details the methods used for this research, linking them to the methodology outlined in this chapter. I describe PAR Cycle One (yarning circles), PAR Cycle Two (clinical audits), PAR Cycle Three (CQI activities) and PAR Cycle Four (the identification of principles and action strategies to be incorporated into the Ageing Well Framework). I discuss the trustworthiness of this research and provide ethical considerations.

Chapter 5: Research design, methods and analysis



5.1 Chapter outline

In this chapter, I describe the four PAR cycles: yarning circles, clinical audits, CQI activities and the development of the Ageing Well Framework. The description of each cycle includes details regarding the methods used, participant recruitment, data collection and data analysis. See Figure 9 for an illustration of how these cycles align within a PAR methodology.

The constructs of credibility, dependability, confirmability and transferability are also applied to establish the rigour and trustworthiness of the data, and, ultimately, the findings of the study. Attention to ethical considerations concludes the chapter.

5.2 Yarning circles

This first cycle of PAR addresses the first research question, ‘What does ageing well mean to Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and

Northern Peninsula Area?' Yarning circles were used to explore concepts of (1) how ageing well was perceived by Aboriginal and Torres Strait Islander Peoples living in this region, (2) the barriers and enablers specific to the culture and traditional lifestyle that support ageing well and the prevention of chronic disease and comorbidities, and (3) specific environmental, cultural, spiritual and other priorities for living well while ageing.

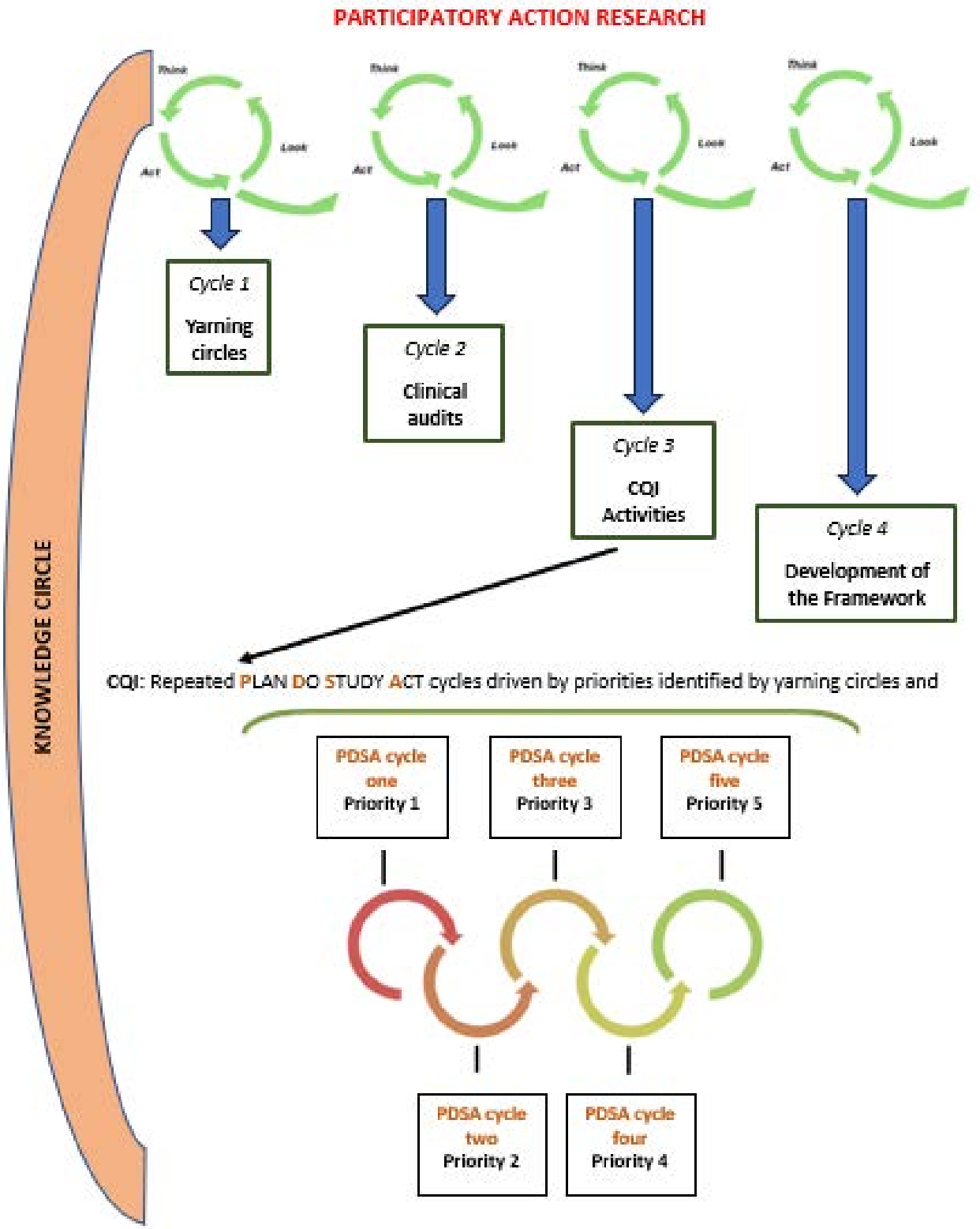


Figure 9: Overview of Study Design

5.2.1 Yarning as a research method

Yarning is a traditional Indigenous method of sharing knowledge through story telling (Barlo et al., 2020; A.-L. Byrne et al., 2021; Murrup-Stewart et al., 2021; Walker et al., 2014). Yarning, as a method of data collection, fits within an Indigenous research paradigm, one that centres Indigenous voices and engages with Indigenous knowledge and perspectives, contributing to the process of decolonisation (Atkinson et al., 2021; Fredericks et al., 2011; Walker et al., 2014). As a research tool, yarning facilitates open and in-depth discussions in a culturally safe place, allowing Indigenous people to talk freely in an informal manner. This generates rich data and in-depth insights into specific topics (Bessarab & Ng'andu, 2010; A.-L. Byrne et al., 2021; R. L. Smith et al., 2020; Walker et al., 2014). Data co-generated through yarning enhances the rigour and credibility of the research process (Bessarab & Ng'andu, 2010; Shay, 2021). Utilising yarning circles as a research method centres Indigenous knowledge systems, emphasises the importance of relationality and ensures adherence to cultural protocols, thereby fostering culturally safe research (Atkinson et al., 2021; Barlo et al., 2020, 2021; A.-L. Byrne et al., 2021; Shay, 2021).

Yarning circles are widely recognised as a suitable approach for facilitating yarning with Aboriginal and Torres Strait Islander Peoples in Australia (Barlo et al., 2020; Bessarab & Ng'andu, 2010; Geia et al., 2013; Johnston & Forrest, 2020). Yarning circles provide a space to explore locally relevant knowledge that can inform culturally relevant understandings of health experiences (Geia et al., 2013; Walker et al., 2014). Yarning circles have been used to generate evidence to inform culturally appropriate programs that address the pressing health issues of Aboriginal and Torres Strait Islander Peoples within Australia (Bryant et al., 2024; Butler et al., 2020; Carlin et al., 2019; Cullen et al., 2020; C. Gibson, Crockett, et al., 2020; Hamilton et al., 2020; Lukaszyk et al., 2017; Marriott et al., 2019; Meiklejohn et al., 2019; Murrup-Stewart et al., 2021; Walker et al., 2014), as well as internationally (Caxaj, 2015; Chilisa, 2012; Di Lallo et al., 2021; Doria et al., 2021; Haozous et al., 2010).

Bessarab and Ng'andu (2010) described four components to the yarning circle process: social yarning, therapeutic yarning, research topic yarning and collaborative yarning. The social yarn starts the process and lays the groundwork for the research topic yarn, assisting in building a relationship between the participants and setting the rules. The next step is

the research yarn, the purpose of which is to gather information related to the research topic. The yarn can switch between two further components, the collaborative yarn, where participants can discuss and share ideas, and the therapeutic yarn. The therapeutic yarn occurs if sensitive and traumatic information is disclosed, and allows the researcher to provide a safe space for the participant to voice their story without judgement.

5.2.2 Yarning circle training

It was important as a non-Indigenous researcher, working through a decolonising approach and adhering to Indigenous research principles, that I gain as much knowledge as possible about co-facilitating yarning circles. Along with other members of the research team, I was fortunate to have training in yarning methods on two separate occasions with Indigenous experts in the field. Prior to the study beginning, we had training with Professor Yvonne Cadet-James. Professor Cadet-James is a Gugu Badhun woman from the Valley of Lagoons in North Queensland, and is renowned for transforming Aboriginal and Torres Strait Islander health research in Australia (https://www.nhmrc.gov.au/about-us/news-centre/celebrating-25-year-legacy-aboriginal-and-torres-strait-islander-health-research-nhmrc). As part of the day-long training workshop, we role-played and explored yarning as a data collection method. Further on in my research journey, as part of another research project that I was involved in, we participated in yarning circle training with Professor Dawn Bessarab, a Bard/Yjindjabandi woman and an expert in Indigenous research and qualitative methodologies. Professor Bessarab has been at the forefront of efforts to introduce yarning methods into academia (https://research-repository.uwa.edu.au/en/persons/dawn-bessarab; Bessarab & Ng'andu, 2010).

5.2.3 Yarning circle sites

Yarning circles were held in four island communities in the Torres Strait and two communities in the NPA: Ngurupai Island, Kirriri Island, Wug Community on Moa Island, Warraber Island, Bamaga and New Mapoon. The yarning circles were facilitated by myself, as the lead researcher, and a Torres Strait Islander co-researcher. On most occasions, a supervisor from my panel also attended. Yarning circles were conducted at council community halls, outdoor communal settings, a day respite centre and a health

centre veranda—all locations that co-researchers were familiar with and were comfortable to meet in.

5.2.4 Yarning circle co-researchers

In line with the values of PAR and Indigenous research principles, yarning circle participants are considered co-researchers. A total of 45 co-researchers participated in yarning circles. Gathering perspectives from a variety of people from the Torres Strait Islands was important. We wanted to hear from both the older and younger generations regarding what ageing well meant to them, since their perspectives were likely to differ. I also wanted to hear from both male and female co-researchers. The inclusion criteria for co-researchers participating were therefore kept broad:

- Inclusion criteria: Aboriginal and Torres Strait Islander adults (18 years and over) from the four participating island communities and from across all five communities of the NPA.
- Exclusion criteria: No adults from the participating communities were declined participation—all voices who wished to be heard could participate.

We had limited funding to travel extensively to each of the remote communities to facilitate yarning circles, so this cycle of the PAR occurred during one visit (over several days) to each of the communities on separate field trips. We were unable to return on multiple trips to offer more yarning circles. However, to ensure that all co-researchers who wished to participate were given the opportunity, we ran extra yarning circles when they were requested, on those dedicated trips. In one community, some of the co-researchers asked whether we could run a separate yarn the following day, specifically for the older residents, which we did. We ensured that the composition of the yarning circles was determined by the co-researchers and were specific to the circumstances of each community. In some communities, gender-specific yarning circles were requested, so separate yarning circles were held for males and females, facilitated by male and female Torres Strait Islander researchers, respectively. In some smaller communities, all participants, regardless of age or gender, wanted to yarn together.

5.2.5 Recruitment

A self-selecting convenience sample of co-researchers were recruited from the participating communities. Invitations to participate in the yarning circles were facilitated through health centre staff, aged care services, promotion of the study on a local radio station, and recruitment flyers placed on community notice boards in local council offices, health centres and community stores, as well personal invitations to community members by the three local Torres Strait Islander team members who resided in the communities involved in the research. Snow-ball recruitment also occurred; for example, when co-researchers from the community wanted another yarn to be conducted for older adults, they invited older residents to come along to yarn the following day.

5.2.6 The yarn—data collection

Ten yarning circles were conducted across the six communities (location details are included above). The yarning circles were co-facilitated by one or more of the three Torres Strait Islander research team members and myself, and on occasion, another non-Indigenous team member. Two of the yarning circles that were male-only were facilitated by a male Torres Strait Islander researcher. It is recommended that yarning is embedded in language, since conducting yarning circles in language enables co-researchers to talk freely in a culturally safe environment, resulting in the collection of more in-depth information (Murrup- Stewart, 202; Shay, 2021). We encouraged co-researchers to speak in whichever language they chose. The research team's Torres Strait Islander researchers spoke Torres Strait Creole (the collective language commonly used and understood across the region), and some spoke Kalaw Kawaw Ya and Kalaw Lagaw Ya (Indigenous languages spoken in the Torres Strait). However, all the yarns were conducted in English with some Torres Strait Creole interspersed throughout, as per the choice of the co-researchers.

Yarning circles commenced with a **social yarn** that included introductions to clarify the relationships between and among co-researchers, providing opportunities to develop trust and rapport with the researchers (Bessarab & Ng'andu, 2010). Because food is a major cultural protocol in the Torres Strait (Watkin Lui et al., 2016), we provided refreshments of as part of the social yarn. In one community, this was a large community BBQ lunch held on the sea front in a communal community setting (see Appendix B). In other

communities, we provided morning or afternoon tea, which always included our home-made cakes. The co-researchers could then choose whether they would join in the subsequent research yarn, could decide how long they stayed, and could end their participation at any time during the yarn—consistent with principles of self-determination. The social yarn was not recorded.

The Torres Strait Islander research team member who was co-facilitating the yarn then introduced the **research yarn** topic in more detail, and the co-researchers were provided with information sheets (Appendix C) and consent forms (Appendix D). Although printed in English, adequate time was provided for these to be discussed in Torres Strait Creole, with questions answered by the Torres Strait Islander team members. At this point, consent was obtained from all co-researchers to audio-record the yarns. No co-researcher declined this request. Written consent was obtained from all co-researchers before commencing the audio-recording and proceeding with the research yarn.

A yarning circle guide was developed (Appendix E); however, I wanted to keep the yarn conversational and to hear free-flowing stories and perspectives. Therefore, the yarns were conducted in an informal conversational style that supported the oral tradition of Torres Strait Islander storytelling (Mosby, 2015). I went into the yarn with an open mind to listen to the stories being told. The research yarns opened with a Torres Strait Islander research team member asking the co-researchers ‘What does ageing well mean to you?’. In some of the yarns, further prompts were required (as per the interview guide) to focus the yarn on the barriers and enablers specific to the culture and traditional lifestyle that support healthy ageing. The prompts included questions such as, ‘What role does your culture play in being able to age well?’ and, with regard to the prevention of chronic disease and comorbidities, ‘How does your health affect you growing old?’ The role of environmental, cultural, spiritual and other priorities for living well while ageing was also explored, with prompts such as ‘How does living in this community support you to age well?’, ‘How do your family, friends and community support you to age well?’, and ‘What are the things that are important to you as you grow older?’ Without requesting any identifying information, the co-researchers were also encouraged to think of someone in their community that was ‘growing old good’ and describe why they thought that person was ageing well. The duration of the research yarns varied from 30 mins to 100 mins.

I took field notes about the context of the yarn, which included details regarding who attended, where we yarned and any location/venue difficulties. I also noted my own reflections on how the yarn went, what could have been improved, any non-verbal communication picked up during the yarns, any reactions observed to specific points, the relationships between co-researchers and a general 'feel' of what was being said. After finishing the yarn, and after the co-researchers had left, I debriefed with the Torres Strait Islander research team member(s) to gain their thoughts and reflections. I specifically wanted to know whether there was anything from a Torres Strait Islander perspective that I may not have picked up on or recognised. These field notes helped in the analysis of the data, and specifically, the construction of codes.

Pragmatically, data collection ceased after facilitating yarning circles in all six communities. Nevertheless, the data collected was rich enough to demonstrate data sufficiency, and the rigour of the analytical process demonstrated analytical sufficiency (V. Braun & Clarke, 2021; LaDonna et al., 2021).

5.2.7 Yarning analysis

The yarns were recorded using a digital recorder. I transcribed them verbatim, with two Torres Strait research team members translating the sections where Torres Strait Creole was spoken (into English). Some basic well-known Torres Strait Creole words, such as 'kai kai' (food) and 'Aka' (grandmother), were kept written in Creole, consistent with an Indigenous research approach and to stay as close to the data as possible during analysis. All data was de-identified. This transcription process was time-consuming but allowed me the privilege to deeply engage with the data. After data transcription was complete, the transcripts were checked by two Torres Strait Islander research team members to ensure the accuracy of the transcription and to allow those research team members to re-engage with the data prior to analysis.

The data analysis method was guided by V. Braun and Clarke's (2022) reflexive thematic analysis (RTA) methods. RTA is an interpretive approach to analysing data across a range of theoretical frameworks that facilitates the identification of themes across a given dataset (V. Braun & Clarke, 2022). It addresses research questions that explore people's experiences, perceptions, behaviours and factors that influence a particular phenomenon, as well as constructing the meaning of experiences (V. Braun & Clarke, 2022). It is an

appropriate method for analysing yarning research (Murrup-Stewart et al., 2021). In RTA, the researcher's reflexive engagement with theory, data and interpretation, and the importance of the researcher's subjectivity as an analytic resource, are emphasised (V. Braun & Clarke, 2022). The six phases that outline the process of RTA were used to guide the analysis for this research (V. Braun & Clarke, 2022), incorporating additional processes for Indigenous involvement, as follows.

1. *Familiarising yourself with the dataset*

During and after transcription, I read and re-read the data to become familiar with the content. I made notes and used my field notes to make analytical observations on individual transcripts, and on the entire dataset of the 10 transcripts. This familiarisation phase of the data is important to be able to identify information that is relevant to the research question (D. Byrne, 2022).

2. *Coding*

Coding is a technique used for analysing data to identify patterns and concepts that will later become themes (D. Byrne, 2022; Mills, 2014). Coding involves organising the data to produce descriptive or interpretive labels for pieces of information in the data (D. Byrne, 2022). A coding framework was developed by myself and was refined with three other research team members (one non-Indigenous and two Torres Strait Islander) and my primary PhD advisor. The framework was based on the initial observations of the data, the research questions and the existing literature. I then coded all 10 manuscripts using the framework, employing NVivo12 software (QSR International) for data management. This initial coding of the data was undertaken systematically using a complete coding approach, where any item of data that might be useful in addressing the research question was coded (V. Braun & Clarke, 2022; D. Byrne, 2022). This was an iterative process of coding, recoding, and re-reading the transcripts and field notes. After refinement, 46 codes were generated. Each code was given a description of its parameters, and after coding was completed, a code summary. The two Torres Strait Islander research team members independently reviewed and confirmed the coded data.

3. Generating initial themes

In this phase, I explored the coded data to develop potential themes by asking questions of the data such as *What is this person trying to tell me? What is this person doing? What is this saying? What does it represent? What is this an example of? What do I see is going on here? What is happening? What kind of events are at issue here? What is trying to be conveyed?* Here, my focus shifted to the interpretation of meaningfulness across the whole dataset. Using a mind map, I also explored connections and relationships between codes, and considered how different codes could be combined according to shared meaning or whether one code was representative of an overarching narrative. This generated the initial themes. During this phase, I had to let go of potential themes that were not fitting into the narrative (V. Braun & Clarke, 2022). An example of how phases 2 and 3 were processed is provided in Appendix F.

4. Developing and reviewing themes

To ensure that the analysis process upheld Indigenous values and ways of knowing, it was critical that the two Torres Strait Islander research team members were involved in the analysis. This is when we did our 'yarning about the yarning'. The preliminary work produced from 'generating the initial themes' (phase 3 above) became our yarning topic. Using orality for data analysis upholds Indigenous research principles and paradigms (Mafile'o et al., 2024). The two Torres Strait Islander team members shaped the thought processes and provided their own perspectives, generating new themes and combining others, intertwining Indigenous ways of knowing into the themes that I had initially generated as a non-Indigenous researcher. In this 'yarning about yarning', we also assessed how well the themes provided an interpretation of the data that addressed the research question, 'What does ageing well mean to Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and Northern Peninsula Area?'

The themes were combined into seven overarching themes. These seven themes were then discussed between us, other research team members and my primary PhD advisor, until consensus was achieved, and the final themes derived.

5. Refining, defining and naming of themes

Continuing with our 'yarning about yarning', we built a story from the data. Stories can be used in research to generate data and disseminate findings regardless of the research methodology used (Mills & Birks, 2014). Creating a story goes beyond merely recounting data; it requires a deep analysis and involves crafting a narrative that conveys key messages by synthesising and integrating the data in a structured manner (Mills & Birks, 2014). All themes should align to form a clear narrative that accurately reflects the data and provides answers to the research question (D. Byrne, 2022). At this point, we also identified which co-researcher data excerpts to use when presenting the findings.

We went on to explore how the themes, through story, could be presented through a Torres Strait Islander lens. As an oral-centric culture, Torres Strait Islanders organise and transmit knowledge around visual metaphors. These metaphors are concrete and explicit (physical, often nature-based objects), and are a common Torres Strait Islander way of explaining more abstract concepts in a comprehensible and relevant way (Mam, 1993; Mosby, 2015). They are often grounded in land and story, and are illustrated (Mosby, 2015). Through these discussions, it was decided that the themes should be represented using the metaphor of the wongai tree. Metaphors have the potential to deepen our understanding of a phenomenon; however, since they vary from culture to culture, the comprehensibility of the metaphor in cultural terms needs to be considered (Carpenter, 2008).

The wongai tree is significant in Torres Strait Islander culture as a traditional food and carving material, and the seeds are used as jewellery. The wongai tree also features in Torres Strait Islander stories, and a well-known legend states that whoever eats the fruit of the wongai tree is destined to return to the Straits.

Figure 10: Photo of the Esplanade on Waiben (Photo credit: Rachel Quigley)

The wongai tree (*Manilkara kauki*) is an Australian native fruit tree from the Sapotaceae family. These trees are present across the islands of the Torres Strait. They have been recorded to live for over 130 years and can reach heights of up to 20 metres. Their root system is tough and extensive, and the trunk is strong. The tree produces edible 3–4 cm long fruit that are hard and green on the outside, then turn orange, then turn red, then purple and soften as they ripen. Each fruit contains one or two hard tan-coloured seeds. The wood of the wongai tree is hard and dense, making it suitable for carving. The spatula-shaped, evergreen leaves are clustered in whorls at the end of the branches. The tree also produces a milky white sap (Lim, 2013).

Significant wongai trees on Waiben include a tree situated outside the Federal Hotel, which was planted in 1900 and damaged by Cyclone Otto in 1977. A small wall has been erected around it for protection, and it has since regrown and remains healthy.

Figure 11: Photo of the Wongai tree outside the Federal Hotel, Waiben (Photo credit: Rachel Quigley)

Another notable tree on Waiben grew in front of the National Bank, but it died after incorrect care. The story relayed is that grass clippings were inappropriately heaped against the tree trunk, contributing to its demise. The leaves gradually became discoloured and fell off, and it eventually died (Sagigi, personal communication, 16 May 2023).

Presenting the findings using a metaphor and an accompanying story provided an alternative to the Western paradigm of academic research reporting and corresponds with a decolonising approach.

6. Writing up

When writing up the themes, it was important to us that we ended the story on a strengths-based narrative. Reporting the final theme of 'Demonstrating strong sustained life: regrowth' focused on a positive approach to ageing well, rather than problematising Torres Strait Islander Peoples, aligning with a decolonising approach.

The findings (Chapter 6) have been disseminated in various formats. A condensed version has been published to meet academic requirements (Appendix A). However, it was important that the results were presented back to the communities in a way that was

relevant and meaningful. A lay version (Appendix G) with wongai tree illustrations has been printed and disseminated across the region. Feedback from the Knowledge Circle was that an animated version would be well received. This animation is currently in production through a collaboration with the local Torres Strait radio station (TSIMA Radio 4MW).

5.3 Clinical audits

This second PAR cycle relates to the clinical audits. Audits of patient health records provide information about the frequency of the current provision of recommended care (Gibson-Helm et al., 2016), and they are fundamental in presenting data from clinical services that are not adequately generated by existing clinical information systems (Laycock et al., 2020). The objective of the audits was to identify strengths, gaps and limitations in current clinical practice and health service provision. This information could then be used by PHCC staff to inform quality improvement activities.

5.3.1 Developing an audit tool

I specifically developed an audit tool—the Healthy Ageing Audit Tool (HAAT) (Appendix H)—to collect service data pertaining to current practice from the electronic medical records of adults attending the primary health service. This audit tool is based on best practice care regarding the domains of ageing and chronic disease management. In developing the tool, I utilised existing best practice guides, such as:

- *National guide to a preventative health assessment for Aboriginal and Torres Strait Islander people* (National Aboriginal Community Controlled Health Organisation & Royal Australian College of General Practitioners, 2018[2]).
- *CARPA standard treatment manual. A clinic manual for primary health care practitioners in remote and Indigenous health services in central and northern Australia* (Centre for Remote Health, 2017[3]).

[2] The RACP have updated those guidelines—the 4th edition (2024) is now available. However, the HAAT was completed using the 3rd edition (2018).
[3] The CARPA manual has also been updated to the 8th edition (2022). However, the HAAT was completed using the 7th edition (2017).

- One21seventy: *Preventative services clinical audit protocol 2014* and *Vascular and metabolic syndrome management clinical audit protocol* (Menzies School of Health Research, 2014, 2015).

As part of my research agenda more broadly, I was involved in three other HART research projects developing clinical audit tools to measure best practice care in Indigenous communities, and those tools were also drawn on. The first examined best practice dementia care in Aboriginal Community Controlled Organisations (Bradley et al., 2020; Hughson et al., 2020), the second explored safeguarding against dementia in Aboriginal and Torres Strait Islander communities (Hornby-Turner et al., 2023), and the third developed a best practice audit tool for dementia care in Indigenous residential aged care (unpublished at time of writing). The HAAT also reflected the recommendations from the WHO's (2015) domains of ageing, which should be considered when exploring healthy ageing.

The HAAT comprised 73 items collecting information on clinical performance and health indicators from 12 clinical and care domains (Table 3).

Table 3: Clinical and Care Domains of the HAAT

Domain
Demographics
Attendance at health service (including MBS claims)
Diagnosis and medications
Risk factors, management and review
Clinical measurements and investigations
Systems examination
Scheduled services
Mental health and socioemotional wellbeing
Cognitive functioning
Support services (including aged care)
Allied health involvement
Functional assessment

The HAAT was also designed to identify a Health Service Response (HSR) to any abnormal findings or areas of concern identified through test results, screening or through

clinical consultations. A HSR included any of the following: repeat testing +/- monitoring; prescribing, modifying, or deprescribing medication; advising on lifestyle behaviours; implementing or reviewing a management plan; instigating further investigations; referring onto allied health professionals, or medical specialists; referring to internal or external programs or interventions; providing information on apps or online resources; prescribing assistive devices; and transferring to a hospital for further treatment.

The HAAT was built in REDCap™ (https://project-redcap.org/), which is a secure web application for building and managing online databases, and is hosted through James Cook University. Since it was initially envisaged that IHWs from the participating PHCCs would be involved in the audits, I produced an accompanying guide to conducting the audits (Appendix I).

Clinical and research team members reviewed and refined the survey tool, which I then piloted (n = 158). Following these, further amendments were made to align with current best practice, such as classifying hypertension as a systolic reading of ≥140, rather than the cut off of >130/80 that was initially determined.

5.3.2 Audit data collection

Best Practice™ (https://bpsoftware.net/) is the software used by the TCHHS as the electronic patient medical record for primary healthcare across the Torres Strait and NPA. A waiver of consent and approval from Queensland Health, through the *Public Health Act 2005* (Qld), was obtained, enabling me to access clients' electronic medical records (Appendix J).

A client list of all residents aged 18 and over was generated from Best Practice. To be included in the audits, clients needed to meet the following criteria:

- adults 18 years and over
- be a resident of the community where the audit is being conducted
- have attended the health service for a face-to-face appointment or telehealth appointment within the last 12 months (this does not include a script or documentation being printed for the patient).

All electronic medical records of eligible clients from the five participating PHCCs were then audited (Kirriri n=158, Ngurupai n=391, Wug n=160, Warraber n=119). Because the eligible number of clients in Bamaga was too large to audit within the timeframe (n = 916), the research team decided that, for pragmatic reasons, a random subsample (n = 300) would be audited. I generated a randomised client list using Excel's randomisation tool. Data was collected for a 12-month period prior to the date that the audit took place, with auditing completed between March 2022 and August 2023, concurrently with PAR Cycle One (yarning circles).

Initially, when discussing the research design, the PHCCs indicated that they would be able to allocate time to the IHWs to work with me to collect the audit data. However, this proved difficult since clinical priorities and staff shortages for the PHCCs meant that the audits were continually postponed on my field trips. Adding to this difficulty were the ramifications of the COVID-19 pandemic and being unable to travel to the communities. Problem-solving this with staff from the PHCCs and the research team, it was agreed that I would access the medical records remotely and proceed with data collection independently. De-identified client information was directly entered into REDCap.

After completion, a spot check of the data with full re-audits of randomly selected charts (n = 55) was completed by another member of the research team who was not involved in this research study, to assess the reliability of the data collected. Accuracy was calculated at 99.82%. Where errors were identified, the data was rectified.

5.3.3 Audit data analysis

The REDCap data were exported into an SPSS file (IBM SPSS Statistics, Version 30) for analysis. The data were cleaned and re-checked for errors. Descriptive statistics were undertaken and described using sample size, frequencies and proportions.

5.4 Continuous quality improvement

This third PAR cycle relates to the continuous quality improvement (CQI) activities. CQI is a structured, cyclical approach that focuses on improving organisational systems and processes to meet or exceed expectations. In a healthcare setting, CQI is defined as a structured organisational process involving healthcare personnel in planning and implementing a continuous flow of improvements to provide quality health care (Bailie

et al., 2007; Gibson-Helm et al., 2018; McCalman et al., 2018). This is achieved by healthcare staff identifying and removing the barriers to providing good quality care through the ongoing use of objective data to identify quality issues, analyse performance, and develop and implement improvements (Larkins et al., 2016; National Aboriginal Community Controlled Health Organisation, 2018). A CQI approach emphasises a system-wide, collaborative effort to enhance efficiency, effectiveness and client health outcomes. Through a process of ongoing learning and sharing, CQI fosters ownership and builds quality improvement capacity, while avoiding personal blame for issues (R. Bailie et al., 2008; Gibson-Helm et al., 2016; The Lowitja Institute, 2015).

The WHO promotes CQI as a key driver within the healthcare workforce to address the challenge of tackling chronic illness (WHO, 2005), and CQI has now evolved as a global approach for improving healthcare quality (The Lowitja Institute, 2015). CQI has been found to be effective in managing chronic disease internationally and within Australian PHC settings (Hengel et al., 2018). There has been a strong uptake of CQI within Aboriginal and Torres Strait Islander PHCs to strengthen clinical care on a national scale (Gardner et al., 2010; Laycock et al., 2020). This uptake has been advanced through the Audit and Best Practice for Chronic Disease project, which was designed to support evidence-based best practice in the prevention and management of chronic disease in Aboriginal and Torres Strait Islander PHC services in Australia (Bailie et al., 2007). The One21seventy entity continued the service support for CQI nationally (Menzies School of Health Research, 2010). At the national policy level, there has been growing policy commitment and government investment to support CQI within Aboriginal and Torres Strait Islander PHCs. The Australian Department of Health commissioned a cross-sector *National CQI Framework for Aboriginal and Torres Strait Islander Primary Health Care 2015–2025* (Lowitja Institute, 2015) and invested in the development of the *National Framework for Continuous Quality Improvement in Primary Health Care for Aboriginal and Torres Strait Islander People, 2018–2023* (National Aboriginal Community Controlled Health Organisation, 2018) to embed CQI within Aboriginal and Torres Strait Islander PHCs.

The core elements of CQI makes it highly suitable for the Australian Indigenous context. Its participatory approach, with a customer focus, aligns with Indigenous research principles relating to values and ethics, increasing the acceptability in the Aboriginal and

Torres Strait Islander PHC setting (R. Bailie et al., 2017; R. Bailie et al., 2010; Gardner et al., 2011; Larkins et al., 2016; Woods et al., 2017). An extensive evidence base of successful CQI processes exists within Aboriginal and Torres Strait Islander PHCs, designed to improve the quality of care (Larkins et al., 2019). Specific studies have found improved best practice care relating to diabetes (Bailie et al., 2007; Marley et al., 2012; Matthews et al., 2014; McDermott et al., 2003; Schierhout et al., 2016; Si et al., 2010; Stoneman et al., 2014), maternal and women's health (Diaz et al., 2019; Dorrington et al., 2015; Gibson-Helm et al., 2015, 2016, 2018; Rumbold et al., 2011), rheumatic heart disease (Ralph et al., 2013), child health (McAullay et al., 2018), cardiovascular risk (Matthews et al., 2017; Vasant et al., 2016), eye care (Burnett et al., 2016), sexual health (Hengel et al., 2018; Nattabi et al., 2017; Ward et al., 2013), mental health (Gausia et al., 2013; McCalman et al., 2016; Puszka et al., 2015), health promotion (O'Donoghue et al., 2014; Percival et al., 2016), general preventative health (R. Bailie et al., 2011; C. Bailie et al., 2016; J. Bailie et al., 2017; J. Bailie et al., 2019; Si et al., 2007) and studies aiming to address the social determinants of health (Bailie & Wayte, 2006; Laycock et al., 2020).

5.4.1 Implementing CQI

Before commencing the research, in May 2019, I attended a workshop masterclass 'Organisational and health system culture: Engaging staff and managers in continuous quality improvement'. This workshop was hosted by the Centre of Research Excellence in Integrated Quality Improvement (CRE-IQI), facilitated by two experts in CQI from CRE-IQI who worked in Indigenous health research. The workshop provided me with strategies and ideas for engaging and supporting health services in CQI, which proved valuable when facilitating CQI within the PHCCs.

In line with Indigenous research principles and the community inclusion principles of PAR, my approach aimed to incorporate community views and priorities for ageing well into the CQI activities. The yarning circles had demonstrated that each community had specific health priorities and differing barriers and facilitators related to ageing well, although there many commonalities across communities also existed. The following steps were taken to implement the CQI activities.

Step 1

The qualitative findings from the yarning circles that pertained to the individual communities were summarised. Since the full data analysis had not yet been completed, the preliminary themes were presented. The clinical audit data specific to the individual PHCC were displayed in a format that was visual (bar graphs and pie charts) and used accompanying infographics. The format of the data summaries was taken to the Knowledge Circle who approved the layout and style for presentation to the PHCC. Additionally, one of my PhD advisors, who is a Torres Strait Islander academic, suggested some changes to the infographics used. The data summaries provided staff with insights into their clinical practice and the priorities of communities with regard to ageing well (Appendix K).

The feedback of the results of the qualitative data from the community yarning circles, combined with the HAAT de-identified clinical data results, was presented to PHCC staff in the form of workshops. All staff including managers, clinical staff and administrative staff were invited to attend. The workshops were facilitated by the PHCC Practice Managers, or Senior Health Worker in those sites without a Practice Manager (further detail is provided in Chapter 7). The workshops presented opportunities for discussion and the development of a shared understanding of the data. This included identifying strengths, limitations, gaps in current clinical service delivery and the way in which the wider community priorities sat within the scope of the PHCC.

Step 2

Staff were encouraged to identify opportunities for clinical and/or health service strengthening activities. A list of activities was generated for all participating sites and is described in Chapter 7.

Step 3

The original project design had anticipated using Plan Do Study Act (PDSA) cycles to implement the CQI activities, and this was a tool with which I was familiar. However, to ensure that the CQI was driven by the PHCC staff, it was important that we discussed other potential tools that could be used, including Six Thinking Hats® (de Bono, 1985), Six Sigma (Ilin & Bohlen, 2023), LEAN (Radnor et al., 2012), The 5 Whys (National

Health Service, n.d.), SWOT analysis (Blayney, 2008) and flowcharting (Clinical Excellence Commission, n.d.). After consideration, all PHCCs decided on using PDSA cycles to address their priorities.

PDSA cycles are a suggested strategy used to undertake CQI within Aboriginal and Torres Strait Islander PHC. The principles and practices for conducting PDSA are described in the *National CQI Framework for Aboriginal and Torres Strait Islander Primary Health Care 2015–2025* as:

- taking a simple approach
- starting small
- helping to plan, develop and implement change that can lead to improvement
- involving the whole team in redesigning health systems and care processes to achieve improvements
- engaging teams in a continuous and incremental stream of improvement over time (Lowitja Institute, 2015 p. 7).

The PDSA is a defined four-stage problem-solving approach (Taylor et al., 2014). The way in which this was implemented within each individual PHCC is summarised in Figure 12.

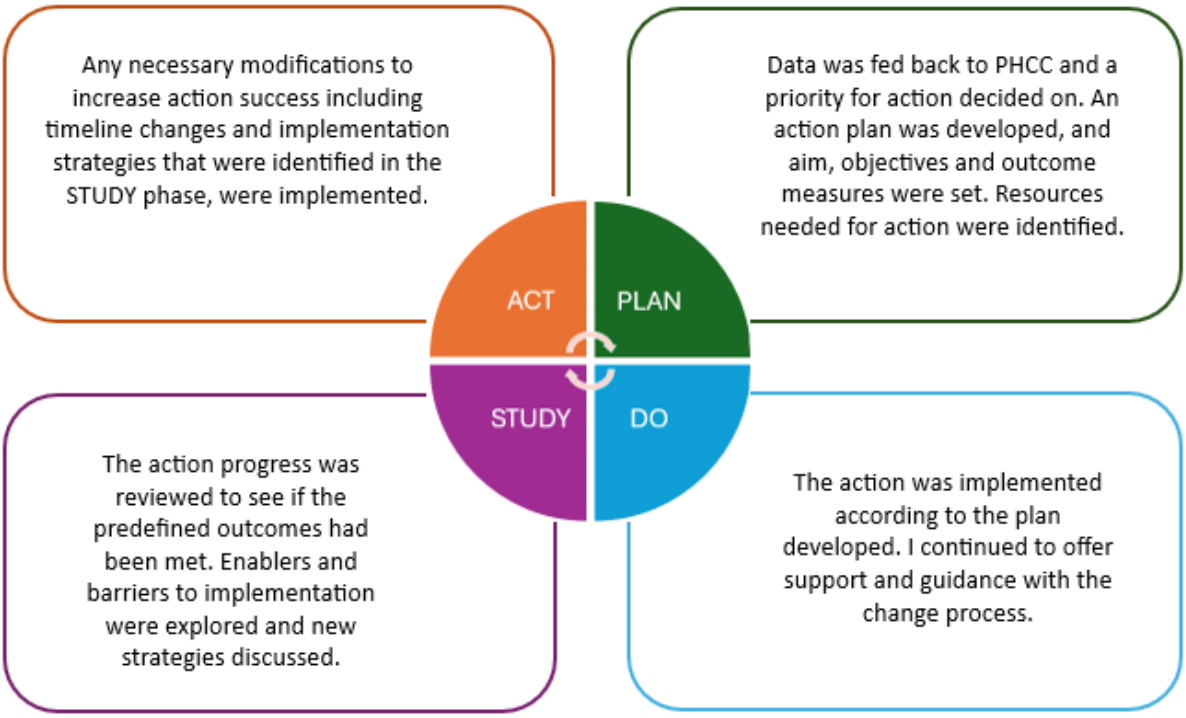


Figure 12: Plan Do Study Act Cycle

The aim of PAR Cycle Three was to demonstrate how yarning and clinic data could be used to identify CQI projects for the PHCCs, and facilitate the implementation of the cycles. The PDSA cycles identified by clinic staff, were implemented iteratively from November 2022 through to April 2025 with some cycles ongoing after the end of the research project. The timeframe set for the actions varied across priorities and across different PHCCs. Consistent with a decolonising approach, staff took ownership of these timelines, which were subject to change and dependent on other contextual factors within both the PHCC and the wider community. The findings to date are outlined in Chapter 7.

5.5 Development of the Ageing Well Framework

On completion of the CQI cycle, a final workshop was held at each of the five PHCCs. The aims of the final workshops were to discuss both the lay version of the findings of the yarning circles and a summary of the CQI activities that would inform the development of the Framework. I presented a draft of the lay summary of the findings of the yarning circles, which was reviewed by PHCC staff, and some minor details and formatting issues were addressed. I also presented a summary of the priorities identified, goals set, activities completed and activities still ongoing, or planned, across all the sites. PHCC staff discussed some of the challenges they had faced undertaking the activities,

as well as identifying new goals they wanted to continue to work on after the completion of this research. I laid out a draft proposal for the Ageing Well Framework, and staff provided input into both the format and content, which was based on findings from the yarning circles, the clinical audits and the CQI activities. Feedback from all five PHCCs was used to identify the principles and action strategies that will form the basis of the Ageing Well Framework. I developed an initial draft that was then reviewed and refined by other members of HART at a specific workshop. The draft component of the Ageing Well Framework relating to my PhD (the guiding principles, and strategies and actions) was then disseminated to the PHCCs for feedback. Once the wider Ageing Well Framework that includes the toolbox of resources is complete (see Chapter 8 for further details), it will then be circulated for feedback with other relevant stakeholders such as the Knowledge Circle, CEQ and council for further review, and amendments will be made where relevant.

The methods for the four PAR cycles have been described, and the results of these four cycles are presented in the following three chapters. The following section of this chapter relates to how I evaluated and ensured the quality of the research, along with ethical considerations.

5.6 Ensuring the quality of the study

Evaluating and ensuring the quality of research are essential considerations in research practice. Good quality research is necessary for producing evidence-based practice (Darawsheh, 2014). Establishing rigour infers that the research was conducted to a high quality, demonstrating integrity and competence (Baillie, 2015). In qualitative research, trustworthiness refers to the rigour applied to ensure the reliability and validity of the research process, and the relevance of the research (Baillie, 2015). Guba and Lincoln (1982) summarised the four criteria needed to ensure trustworthiness as credibility, transferability, dependability and confirmability. These are discussed in relation to how I adhered to them within this research study.

5.6.1 Credibility

A qualitative study is considered credible when it accurately represents human experiences in a way that those who share them can easily recognise. This means the findings are logical and reflect methodological accuracy, authenticity and transparency

(Krefting, 1991; E. Thomas & Magilvy, 2011). Justifying methodological choices further enhances credibility (Birks, 2014a; Liamputtong, 2013). Birks (2014a) suggested that without methodological rigour, a study may lose its scientific worth, proposing that there should be methodological congruence. This congruence is achieved when there is coherence between a study's aims and designs, and the researchers' philosophical position. In this study, I addressed credibility by (1) applying the most appropriate methodology—PAR—and the justification for its selection, along with my philosophical positioning (as discussed in Chapter 3); (2) employing varied techniques and methods for gathering data—yarning circles, clinical audits and CQI activities—triangulated to develop the framework; (3) using co-generation and checking data with research team members, PhD advisors, Knowledge Circle members and PHCC staff; and (4) debriefing regularly with the Torres Strait Islander research team members and my PhD advisory panel. Engaging peer debriefers enhances the credibility of a study (Creswell & Miller, 2000). Throughout the research study, regular advisory meetings were held with my advisory team, who provided guidance on methodological steps and ensured the analytical processes remained rigorous. My credibility as a researcher in the Torres Strait was further enhanced by my history of prolonged engagement in the research setting through my 20-year service delivery in the region and extensive field trips for various research activities conducted with HART over the previous 10 years.

5.6.2 Transferability

Transferability is the potential for findings to be transferred to another setting (Baillie, 2015; Creswell & Miller 2000; Guba & Lincoln, 1982). One strategy used to establish transferability is to provide a rich description of the research. I have outlined the conduct of this study in detail, including the methodology, research design, setting, context, methods of data collection and analysis, to enable others to assess the transferability of the findings and relevance to other settings.

5.6.3 Dependability

Dependability relates to the consistency of findings and the demonstration of procedural logic throughout a research study (Guba & Lincoln, 1982; Birks, 2014a). First, this research adhered to the philosophical and analytical methodologies proposed. Second, to further enhance dependability in this research, I kept detailed accounts of the data

collection and analysis procedures and maintained a robust data management system and audit trail. Maintaining an audit trail is a technique used for establishing dependability (Baillie, 2015; Birks, 2014a; Creswell & Miller 2000; Guba & Lincoln, 1982). My audit trail included a record of the research activities, a record of the rationale for the choices and decisions made in relation to the research (such as the decision not to repeat a full HAAT clinical audit—see Chapter 7 for further details), and my field notes, taken with regard to processes and analytical thinking throughout the study. This audit trail established that my actions and decisions were reasonable, and that the interpretations and conclusions were supported by the data (Baillie, 2015; Krefting, 1991). Third, having Torres Strait Islander research team members involved in the analysis strengthened its dependability (E. Thomas & Magilvy, 2011).

5.6.4 Confirmability

Confirmability relates to the extent that the findings are derived from that data, acknowledging that they were shaped by the researcher's position and influence (Baillie, 2015). It is important that researchers take a self-critical approach to how their own assumptions, beliefs and biases affect the research and be explicit in their position and influence (Baillie, 2015; E. Thomas & Magilvy, 2011). I addressed confirmability in two ways: by providing my standpoint statement and in my description of practicing reflexivity, which were described in Chapter 2.

5.7 Ethical considerations

5.7.1 Ethical approvals

Ethical approvals for this study were obtained from the Far North Queensland Human Research Ethics Committee (FNQHREC) (HREC/2020/QCH/59342 – 1406) and the James Cook University Human Research Ethics Committee (H8063). Approval was granted from 20 February 2020 until 20 February 2025. Amendments were made to extend the approval period up until 30 December 2025. All approval letters are included in Appendix L.

5.7.2 Site-specific assessment approval

This research involved the TCHHS (Queensland Government) as a research site. Research governance approval was received from the TCHHS (SSA/2021/FNQ/59342; Appendix M).

5.7.3 Public Health Act approval

To access the TCHHS Best Practice patient records, a waiver of consent was approved as part of the FNQHREC application. Further to this, approval to access patient health information from Best Practice was required from the Queensland Government under the Queensland Government *Public Health Act 2005* (PHA). PHA approval was obtained and is included in Appendix J.

5.7.4 Access to the communities—council approvals

There are three councils within the Torres Strait and Northern Peninsula Region that represent the communities involved in this research. Torres Shire Council (TSC) represents Ngurupai Island, the Northen Peninsula Area Regional Council (NPARC) represents the five communities of the NPA, and the Torres Strait Island Regional Council (TSIRC) represents the communities of Warraber Island, Wug on Moa Island and Kirriri Island. To enter the communities that sat under TSIRC management, an application must be made to the council for every visit. On arrival, visitors must sign in to the council office and follow local procedures. On all visits to these communities, applications to enter the community were made and approvals from the councillors obtained. Local procedures were followed.

5.8 Ethical practice

In addition to the six core values of the *Ethical Conduct in Research With Aboriginal and Torres Strait Islander Peoples and Communities: Guidelines for Researchers and Stakeholders* (NHMRC, 2018a) described in Section 4.4 (Indigenous research principles), this study was also informed by, and adhered to, the key values and principles of good ethical practice outlined in the 2023 *National Statement on Ethical Conduct in Human Research* (National Health and Medical Research Council, Australian Research Council & Universities Australia, 2023). These principles are research merit and integrity, justice,

beneficence and respect. These principles were adhered to, along with Indigenous research principles, in the following ways.

5.8.1 Value, relevance and appropriateness

This research responded to a community request to consider how Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and NPA could age well. The methods used in this research were appropriate for use in answering the research questions, and for conducting research with Aboriginal and Torres Strait Islander Peoples. The translational nature of this research facilitates direct improvements in health service delivery at the participating PHCCs, and the final framework can inform practice and policy both locally and nationally.

5.8.2 Voluntary participation

Information about the research study was distributed through various means within the community, as described earlier in this chapter. This information provided details of when, and where, the yarning circles were going to be held. Participation was voluntary, and co-researchers arrived at the yarns if they wanted to take part. The co-researchers could leave after the social yarn if they wished, or at any time during the yarning circles without providing a reason. During CQI activities, attendance was voluntary, and PHCC staff were informed that they could leave at any time during the workshops without reason.

5.8.3 Informed consent

All co-researchers involved in the yarning circles were provided with Participant Information Sheets. As outlined earlier in this chapter, adequate time was provided for the Torres Strait Islander team members to explain the study verbally, and where needed, in Torres Strait Creole, and to answer the co-researchers' questions. All co-researchers provided written consent prior to commencing the research component of the yarning circles.

5.8.4 Privacy and confidentiality

Permission was sought for each yarning circle to be recorded via a digital recording device. The data collected were transferred onto an electronic file, and the audio tapes

were deleted. All data were de-identified. For the reporting of the yarning circles' findings, the data were presented from a community perspective, and each community was de-identified at the level of reporting qualitative quotes. For the quantitative data presented, no identifying information was included. I assured the co-researchers that anonymity would be maintained in any conference papers or publications.

All data generated in this research were stored securely in a password-protected electronic file within JCU's online cloud storage. Paper-based data were stored in a locked filing cabinet in a locked JCU office. Access to all the data collected in this research was restricted to authorised study personnel only. Data will be retained for five years after completion of the study, then destroyed as per the ethics requirements.

5.8.5 Respect and reciprocity

Respect is a core ethical consideration that underpins Indigenous research principles. There were occasions during the research when the CQI activities seemed to be stalling, but I had to acknowledge and accept that individuals both in the PHCCs and the communities had more pressing priorities than this research. On these occasions, it was important that I stepped back and allowed the co-researchers to set the pace. This meant that some data collection field trips focused more on relationship strengthening—catching up with relevant stakeholders, participating in local events and just spending time in the community, all equally important activities.

In this research, I respected Indigenous ways of knowing, doing and being. My Torres Strait Islander research colleagues were involved in all aspects of this research, and I recognise that they made a significant contribution to the research. Torres Strait Islander worldviews were preserved in the co-constructed yarning circle findings. The knowledge gained through the yarning circles remains the knowledge of the co-researchers. The co-researchers gave permission for those findings to be included in this PhD thesis, written for an academic publication and shared back to communities more broadly across the region in a lay summary version. The Knowledge Circle endorsed these findings being made into an animated YouTube video. The sharing of knowledge is a form of reciprocity, and I, along with my HART colleagues, will continue to provide the results to individuals, organisations and communities in an ongoing process, as we continue to work clinically and with new research projects in the Torres Strait and NPA.

Knowing that the sharing of food is central to Torres Strait culture, it was important that we always provided lunch or morning/afternoon tea at all the yarning circles and CQI activities at the PHCCs. This included sharing our home-made cakes (see Quigley et al., 2021 in Appendix A for the relevance of home-made cakes). In addition to sharing food, the yarning circle co-researchers received a $20 voucher for the local store as a small token of appreciation for their time, knowledge and expertise shared. The Knowledge Circle members received a $50 voucher for every meeting they attended.

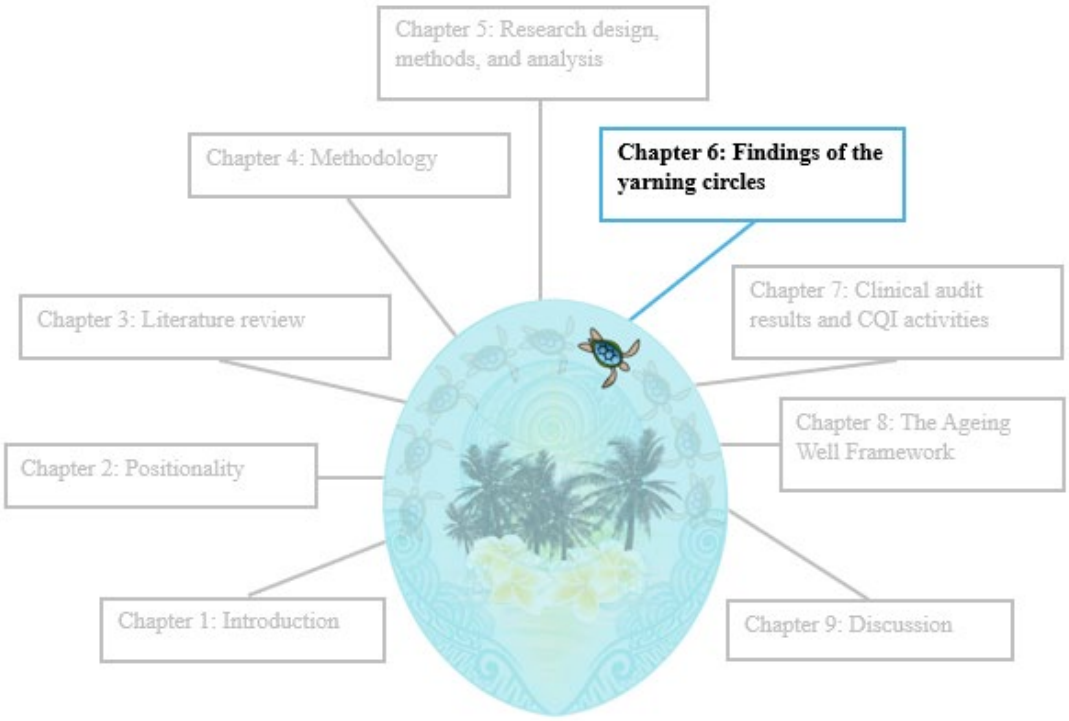
5.8.6 Adverse consequences and risks from harm

During the yarning circles, I considered the wellbeing of the co-researchers. I acknowledged that the sharing of experiences associated with health and wellbeing, and reflecting on the impacts of colonisation and traumatic events could be emotional or distressing for the co-researchers. In one yarn, when the co-researchers yarned about mental health and domestic violence, I checked whether the co-researchers wished to continue and discussed options for support through the health service if required.

5.9 Chapter summary

In this chapter, I have described yarning circles, clinical audits and CQI activities, the methods used for this research, and the method employed for the development of the Ageing Well Framework. I have outlined the constructs of trustworthiness—credibility, dependability, confirmability and transferability—and have discussed how I applied them in this research. I have provided details of ethical and governance approvals and have defined how ethical values and Indigenous research principles were addressed in the research. In the chapter that follows, I present the findings from the yarning circles.

Chapter 6: Findings of the yarning circles—Ageing well is following in the footsteps that went before us



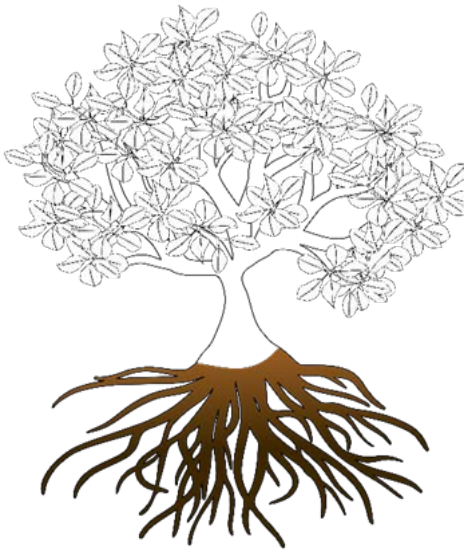
6.1 Chapter outline

The method used for the qualitative data collection—yarning circles, the first PAR cycle—was described in the previous chapter. I also explained how the data were analysed and presented using the metaphor of a wongai tree. In this chapter, I present the themes generated from the thematic analysis of the yarning circles, and in doing so, address the research question: What does ageing well mean to Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and Northern Peninsula Area?

Ageing well, as expressed by the co-researchers, is represented overall by the life and structure of a wongai tree. Each theme generated relates to an area of the tree that best described the interpretation of the findings. These thematic dimensions are represented as (1) living a Torres Strait Islander way of life: the roots, (2) practicing Torres Strait Islander identity: the trunk, (3) living a healthy lifestyle: the branches, (4) displaying strong leadership and role models: the leaves, (5) passing on knowledge, tradition and cultural practices: the fruit, (6) experiencing adversity: damaging events and (7)

demonstrating strong sustained life: regrowth. Representative quotes were selected to illustrate these themes. The quotes are labelled with codes to indicate which community (C, 1 to 6) and yarning circle (YC, 1 or 2) within that community provided the quote.

6.2 Living a Torres Strait Islander way of life: The roots



The Torres Strait Islander way of life laid the roots for a healthy life, and in turn, healthy ageing. The co-researchers described how connections to their Island Home, family, friends and community, as well as the interactions and support arising from those relationships kept them strong and therefore supported ageing well. Those networks spread out extensively like the roots of the wongai tree, and like the wongai tree roots, supported all that grew above them. The roots of the wongai tree are also responsible for absorbing the water and nutrients required for the growth of the tree, just as the connections and relationships formed through the Torres Strait Islander way of life foster wellbeing and health for the co-researchers.

A deep connection to the co-researchers' roots—their Island Home—was explicit from all the participating communities. Being on traditional lands and in island community contributed to their overall health and wellbeing, '*Having a beach day, the beautiful view, the land, and the sea means so much to our health up here. We've always got that place where we go*' (C3Y1). The co-researchers wanted to grow old in their community, and stay in their homes and on their traditional land, '*I would rather stay here and get older*' (C5Y1). There was a desire to access health care and aged care services locally and not

have to move 'off island' to go into aged care, '*We want to stay here […] This is our home; we don't want to leave our home* [to go into a RACF off island]' (C4Y2). If the co-researchers did have to go off island, they described a perceivable decline in their health and wellbeing, '*My blood pressure when I was staying down south was 160 or whatever, it was really high! Came back home and its just 80, 80s, makes a big difference*' (C3Y1). For those off island, a strong yearning to return home was evident, '*when they go in there* [RACF off island], *they desire for come home. My mother-in-law is at* [hospital on the mainland] *at the moment and all she wants to do is come home*' (C3Y1).

Connections to family as part of the Torres Strait Islander way of life were central and promoted ageing well. Being with family was a great source of joy that kept people strong and happy, '*Ageing well, it's very simple, in my life experience, it's* [being with] *my family*' (C6Y1). Grandchildren in particular afforded older people with the motivation to keep going and provided them with a purpose in life, often through the responsibilities and structure needed to raise them. Grandchildren kept the older person active and on their feet:

> *[I] like to look at my grandkids and great grandkids. I'm happy with them. Looking at them as they are growing up and I'm growing old, they still make me happy. I get some energy from them; I am feeling good about them.* (C5Y1)

In return, grandchildren provided unconditional love. They provided acceptance when some of the older co-researchers felt less valued, '*the thing about grandchildren is they have that unconditional love that their parents have forgotten*' (C1Y1). Older co-researchers appreciated the support shown to them from their children and grandchildren, and assistance also was provided to the carers of the older adults, '*I moved to come back, because the support was here amongst families* [to help with caring responsibilities] (C2Y2).

Connections to the wider community as part of the Torres Strait Islander way of life were also discussed as promoting ageing well. Connections to, and contributing to, the wider community kept the co-researchers grounded, gave them a sense of purpose, were a source of joy and provided co-researchers with feelings of belonging:

> *They [older adults] actively engage, they actively laugh, they actively socialise, and that's how I want to be when I get to their age, still a part of the community, still pulling my weight and making sure that community has a function.* (C1Y1)

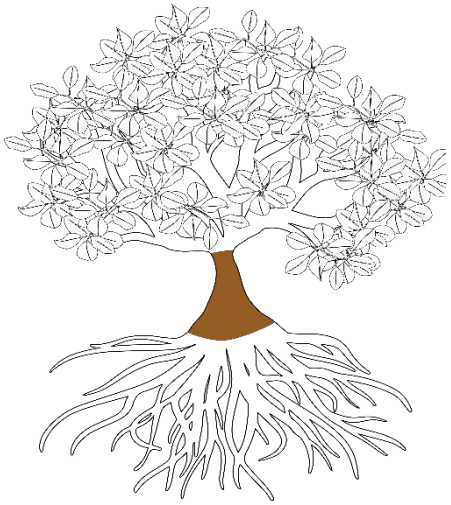
Community was also a great source of support, both practically, '*we still come together as a community and help each other out when need be and share things together*' (C2Y1), and emotionally. One co-researcher shared, '*We sit and talk […] If I feel down, I talk to my cousin. And other people come to me, and we can talk about it*' (C4Y2).

Being part of a community provided co-researchers with opportunities to socialise and do the things that made them happy, '*The best night we had at the council break-up, council meeting, is when we had everyone out on the floor for dance*' (C1Y2). That social connection was seen as an important factor that supported holistic wellbeing. It provided opportunities to yarn and laugh, '*when you go out and have a yarn, a laugh, and forget those worries, it's like a battery charger, they're re-charging your batteries each time when you meet up with one another*' (C2Y2). Social interactions also provided opportunities for both physical and mental stimulation, '*I like to come here* [day respite] *and enjoy myself, talking to other clients, doing activities with our hands and feet. Moving and my brain's, like my mind's thinking. It's a good thing we have*' (C5Y1). Generally, the co-researchers looked forward to growing old with their family and friends by their side and participating together in the things they enjoyed. '*I like to grow older, and I like to come here* [HACC day respite centre] *with the other elderly people* […] *where we can sit and have fun with other clients in here and do activities*' (C5Y1).

Being able to meet community obligations to support older adults to stay in the community was important to the co-researchers. This collective intergenerational responsibility to care for community members as they aged meant that the knowledge and wisdom held by them was retained in the community, and provided support and positive influence for the younger generations following. The co-researchers described how it was a community responsibility to care for their Elders, and if an older person had to move away, that took away the opportunity for the community to fulfil their responsibilities. By leaving the island, the community did not get chance to practice their cultural obligations and community cohesiveness was disrupted, '*if we could have a facility where we care for our own people, our Elders. We have carers here, but it would be good to have a facility where the community can look after everybody, all the Elders*' (C3Y1).

Connections to Island Home, community, friends, and family, and the relationships formed by those connections, were fundamental to the Torres Strait Islander way of life. Those connections and relationships may not always be apparent, just as roots of a tree are not always visible, but these connections ran deep and extensively. Similar to the roots of the wongai tree, the connections were strong and intertwined, providing the strength for all that grew above.

6.3 Practicing Torres Strait Islander identity: The trunk



Torres Strait Islander identity, practiced through cultural activities and traditions, provided strength and wellbeing through the continuum of life, and consequently supported ageing well. This theme is symbolised by the trunk of the tree rising up from the ground. As the wongai tree grows, it has a direction and takes on its shape, just as the identity of being a Torres Strait Islander is shaped through practicing tradition and culture, enabling growth, strength and resilience. The trunk of the tree must be strong to combat the harsh sea winds, to be resilient against disease and to have longevity, and, similarly, traditions and culture need to remain strong for the co-researchers to age well. Where cultural traditions were lost, the integrity of identity was weakened, and the co-researchers described a loss of direction, symbolic of the growth of the tree being inhibited:

> *[Some of the younger generation] they have no plan, they have no direction, they have no understanding, and they don't know who we are. They can say 'I am a Torres Strait*

> *Islander', or they can say 'I am an Aboriginal' but that is as far as it goes with them. They just say, 'I'm that'. They don't understand the depths of where we come from, who we are, what kind of people, what have our ancestors done, prior to where we are today, how did they live then.* (C6Y1)

Cultural traditions remained strong for many, however, and the co-researchers explained how participation in cultural events such as island dancing, feasting and craft activities facilitated growth, often through the opportunities to gain traditional knowledge, and this contributed to ageing well, '*Every time there was a feasting in our [community]—like a gathering or a cultural activity—I'm always there, learning knowledge'* (C1Y1).

Cultural practices also contributed to strengthening the social and emotional wellbeing of individuals. Such practices, such as hunting, feasting and conducting Sorry Business, were associated with respect and values. The co-researchers described how community and family functioned through a cultural hierarchal structure in which everyone knew what their role and responsibilities were, both within the family and within the community:

> *What does it look like to be ageing well? This is it here. The cultural practices come with respect, acknowledgement, two ways, and contributes to the social and emotional wellbeing for individuals, families and communities, the structures. When I say cultural hierarchal structure I mean within the community, within the family, it comes down, so there are all those different tiers […]. In that [cultural hierarchical] structure there is that acknowledgement of the processes, the wisdom and knowledge that comes with ageing and all that stuff. That is good ageing.* (C6Y1)

Several co-researchers gave examples of how traditional cultural practices promoted physical activity, healthy eating and social interaction, while providing for the needs of the community as a whole. One such example was traditional hunting, where hunters would fish and share the food with the community. One co-researcher explained that this sharing of food meant that everyone was able to eat, the community came together to share food and because the food was shared by many, the portions were healthy sizes, '*the intake becomes portioned* […] *small portion*' (C6Y1), and the hunter would have participated in physical activity.

As the sap of the wongai tree travels up and down through the trunk carrying nutrients to enable growth, it passes through the old and up to the new. This process continues

throughout the life of the tree. However, some co-researchers lamented that, in a modern society, Western societal demands (the business of living) had taken precedence, and so no time was left for traditional, cultural activities:

> *So, it is my responsibility to teach [name]'s son how to hunt and do certain things as the uncle or whatnot. But today I am too busy, sorry, I can't teach your son because I have to work in order to provide an income for me and my wife and our family. Time is taken out.* (C6Y1)

Despite the influences of Western society, the co-researchers reflected on how important it was for cultural traditions to continue to be practiced and integrated into modern culture to '*find a balance*' (C6Y1) and to ensure continuity.

Each year that passes adds more height and width to the wongai tree trunk, but it is the base of the trunk, the oldest part from years gone by, that is the broadest and the strongest. This is symbolic of how co-researchers saw the traditional lifestyle of '*days gone by*'. The way of living from the '*olden days*' was seen as one of strength and good health. The co-researchers reminisced about the way in which the traditional ways of living promoted good ageing, '*In the olden days there were no diabetics, no high blood pressure because of the way of living, the way they ate and everything, walking*' (C5Y1). The co-researchers talked about how it was a much simpler life, but often a harder life, for the older generations, and their parents and grandparents:

> *We lived the hard life. Life is very easy today and at your fingertips. Before people grew up with a very hard life, they had to get our food and the fuel to cook it. Now it's just walk in a switch on the switch to get the light on, the food already [prepared] to eat.* (C5Y1)

The co-researchers reflected on how '*back in the day*', people were less materialistic and only obtained things if they were really needed, rather than in today's society when often life is about keeping up with the trends and acquiring the latest gadgets. For many, those traditional ways of life were more about survival compared with a modern society, where life is easier and everything is available at the touch of a button:

> *The statuses that existed in those communities before time. You had your hunters; you had your gatherers. You had your old people. Your old men would be doing their stuff. The old women would be doing their stuff in regard to perhaps providing care for the*

> *young while the mothers would be out doing other things. So, we're going back to that age lifestyle […] Every minute of sunlight meant something. It meant survival […] Not today. We press the button and it's there. Too much sitting on your backsides.* (C1Y1)

The co-researchers described the physicality of everyday life in the past. People would do a lot of hard physical work in their everyday tasks. This included activities such as going out to collect firewood for lighting and cooking, managing their gardens, carrying water from wells, going out hunting and gathering food, and rowing boats when out fishing or for transportation. These activities kept them fit and healthy and contributed to their longevity, '*I didn't buy her coconut cans from the shop. I scraped, I cleaned and scraped coconuts.* […] *It's only that little bit hard work but guess what you benefit from it? I've got muscles I never knew existed from scraping*' (C1Y1).

The co-researchers also described how routines in the past differed from those in today's life. In earlier times, people would '*do their thing all day and then 6* [pm] *at night they have their tea and then go to bed*' after an active day. There was no time for frivolous things, '*you're on the Facebook or watching movie*', since they needed to use all daylight hours productively to survive. (C6Y1)

Eating traditional food and traditional ways of sourcing food were seen as significant factors that contributed to ageing well, and were described as being of importance in the past:

> *I remember as a kid my parents we would always live off garden food back in the days. I see my grandfather living with us and he had a good age. We never had dementia back then. Like now we have the cancer and chronic conditions, and more people are dying in the past few years from cancer.* (C6Y1)

Most people would garden and eat the food that they grew. That type of food was considered healthier, more satisfying and less expensive than the processed store-bought food used now, '*The food that we have been grown up with, would keep us healthy. People used to have gardens of their own with banana, cassava, sweet potato, pumpkin, and watermelon*' (C5Y1), and '*our grandparents didn't believe in white people food, they just ate garden food*' (C2Y1). The majority of the diet comprised food that was grown or hunted, with very little being purchased from the store, '*Back in the old days, traditional food, it was grown, caught, whereas now, all these processed foods*' (C1Y2), and

‘*Everything was out the garden, lots of fruit trees, five corners, wongai. We didn’t have a shop*’ (C3Y1).

The traditional way of life was seen to facilitate healthy longevity, through both a better diet and more physical activity, with the co-researchers describing how their ancestors lived longer lives:

> *My grandmother, she passed away when she was 93, to go as far as 93, she was very blessed with her life, and just looking back to what she was doing as a young person. There was a lot of physical activities, eating from the garden, diet. I think that’s what brought her to that age, that ripe full age, she was.* (C6Y1)

This longevity was achieved despite the absence of medical services and health centres, ‘*They passed on when they were old. There were no medical services at that time. No health centres and that*.’ (C5Y1).

The co-researchers also described how life was more cognitively challenging in the past, ‘*there was no easy solution to anything you had to work it out for yourself […] as Elders are not going to solve the problem for you*’ (C6Y1). Consequently, these problem-solving skills helped developed resilience, which was seen by some as missing in the younger generation, ‘*they start being disconnected with the real world and life experience*’ (C6Y1). This younger generation was seen to be lacking the skills needed for a long and healthy life.

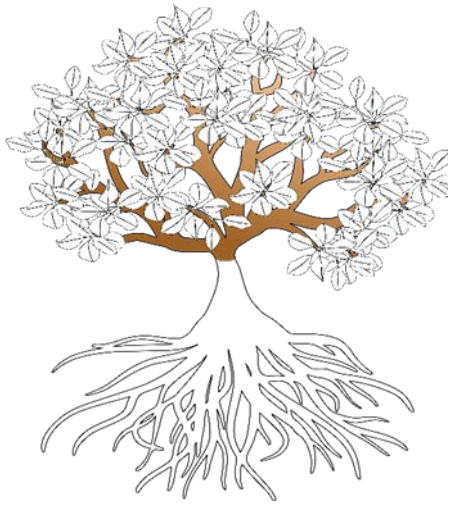
Learning important values, including respect, was central to traditional ways of life in Torres Strait Islanders. The co-researchers reflected on times when it had been the norm for families to sit together and yarn with grandparents, learning values and morals:

> *When I was young and small, we would always go to our grandparents’ place and they would yarn stories and there was a moral to them stories, you know if you switch on, that comes into play when you are older.* (C6Y1)

For some co-researchers, there was a belief that the values they learnt as children contributed to good health in their older years. ‘*Back in the day*’, there was a perception that discipline was stronger, ‘*you did something wrong you got disciplined*’ (C1Y1), and consequently, children tended to respect their parents more than they did in today’s society.

Ageing well was described as following the ways of your predecessors, '*If we want to age healthily, we've got to start doing—follow our footsteps from before us especially if we want to stay strong and not fall by the way*' (C1Y1). The traditional way of life of living off the island, interacting with community, practicing cultural activities and maintaining values kept people strong and enabled them to live long lives free from chronic disease. In '*days gone by*', the cultural practices and traditional ways of living promoted self-sufficiency, along with designated roles and responsibilities that fostered respect, and these contributed to good health.

6.4 Living a healthy lifestyle: The branches



A healthy lifestyle, which included physical, mental, cultural and spiritual domains, was critical to ageing well. All aspects were connected, and if any one of those was lacking, it affected the health of a person. To age well required a balance across the domains and a holistic approach. A healthy lifestyle for the co-researchers is symbolised by the branches of the wongai tree. Branches grow in all directions and are different sizes, but they must be balanced—they do not all grow from one side of the tree. If branches are missing, the tree becomes unstable and more susceptible to adverse forces:

> *[Ageing well] It's holistic. It's the whole thing—culture, I guess, whether it's spiritual, healthy eating, also wellbeing, individual wellbeing, psychological, but also socially as well, social with people. Interactions. Having everything, they all intertwine and makes a person. If one is out of balance the rest are unbalanced. For a healthy person I think everything needs to be all equal and level.* (C6Y1)

The co-researchers across different communities reflected on aspects of life that contributed to ageing well and how these aspects were connected:

> *If I were to age well, I'd be connecting to the environment […] Your body, mind, soul, and spirit connect to the environment around you. For me, to age well, I would be doing that, and family, ties with your families, emotional and all these kinda [sic] things, social and emotional.* (C6Y1)

Although living a healthy lifestyle was seen as a holistic concept, the co-researchers singled out specific elements of importance that influenced ageing: mental health, physical activity and diet. These are represented as balanced branches of the wongai tree.

6.4.1 Mental health as a branch

The co-researchers explained that having strong mental health was important to their overall health, supporting longevity and QoL, '*I think the mental side of it is really powerful, it drives a person. So, to be healthy I guess is to look after your mental wellbeing*' (C6Y1). Several co-researchers emphasised how good mental health can influence good physical health, and for some, having positive social and emotional wellbeing affected how they felt in all aspects of life, '*If their mind frame is right, they are happy with their health, happy with their income, happy with their whatever, they have good family connection, good spiritual connection, good cultural connections*' (C6Y1).

However, some co-researchers expressed concern about the mental health issues that were ongoing in their communities, and how these issues were affecting people's wellbeing. One male co-researcher explained:

> *When you lose an immediate family member, one or two family members, it's that ability to hold that grief internally, because a lot of Torres Strait Islander men […] absorb a lot of that stress […] when they lose a loved one, so we don't talk about, we don't sit down with people and say 'you know I still miss ...'. We walk around harnessing all that and what it does, is builds up that mental stress in our lives, we're not aware of what we're doing internally, until something happens then externally someone sees that […] he just got upset with someone because […] but they don't know the build-up. When you go to someone and say, 'how are you?', their response will be*

> *'I'm OK', but that's just that external side that they want you to see but internally they are battling issues in their lives. We all are.* (C3Y1)

It was recognised that support was crucial for those with mental health concerns, '*[mental health] services need to be more active over here. Have counsellors come over here and just to make sure that there is no, you know, knowing that there is help out there*' (C2Y2). The co-researchers highlighted the importance of discussing the significance of mental health with friends and family, as well as being open about any issues being faced:

> *If we have a problem we share. If we have a hard time with our husband like, boyfriend, then we share. We share, she can share. You can work out how you going to change this […] Going through domestic violence for me, I went really down, it was hard, but thank God for my sista [sic] there. We would talk together. Mentally for me was, I was depressed.* (C4Y2)

Strength was gained from sharing problems, and for many, family did provide support and checked on each other's mental wellbeing, '*If my sister text me and she is not feeling well then, I go over and see her, or I ring her, or pass messages to check she is doing OK*' (C4Y2). For many co-researchers, their faith and church played an important role in providing support, '*Just having a pastor. The church leaders giving encouragement if you are feeling down*' (C4Y2). For other co-researchers, formal services had been beneficial, '*The* [Social and Emotional Wellbeing Officer] *showed me some apps where I could go on and do stuff for myself for mental health, like meditation and all of that. It was really good*' (C3Y1).

6.4.2 Physical activity as a branch

Another lifestyle factor that was singled out as having a significant influence on ageing was physical activity. Some communities discussed how active their communities were, '*I think that the community is very physical, they do a lot of activities outdoors*' (C3Y1), and how some communities had organised sporting activities such as darts, AFL, rugby, Zumba and island dancing, which encouraged community members to exercise, '*when the football girls do their exercise, the community joins in too*' (C3Y1). Some communities employed a Healthy Lifestyle Officer (HLO) to promote activities, '*The HLO tried to bring the ladies in to go for a walk around the island*' (C4Y2), and '*they have organised circuit training after hours*' (C3Y1). However, others appreciated how

the natural environment of their island communities was an ideal place for exercise, '*The gym is the hill, the beach, the reef, the creek*' (C3Y1), and they did not need to rely on formal venues or planned activities. Other less formal activity came from the incidental exercise associated with daily chores and being active in the garden and community.

The older generations were seen as good examples of remaining active and how that helped with ageing, '*There are those elders who were up at dawn chucking line off the reef here to catch fish for their children. So, these elders here they're going to be around for a lot longer. Why?—because they are still physically active*' (C1Y1).

The co-researchers described how the older generation '*are still very active*' (C1Y2), continuing to do outdoor physical activities such as fishing, walking to the shops to do their shopping and often carrying back the groceries, staying active looking after grandchildren, keeping involved in community activities, attending HACC and staying engaged in cultural practices, and this is what '*gives them a long life*' (C1Y2).

Conversely, it was noted that the younger generation were generally less active and seen outdoors less frequently, '*I don't see them* [children] *outside playing sport*' (C5Y1). Some community members were trying to instil into the younger generation that exercise is healthy, '*I try put it on my kids to keep that* [active] *lifestyle but some of them have their own lifestyle now today*' (C1Y2), and attempting to facilitate their ageing trajectory by getting them involved in sporting activities:

> *I've been able to support young people by taking them to sporting venues, getting them away from the island, and trying to get them included in all sport, all things that are positive for building healthy bodies, creating active outgoing minds.* (C1Y1)

6.4.3 Diet as a branch

Diet was singled out and discussed extensively across all communities as a lifestyle factor that influenced health, consequently influencing how one aged, '*The way we eat affects the ageing*' (C4Y2). The co-researchers discussed how a diet rich in fruit and vegetables, and fresh fish, as well as portion control, was considered healthier and ultimately contributed to longevity. Many co-researchers reflected on the change in dietary habits from a more traditional diet that promoted health and ageing well to one that was less healthy:

> *Many things, [were eaten] like sweet potato, pumpkin, watermelon, corn, cassava, beans, tomato. At the moment people stop making gardens. In our time we live on gardens, live on sea. Everything was fresh. Fresh food, fresh fish, fresh gardening. We would eat a lot of coconut, no soft drink, just coconut water. This day if you feel thirsty you get a can of coke.* (C4Y1)

The co-researchers acknowledged that today's diet contains more processed items and that '*they didn't have the sugary content that we have today. They had sugar cane which was natural*' (C3Y1). This is leading to a rise in chronic health conditions, *'I think it's got a lot to do with diet too because of all the processed food now that's on the market*' (C6Y1). Many co-researchers understood that a modern diet was contributing to ill health at a younger age:

> *The diet for me, we liked eating food from the ground. You can't go wrong. Our grandmother and mum do our own gardening. What I say to my kids, 'I didn't have diabetes when I was young, but now you guys are younger than me and youse [sic] are diabetics, see, it's what you eat.' It's wrong.* (C4Y2)

Cooking methods have also changed, with more fried food eaten today than previously, '[back in the day] *when you cook it, you either roast it or boil it. There was no oil available*' (C6Y1).

It was noted that people are not gardening as often now, '*Now-a-days you don't get many people doing gardening and stuff, to get fresh kai kai* [food]' (C4Y1). The co-researchers shared that people were less inclined to grow their own food, or to go out fishing or into the bush to hunt, since it was easier and more convenient to buy it from the store, '*Probably people get lazy. They would rather buy than grow*' (C5Y1).

There was a perception from many co-researchers that the younger generation did not have knowledge about growing or cooking their own food, and that their habits had changed, '*They* [younger generation] *need to know how to cook and grow their food*' (C1Y2), and '*With the kids, through teaching and learning about how things were used to be done, we need to teach them about growing food traditionally and trying to get them off all the fast food*' (C1Y2). The co-researchers spoke about their desire for education on healthy food options, '*it's stuff that we don't know*' (C2Y2), and needing more information about how to cook healthily with the food that was available to them.

The co-researchers described the challenges associated with sourcing fresh food on their island communities, including availability and cost, which influenced the choices they made. They noted that the cost of food, especially fruit and vegetables, was high, which made it a less appealing choice and could make healthy eating prohibitive, '*When you go the IBIS shop the diet food is more expensive than white food, so we have no choice, we have to buy that because the proper food is so expensive to us*' (C4Y2). In addition to this was the need to feed large families. In these situations, food had to go a long way, so it was often nutrient-poor, filling food that was served so that it could feed many, rather than considering more expensive healthier options:

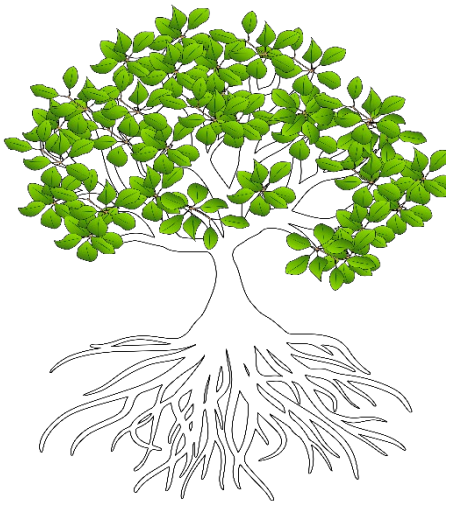
> *The majority of the family here are big family, so that's when the rice and the flour come in, to fry scones to make sure that everyone's fed. The damper, damper is one of our main diets, but you know what that has in, and that's pretty much killing our people right there.* (C2Y2)

Food security was also seen as an issue. The availability of staples was sometimes dependent on the supplies coming up from the mainland, and it was considered sensible not to rely solely on a supermarket that may face supply issues, '*Sometimes in Torres Strait, we run out of flour and things like that. Some things from the shop, the boat doesn't run*' (C5Y1). However, the co-researchers saw the return to home-produced food as a means to both address food security and produce healthier products:

> *Don't move away from the gardening because one day those boats won't come. So, food security is an issue for healthy ageing and it's not about buying it from the shop, it's about getting actively involved* […] *and get that back.* (C1Y1)

The branches of the wongai tree provide strength and support the canopy of leaves and fruit, as well as providing a storage area for the nutrients that are required to help the tree grow and promote a healthy metabolism. Similarly, the lifestyle factors described influenced the ability to age well. Where mental health, physical activity and diet were all in balance, health and ageing well flourished. When any one of those factors were negatively affected, health and ageing well were hindered. All aspects of a healthy lifestyle are vital to maintain health, just as all branches are needed to contribute to the tree's health.

6.5 Displaying strong leadership and role models: The leaves



Strong leadership and role models within the community facilitate ageing well. This is symbolised by the leaves of the wongai tree. The function of leaves is to produce nourishment for the tree through photosynthesis. Similarly, strong leadership provides sustenance to the community. The leaves of the wongai tree are evergreen, but at times, die as a result of disease or ageing, and fall to the ground. Where leaves fall, they are recycled into organic material at the base of the tree, producing nutrients that are absorbed into the soil to enable stronger growth. Symbolically, like the leaves of the tree, when leaders pass, their strength is passed on (recycled) to enrich new growth within the community. When old leaves die, new leaves grow and take their place, because without leaves, the tree will not survive. This process was reflected in the co-researchers' description of what community leadership meant for ageing well. Leadership within the community played an important role in setting a moral compass and providing structure. Where there was a lack of a generation of leadership (fallen leaves), that structure failed; however, as a new generation of leaders emerged (new leaves), new strength and renewed sustenance was brought to the community. The canopy of leaves also acts an umbrella of shade for all those underneath. Similarly, leaders provided protection to their community by acting as strong role models for those below them, especially with regard to ageing well:

> *We have to lead by example. I'm approaching my Eldership now, but we have to lead by example, and we have to lead in such a way that if they [the younger generation] see us healthy then they will be healthy. If they see us make the change, they will make*

> *the change whether it's culture, whether it's education, whether it's picking up something and helping others.* (C1Y1)

The co-researchers reflected that people in leadership roles were able to facilitate change within the community. At community events, they were well placed to give advice, '*people would look to* [them] *and they'd give the advice, and everyone would follow in a sense, they were overseers*' (C3Y1).

The co-researchers described how leaders were positioned to set good examples, pass on knowledge and cultural practices, and provide mentorship. However, they reflected on times when there was nobody to take on those leadership roles. This led to the demise of cultural practices and a decrease in knowledge being passed on to the next generation:

> *What we found out with the leadership of the community, is that those guys that are in their fifties going up to sixties now, there was an age group there that was missing, we used to learn from all them grandfathers, all them Athes [grandfathers], so when this age group started to go missing, the ones that should have been the next in line to be the teachers and those guys to hand down that knowledge and information to the next generation, because we were watching them, not knowing that there was a generation behind us watching us, so when that generation wasn't doing their leadership role in the community, then there was a disconnection, there was no-one to stand up and advise culturally, spiritually, there wasn't that advice there.* (C3Y1)

It was acknowledged that the community needed strong leadership to provide a structure within community and act as positive role models, '*it's that self-supportive system where everyone plays their role within, whether it's feasting, funeral, everybody knows the role of leadership*' (C3Y1). The co-researchers described a good role model as someone who set a good example to other community members and were instrumental in passing on knowledge and culture. They did not necessarily have to be an Elder, but needed to have a good moral compass:

> *We have a garden club. So, we go round to people's homes and if they want to dig up and plant cassava or anything [they do the gardening]. All ages [involved]. Our president and vice president, they're all young boys, twenties, thirties. They're loving it! And at that [young] age, good role models.* (C3Y1)

The importance of respect and other values were also associated with leadership. It was through cultural practices that values, including respect, within the community were demonstrated. An older co-researcher described the way she was shown respect in her community:

> *If I go out anywhere, where I'm invited, where we share food, they tell the young ones, 'Stand back there' let us have the food first, a lot of respect. All the young boys and girls from the community, if they see old person, they help them. Make them stand back and let all the old ladies, all the Elders there, before they themselves get the food.* (C5Y1)

The co-researchers described how in '*days gone by*', there was an expectation that you listened, and paid respect, to the older adults in the community, '*It's respect for your old people and I say this because I come from a background where we always respect Elders*' (C2Y2). It was expected that the younger generation listened to their parents and Elders, learning from their knowledge and wisdom, and following their examples. From this, you were able to learn good morals and values. If you did not listen to your Elders, there were consequences to that, as well as punishment:

> *In the old days, in our times, if you don't listen [to your Elders] you get belting from our parents. We got used to that system where your parents gave you a belting. They growl us. Tell us to get out. That's what happened in that generation.* (C4Y1)

The older co-researchers appreciated and valued respect being shown to them, and felt that it contributed to their overall wellbeing when ageing, '[being an older person] *all of them nephews they listen to me when I ask them to do some things for me, so* [ageing well] *can be done if we have respect*' (C2Y1).

Upholding the values they learnt as children kept the older co-researchers strong, '*The men, the women, they know how the teaching and them values that have now been when they were brought up, they keep those values today and that's a big contribution to their health*' (C3Y1). However, some co-researchers felt that the younger generation had lost that respect for their Elders, '*The respect is gone [from the younger generation]*' (C6Y1), and many were struggling to reinforce those values and manners with the younger generation, '*In our time we listened to what our parents were telling us, and we learnt from it, from the mistakes we made. But the younger ones, they think they know it*' (C4Y2).

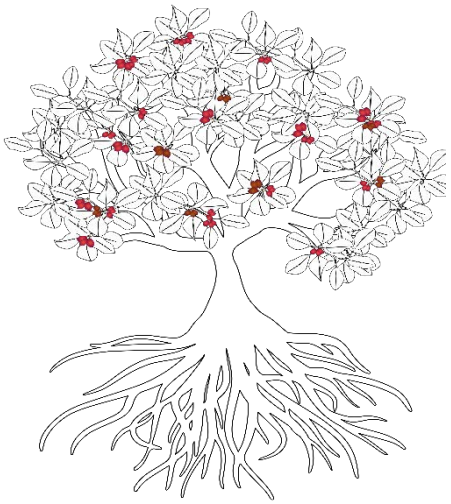
Many co-researchers perceived that the lack of respect displayed by the younger generation was leading to behavioural issues, '*We didn't have the problems with, you know we can't control our children today because they won't listen, whereas values then [were stronger]*' (C3Y1).

Many co-researchers described how the reduction in cultural activities has added to the loss of values among the younger generation, because being taught about traditional practices also included being taught about the importance of respect for Elders, as this young adult co-researcher explained:

> *Me and my younger brother when we were 16, 17, we didn't drink alcohol like nowadays they smoke, they drink. Like after school we always go walking on the reefs, gather fish, mud crabs, all of that and take it home to my Elders. Just seeing that now like the communities are dropping, like losing the family respect, like the traditional practices, respect.* (C1Y1)

Similarly to the leaves of the wongai tree, strong leaders and good role models within the community provided sustenance and protection to the wider community. Despite one generation experiencing the loss of good leadership (falling of leaves), a new generation of leaders (new leaves) was described in some of the communities. This younger generation was able to follow in the footsteps of their Elders past and present. Being shown respect was a marker for ageing well. Being respected by community meant that older adults felt valued and appreciated, providing satisfaction with their lives as they aged. For the younger generation, being brought up with notions of respect contributed to a healthy lifestyle and laid the foundations for a healthy ageing trajectory.

6.6 Passing on knowledge, tradition and cultural practices: The fruit



Passing on knowledge, tradition and cultural practices was seen as key to healthy ageing. This is symbolised by the wongai fruit. The main function of a wongai fruit is to spread the seeds (the nuts) contained in the fruit to ensure the continuation of its species. Similarly, the passing on (the spreading) of knowledge and culture is fundamental to the continuation of the Torres Strait Islander way of life, and consequently influences the ageing trajectory. Therefore, the wongai fruit represents the reproduction of knowledge, tradition and cultural practices.

The co-researchers described the ways in which they were able to pass on cultural practices such as hunting:

> *Share things with them [grandchildren]. Provide advice to them. Teach them about our life as saltwater people including fishing, to make spears, harpoons. I tell them when you sit down with me, I will pass on the information to you all as I am getting old.* (C2Y1)

Feasting and island dancing were other opportunities to pass on traditions, '*When there are feastings and things like Island dancing, they teach, and it's passed on*' (C1Y2), as well as the teaching of traditional craft activities, '*The Aunties are well known for doing things like weaving, cooking, I suppose that's how the younger generation asks them in community*' (C1Y2).

Passing on knowledge brought benefits not only from those that were learning, but also from those that were teaching. For the Elders, it gave them pleasure to know they were sharing their wisdom and skills, '*It is important to me to pass on my knowledge and culture. Now, today all the boys say, "we should go and sit down with Grandad and learn. He will explain to us how to make the harpoon*" *'* (C2Y1). Passing on knowledge also provided the older generations with a sense of purpose and fulfillment from being able to transfer skills and language to the young children and seeing their joy in learning from an Elder:

> *Them kids, they say, 'nice to see you aka [grandma/name]', because they were happy to see me because of what I tell them, and explain for them, like, what's true and what's not true, and I [taught] them dances and song, and today I talk to my grandchildren, teach them lingo, and tell them what is right and what is wrong.* (C2Y2)

The process of teaching kept the older person active and connected to their community, '*We try to share this [traditional ways] in our women's group, this year we are just started doing our women's group. And to share those kinds of ideas to the younger ones*' (C4Y2).

For those being taught, the co-researchers had a sense of gratitude that they had learnt and heard the wisdom, and were then in a position to pass that onto the next generations, as this co-researcher who worked in the aged care sector described, '*I have the best job in the world. I sit with* [the older generation] [and receive] *wisdom all day every day—wisdom*' (C1Y1).

The co-researchers reflected on '*days gone by*' when there seemed to be more opportunities to pass on skills and knowledge to the younger generation. At community events where the whole of community attended and shared in cultural practices, younger people asked lots of questions, learned all about those traditions and wanted to learn how to do the activities, '*Young people were there and asking questions, 'Why are you doing this?' 'What are you going to do with that?' Questions coming from the young generations. Young people wanting to learn the skills*.' (C6Y1). However, for many co-researchers, there was a sense that the passing on of knowledge between generations had diminished. This was not due to a lack of desire to teach, but because the younger generation were not showing much interest in learning, '*It's different now. This generation don't like listening to what we tell them*.' (C5Y1). For some of the older co-

researchers, this resulted in feelings of being devalued in that the lack of respect for their knowledge meant a lack of respect for the person holding the knowledge, '*Us Elders are getting old you know. They* [younger generation] *need to sit with us and ask questions about what they are supposed to do. No one turns up*' (C5Y1).

Across all communities, a sense of urgency existed about ensuring that the traditional skills and knowledge were passed on before it was too late, as stated by this older co-researcher, '*The younger ones, we need to teach them before we go down*' (C5Y1). For some younger co-researchers, there was an acknowledgment that the older generation held valuable knowledge that needed to be saved. One co-researcher described the wealth of knowledge and wisdom held by Elders in the local RACF, '*the most richest place you could ever find in the Torres Strait is the* [local] *Aged Care Facility*' (C1Y1).

For those younger co-researchers who did recognise the importance of learning from their Elders, they took the opportunity:

> *Coming back to the Straits now after three years of being away and just seeing the community now it's like Elders, they're passing on and knowledge that they have are passing on with them […]. Like every piece of opportunity I had, like time opportunity I had to spend with the Elders I always took it.* (C1Y1)

In some instances, there was a thirst for knowledge, '*Young people want this feasting, where* [there is] *learning and passing knowledge to them, so they can pass it on*' (C3Y1). In such cases, the Elders were keen to share their skills with the next generation, making an effort to pass on knowledge and language, '*We have very few who want to know and learn. But we sit with them*' (C5Y1). However, despite the perceived lack of interest, some older co-researchers stated that they would continue to share knowledge, and hope that the younger generation would be persuaded to see the benefits of learning from them:

> *They [older generation] passed it [cultural knowledge] onto their children, their children have passed it onto their children. So, this generational change you have the good and then you have the bad […] only way we do things is we just continue on, we never give up, hoping that one day they'll see. They'll have that mindset to appreciate then they'll be part of the fold.* (C1Y1)

Other older co-researchers felt that the onus was on the younger generation to want to learn, '*I talk to all my kids, to all my grandkids about what I was doing before, what we ate. We can tell our young generation, but it is up to them to listen*' (C4Y1).

Some co-researchers described the benefits gained from coming together within the community, including the opportunity for all ages to learn from one another, and how that would hopefully engage the younger generations:

> *I like them kind of gatherings too, I also like to listen for [that] helps me to grow too. It's simple, old people, and young people to grow, we learn from each other, and if you can keep doing with that, you will be able to pull them younger ones.* (C2Y2)

Being able to pass on wisdom and knowledge was seen an indicator of ageing well, and this was reinforced through cultural practices and traditions. Like the function of the wongai fruit, passing on knowledge, tradition and cultural practices ensured the continuation of the Torres Strait way of life, which encompassed health and wellbeing. Where a seed falls, a new tree grows. Similarly, planting the seed in the new generation and growing that knowledge within them enables the continuation of knowledge transfer to future generations.

6.7 Experiencing adversity: Damaging events

Damaging events have had an impact on Torres Strait Islanders' way of life and identity, ability to live a healthy lifestyle, pass on knowledge and maintain leadership roles. The data associated with this theme describe how the impacts of colonisation, inequitable access to services, modern-day challenges such as the influence of social media and technology, and the broader social determinants of health have affected the ability to age

well. This is symbolised by the damage sustained by the wongai tree from events such as cyclones, which break off branches, blow off leaves and fruit, cause root damage and expose the internal trunk, allowing disease and rot to take place.

6.7.1 Impacts of colonisation as a damaging event

The co-researchers likened colonisation to a rot that had penetrated their society, similar to the rot of a tree. Ill health was described as a consequence of colonisation, '*We have a cultural hierarchal structure and practices which worked. Being tampered with have dismantled us slowly and surely and that then contributes to many factors that leads to ill health*' (C6Y1). The co-researchers particularly emphasised how the effects of historical trauma were affecting the health of today's generation, and how intergenerational trauma was influencing lifestyle decisions that affected health outcomes:

> *We are living, us as the third generation, we are living through what happened to the first generation before us. We're just getting the tail end now hence diabetes and everything is coming through […] not only physical sickness but the mental sickness. The mental depression, those things are hindering our choices. They are the things; they are the actual barriers that stop us from making clear choices because you've got the trauma sitting in there.* (C1Y1)

The co-researchers stated that physical illnesses. such as diabetes and dementia, and mental illnesses were passed through the generational lines, often resulting in people turning to substance abuse to alleviate the pain and negative emotions:

> *You've got what happened to your parents sitting in there, what happened when you were a child sitting in there, and those are the quiet things that you can throw a billion dollars at it, but they'll turn around and go back to what they feel helps—substance abuse. They always turn back to those things hence the fruit of that is diabetes, early onset dementia, all these things start to come in the way.* (C1Y1)

Smoking tobacco and marijuana, and excessive drinking were given as examples of the substance abuse, which was a symptom of the breakdown (wongai tree rot) that had taken hold in the communities, '*just coming back and seeing the community like this, they're drinking* […] *and smoking under 15, 16. How will they look – how are they going to look like when they're 40?*' (C1Y1).

The impacts of drinking were felt more broadly than just on an individual level, drinking in the younger generation led to a loss of community values and disrespect towards the older generation, as this older co-researcher described, '*Sometimes young fellas didn't respect us, they can do what they want to do. Drinking too much*' (C5Y1). Excessive drinking also had an impact on the wider community structure. Drinking at community events deterred many people from attending, and as a consequence, the community structure was less effective. However, since '*we have stopped drinking now, everyone comes now and then the dialogue can happen now, where the leadership now speak.*' (C3Y1).

The increased prevalence of chronic disease and other health issues resulting from lifestyle changes following colonisation was described:

> *From an Aboriginal side, 65 is like end of life, […]. That's because of all the introductions of other things that have got us to where we are now with chronic disease.* (C1Y1)

The impacts of colonisation had a wider significance for the co-researchers than simply on their health. Social breakdown had led to the loss of the traditional hierarchical structure within families and communities, and with that, a loss of the teaching of cultural practices:

> *Torres Strait [Islanders] are cultural, traditional people, it's only that we are going away from our traditional cultural lifestyle that we have ended up in this predicament, but when we were in that system of governance that we had in the community, the community was well, everybody was active, contributing. [Name] said to me, 'Bala, one thing I notice, the old people back in the days, they had little, but they achieved much. Today we have much, and we achieve little.'* (C3Y1)

The co-researchers described how each community had their own cultural hierarchy. Within this structure, each individual or family had their own roles and responsibilities, and everyone knew what those roles were, '*that family did the hunting, that family did the cooking' but 'the structure is broken now*.' (C6Y1). Other co-researchers felt that the breakdown of community structure had meant that the younger generation had lost comprehension of all the deeper knowledge of their ancestry and culture, '*We can even see our young people confused within our culture because there's not much culture within our way of practice*' (C6Y1).

The changing roles within a family, specifically the change in the traditional role that men played and how that has affected the wider community, was highlighted by some co-researchers. Men had struggled to find their role and meaning as a result:

> *Fathers have taken a step back now and they're at home looking after the kids. I can see a lot of fathers doing that. Now when young men grow up, all of a sudden, they're growing in a different environment now. There's not a father standing up and leading the way. By leading the way I'm not saying be the boss, by leading the way I'm saying, be the hunter, the gatherer. Be the person that's taking notice of season changes and stuff like that.* (C1Y1)

As well as damage to the trunk—instigating the decay of the Torres Strait identity—cyclones also rip leaves from the tree. However, instead of landing at the base of the tree through natural shedding, they are blown away in the cyclonic winds, preventing them from being reabsorbed into the soil where the tree is growing. This is symbolic of the lack of leadership within the community caused by the breakdown in traditional structures. Specifically, the lack of male leadership and male role models had an impact on the way in which younger males understood their role and expectations. Consequently, that left some of the male co-researchers without a clear direction regarding their role within family and community:

> *All of my fathers have gone. They're all our compasses, for us young men […] It's hard trying to do something where you haven't been brought up to learn or see it portrayed in front of you, it's hard. That's what Torres Strait is lacking, all of us, every island, is leadership.* (C1Y1)

This loss of male leadership was experienced as detrimental. A lack of strong male leadership was seen an indicator of the decline in respect and good discipline within the younger generation:

> *Having strong men in the community […] because we've just about lost all men and look where our community is. When they were alive you could never have this disrespect that we're talking about. Never have that. We were too afraid to do that. You always had 100 per cent attendance at school because the chairman would come around to your place every day and all these godfathers […]. That's what's missing.* (C1Y1)

More generally, the co-researchers lamented the general decline in the number of active leaders within their communities who were able to pursue initiatives. Further, the communities did not always come out to support those who did volunteer to take on leadership role and take up challenges:

> *There's only a few people that drives things in the community. You won't get everybody turn up and say, I want to do this, I want to do that. You're only going to get a handful […] there's only a few drivers that drive things here and only a few people that support it.* (C1Y1)

Consequently, specific activities or services had fallen by the wayside owing to the absence of someone to volunteer to lead the programs, including things such as community gardens and community aged care services, '*The word was "used to have"* [aged care services] *you know, we're always talking in past tense because, now no one's taken up the role to do something*' (C2Y2).

Like the loss of the leaves, cyclones cause fruit to drop prematurely, which then shrivel and die. This is symbolic of the loss of Elders who should have been passing on their knowledge, culture and traditions, '*There are no older men, there are only younger boys now… There are only the younger ones, but they don't know*' (C5Y1).

6.7.2 Inequitable access to services as a damaging event

Damage to the trunk of the wongai tree interrupts the flow of nutrients in the sap, so maintaining the health of the tree is a challenge. The co-researchers from all communities described how access to aged care and healthcare services, as well as social, community and recreational programs was, at times, problematic, making ageing well a challenge.

For the co-researchers, being able to access appropriate aged care services, and therefore being able to grow old on their island community, was very important to them, and for most residents, the desire to die on the island was significant. Remaining on their Island Home as they aged allowed them to remain connected to family, friends, community and their land, '*I'd rather see* [a RACF on island] *so when we get old, there's a place for us so we can stay connected*' (C3Y1). However, because the only residential aged care facility (RACF) in the Torres Strait and NPA was located on Thursday Island, many co-researchers feared that they would have to leave their community if they needed to access residential care. For this reason, the co-researchers wanted aged care services closer to

home with a RACF locally, '*we want an aged care facility here on* [community name] *for our people, those that are getting ill and older, so they are not getting sent away*' (C6Y1). The wider community also wanted the older residents to stay in their community because they saw the value in having that person there to be able to practice cultural traditions and pass on knowledge. Sending an older person away to access aged care severed the relationship between community members, '*We got one old man at* [RACF on TI] *now, but the Elders want him to come back home. He says he wants to come back home*' (C4Y2).

Many older co-researchers described the importance of having community aged care supports in place. A community day respite centre was located in only one of the participating communities, and another two communities could access another respite centre on Waiben. The co-researchers from these communities shared the benefits of the older generations being able to get together to socialise, participate in physical and mentally stimulating activities, and practice cultural activities within the centre, '*Coming here* [day respite], *getting your brain active, nice to share stories with all of my friends, having laughs*' (C5Y1). One participating community had an active Commonwealth Home Support Program, which provided practical help within the home such as cleaning, shopping assistance and meal provision, as well as providing opportunities for social outings. For those co-researchers in that community, they valued the services that they could access, '[We get] *A lot of help from HACC, they provide our meals and gave us everything that we want and take us to fish, and we do a lot of activities down the beach with them'* (C5Y1). However, not all communities had access to aged care services, or had inadequate services for the number of older residents, '*That* [HACC] *service is not benefitting the need, the amount of elders here compared to the amount of HACC workers here, there is an imbalance, we need more worker*s' (C3Y1). For some of these communities, where there was a lack of aged care services, the sense of inequitable access across the region elicited feelings of anger and disillusionment, '*what's wrong with* [community name] *Island? what have we done to deserve to be put on the back shelf?* (C2Y2).

Equitable access to healthcare services was also seen as a challenge to ageing well for many co-researchers across all participating communities. For those on the more remote outer islands or not situated on the main hub of Waiben, there were feelings of inequitable

access to health care, both in comparison with those living on Waiben and with those on the mainland:

> *We're five minutes away from TI and that's the big excuse the government use is that we're only five minutes across - were only a ferry away or a dinghy ride away. But in that five minutes is life and death and I think it's really unfair that [community] is disadvantaged by the lack of services. We're just sometimes an afterthought.* (C1Y1)

The seriousness and implications of this inequity made them feel devalued by both the health service and by the government, and that their lives did not matter. Travelling to access health care, whether it was over to Waiben or down to Cairns (the nearest city on the mainland), added further distress, '*If we are really sick, they send the Flying Doctors to come and take us down to Cairn*s' (C5Y1). This requirement to travel off their community was often costly and time-consuming, '*It's a very tiring day when you spend the whole day on TI,* [Thursday Island] *and you come back late and tired, especially when you have a doctor's appointment—you have to stay TI* [Thursday Island]' (C1Y4). The necessity to travel off community to access care often resulted in the co-researchers either not accessing care or receiving sub-optimal treatment, '*Most of the people don't want to go to their appointment, they scared of planes, and the weather is changing, raining all the time, they can't go. Even go for screening, for breast screening, some go, some stay*' (C4Y2).

The physical limitations associated with ageing made access to services even more challenging. For many, there were sentiments that the older people within their communities were missing out on appropriate care because of a lack of government commitment to the provision of adequate services, '*It's a concern for our elders that we don't have the proper benefits of health care that people do in mainstream, there's a big margin between mainstream and* [island] *communities*' (C3Y1). Specific areas of concern were having a regular GP service, and access to mental health support, dental services and specialist clinics. There was an acknowledgement that not all services can be delivered locally; however, in the cases where services have been delivered in the communities previously, the co-researchers questioned why they could not continue, '*I remember they used to be here all the time, dentists* […] *for kids all the way through to older. I remember when I was at primary school, they* [dentists] *used to do it* [visit]'

(C3Y1). In those cases where previously delivered services had ceased, there was a sense of moving backwards, not forwards.

Limited access to social and community services, as well as access to recreational programs, was also identified as a challenge to ageing well for many of the co-researchers. Owing to a lack of childcare services on one of the communities, older adults found themselves being the primary carers for grandchildren, which then, in turn, affected their ability to seek their own health care:

> *The majority of the elderly now are babysitting their grannies because there is no childcare services and after school care so that has disappeared as well… they find it very hard to find someone to mind the little ones, if they've got to [go over to TI to access healthcare].* (C2Y2)

Having access to recreational opportunities, especially for exercise, was seen as inequitable across the region for some, as this co-researcher who, when comparing facilities available within her community with those available on Thursday Island, asked rhetorically, '*Do we get the services that are on TI* [Thursday Island]*? They've got how many exercise equipment around the island there, free. How many have they got here? And you know you don't pay $75*' (C2Y2). Those co-researchers in more remote communities reported not being able to access any recreational programs, '*There's nothing* [recreational] *for this community*' (C2Y2). Other barriers such as venue and transport made it more difficult for communities to participate in competitions and programs:

> *It would be nice to have like regular ferry services at night, so [community] Island can participate in activities over at TI [Thursday Island]. You've got netball, that happens over at TI [Thursday Island], you've got basketball that happens over at TI [Thursday Island], then you got the touch carnivals but there's no ferry service. Or we have to fork out for the costings to go over and then not only that, if we were to form a basketball group, like there's been a basketball group with the girls that goes over and participate, we're finding our own vessels to take the kids over and that's a risk just going over there, to come back and play, at night.* (C2Y2)

However, in the participating communities where there were HLOs, there seemed to be more engagement in doing exercise across the age groups, which positively influenced activity behaviours, '*We have the HLO. He has activities at night for the kids and also*

for the elders too, men's night and women's night. He is the one that does activities in the community' (C4Y1).

6.7.3 Modern day challenges as a damaging event

Cyclones also damage roots, representing the weakening of the connections and support between families and communities. The co-researchers described how the structure of modern day society meant that family members often had different priorities and responsibilities. For some, this meant having to leave the community for work and education, consequently not being available to provide support to the older person, as this older co-researcher stated, '*At home I am by myself as the grandchildren are away working*' (C5Y1). In addition, even when family were around, modern day influences were distracting family from coming together and providing that support, '*It is not like it was before. Everybody wants to do what they want, and you are here by yourself*' (C5Y1). Extended family support was also required for the carers of older adults, so the responsibilities associated with caring for an older person could be shared. However, for some co-researchers, extended family were not always prepared to assist, '*I'm struggling myself* [providing care]*, I don't have the family support that I need to help me*' (C3Y1).

This breakdown in the traditional family structure had implications for ageing well in terms of social isolation. Social isolation affected different cohorts within the community. However, for the older co-researchers, the lack of family presence left them feeling under-stimulated, '*I am left at home by myself. Just sitting in my bedroom looking at four walls*' (C5Y1). This elicited feelings of low self-worth and a reduced QoL when unable to do the activities they were able to do in their younger years, '*When you get older everything changes*' (C5Y1).

The co-researchers acknowledged that changes within a modern day society came with challenges. The introduction of technology, including phones and TVs, as well as social media, was seen as negatively influencing the traditional practices within the home, affecting traditional lifestyles:

> *Preparing to age well, one of the biggest things that current social media influence with the younger generation has taken a lot of our cultural practices and values away and how do we reinstate that? Because half of the reason that contributes to yarning*

with parents or grandparents or whatnot is the fact that the practices are taken away. (C6Y1)

This influence was observed to be greatest on the younger generations. Older co-researchers felt that technology was dividing the generations, and that communication between the two generations was diminishing:

We have lost the ability to communicate effectively. The children with mobile phones. During the night you see the light on and their faces glow. During the daytime all you see is the top of their head. When you talk, it's like you are not there. When they send messages to each other, I try to figure out if it is English, what is it? it's a foreign language to me. That's how disconnected we are. In generation terms how the younger ones disconnect from the older ones. People don't just sit and talk anymore. That's a very important factor in life, you need to be able to communicate with each other. (C6Y1)

The cultural practice of sitting and yarning with parents and grandparents, and learning from them had been eroded, since the younger generation was too distracted by their technology, '*They don't sit down today, today they are too busy doing their own thing or playing some electronic game*' (C6Y1).

Those outside influences were seen to be influencing how the younger generation respected and treated older adults. The older generations felt that they were losing respect and being devalued for the knowledge they held and the roles they played:

Technologies have a big influence. Five, 6, 7-year-old children are not going to listen to you, you have to call them ten times before they listen, because they have a mobile or some electronic toy of some sort. (C6Y1)

The co-researchers reflected on the days before TV and other technology, when children would be outdoors and learning traditional practices from the Elders. Today, the use technology means that those practices are not happening as frequently:

When we didn't have a television, everybody would be out on the reef or the young boys would be making spears, the Elders would be showing the young boys how to make spears, but today when we have television and a lot of social media, the dynamics of the home have changed now. (C3Y1)

Older co-researchers felt that this was a sign that the younger generation was not prioritising learning about their culture, '*Now there is knowledge around the technology these days. No bush hunting and fishing. It's their second option. It's about life today, about technology*' (C6Y1). Further, there was a fear that this was likely to worsen as advances in technology progressed, '*there is media influence and technology influence that is a divide between generations, and it is going to get worse*' (C6Y1).

More generally, the introduction of technology was seen to be a deterrent to physical activity. The co-researchers observed that more people were staying at home and not interacting within the community, and were less inclined to be active and complete household chores when they had access to technology, '*It* [technology] *makes you sit at one place on the phone instead of exercising and doing stuff around the house…. technology slows you down, makes you not exercise*' (C4Y1).

6.7.4 Social determinants of health as a damaging event

Other aspects of life that were seen as a challenge to survival, like the survival of the damaged wongai tree whose sap has no easy passage, can be understood as social determinants of health. The co-researchers described the challenges to survival from the cost of living, lack of transport, housing issues and environmental factors.

The cost of living was identified as a challenge to ageing well from co-researchers from all the participating communities. Fresh food was described as exorbitant, with prices continuing to rise, affecting decisions to purchase more healthier food, '*The prices of food, especially lettuce, it's like $11.00 for one lettuce. So, if you're talking about eating healthy, that's impossible because buying fast food is cheaper than healthy food*' (C2Y2). Other high costs included hiring venues for things such as exercise and social community events. Being able to access places, such as a gym, to exercise was prohibitive for many, and was not seen as a priority among the competing demands on salaries, '*That gym, I think it's expensive. I won't pay for the gym service* […] *the price that you pay to use the gym for a week. That's the price of me getting to work and back again*' (C2Y2). The co-researchers described how travel within the Torres Strait, a necessity in the region, was expensive, be that airfares on planes or fuel for boats. The high cost of living was causing families to struggle financially, '*the high cost of living, it causes a lot of stress and puts a strain on families*' (C6Y1), compounded by the additional pressure on wage earners to

share money around within their extended families, '*You look at inflation now today. When you get your pay, everybody will ring you, 'I need this'. Everybody knows your payday*' (C6Y1).

The co-researchers also highlighted transport issues as a challenge to ageing well. A lack of public transport was a widespread problem that had an impact on all age groups within the community. For children, this affected their ability to get to school, and for the older generation often experiencing mobility issues, the lack of transport limited their ability to access the community, '*We need a bus, so we can go to the shops, transport for elders especially for those with walking difficulties*' (C2Y1). Specific to the Torres Strait, ferry access to the main hub, Waiben, was problematic for those older co-researchers living on neighbouring islands. This was an issue especially when the sea was rough, resulting in limited access to services such as health:

> *I can't go on the ferry, if I lost my balance […] I just can't walk on […] and if I need to go to TI, [Thursday Island] my son has to take the day off from work and go over in my car on [the car ferry] and that costs money. And that's why I only go once in a while.* (C2Y2)

Ageing well encompassed more than health for the co-researchers. They described how issues relating to housing affected their ability to age well. This included issues around overcrowding within homes:

> *We have kids and our grandkids, and our great grandkids in the one house. It's hard to get housing for us. To support us. If you are down on the mainland you can say to your kids, 'off you go you can go and get your own life, look for your own place or something instead of staying with me', but here we can't do that. Where are they going to go? There is no accommodation for them.* (C4Y2)

For some co-researchers, the only alternative was to leave their communities, which was not considered an acceptable option, '*The housing overcrowded as well. For me and my family we have 6 in a 2-bedroom house, and it is not good* […]. *The only way is to relocate somewhere. But I don't want to leave the island*' (C4Y1). The co-researchers also identified health issues that arose from overcrowding, '*malnutrition, skin outbreaks, ARFs,* [Acute Rheumatic Fever] *and all that because of the overcrowding*' (C6Y1), and mental health issues:

> *The structure of the house […] if they get a partner, and they have young children, all of a sudden […] a six bedroom [house] is needed now [not the existing] four bedroom, so the stress now that is captured within that household, ultimately like a volcano, it will burst and have an effect on the mental wellbeing of parents, brother and sister, mother.* (C3Y1)

Home maintenance was also an issue for the co-researchers, where lengthy wait times for home repairs were commonplace:

> *[There is a] problem with maintenance, with builders and with electricity. They won't just come to one house; they wait till there is a problem with three or four houses. Whereas down south you just pick up a phone and they come straight away […]. My hot water system went out last October and I am still waiting for it, six months later.* (C4Y1)

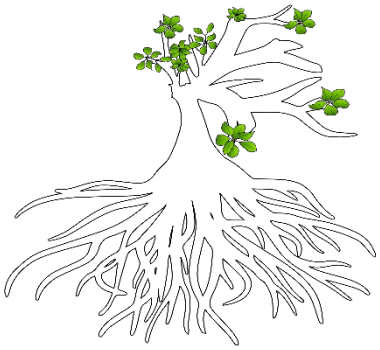
As well as issues concerning regular home maintenance, the co-researchers also highlighted the difficulty in accessing timely modifications to assist the older generation to remain living at home, '*It takes a while,* [for home modifications] *there might be a 12-month waiting list for some modifications to happen*' (C3Y1).

Environmental factors also affected some co-researchers' decisions to address lifestyle behaviours that could influence ageing. Many of the communities described the barriers to growing garden food. Some of the reasons included crops being eaten by wild horses, '*we had horses everywhere, they were coming in and spoiled those things you planted, and they ate all the veggies. It was terrible*' (C5Y1); mice, '*The only thing we plant now, is we get kai kai from the cassava, not sweet potato, not corn, pumpkin yes, but the mice get it all*' (C4Y2); and bush turkeys, '*We can't plant the veggies. Mainly only the cassava and sweet potato because the bush turkey dig it up, that's not good*' (C5Y1). The co-researchers also highlighted environmental safety concerns as barriers to being able to exercise outdoors. These included the increasing daytime temperatures, attributed to global warming, '*the environmental factors as well, like global warming. I always say let's get out, get the kids outside, but it is hot outside. I know, I want to be in the aircon too*' (C6Y1); a lack of designated footpaths or running paths to enable safe exercise away from road traffic, '*We miss out on all the running activities because there's no safe place to run, I used to* [run to] *the airport, but the cars just drive too fast and there's no space on the road to jog, so it's just not safe*' (C2Y2); and wild dogs, which were deemed

dangerous, '*No* [walking groups*] because when you walk down the street you are chased by dogs*' (C2Y2).

The damage sustained to a wongai tree following a cyclone is widespread. The winds can damage roots, trunks, branches, leaves and fruit. Similarly, the effects of colonisation, the introduction of social media and technology, limited access to services across the region, and impacts from the wider social determinants of health, along with environmental issues, had thrown up challenges to the co-researchers that influenced their ability to age well.

6.8 Demonstrating strong sustained life: Regrowth



Damage may have occurred from devasting winds; however, the roots of the tree have not died, there is still life in the tree and hope for the future as new growth sprouts forth. This is symbolic of the sustained strength of the Torres Strait identity and way of life, attributed by the co-researchers to resilience, positive attitudes, personal motivation and taking responsibility for one's own health. This was also facilitated by activities to strengthen self-care, such as remaining occupied, doing the things that made them happy and practising their faith.

6.8.1 Personal attributes for regrowth

The co-researchers reflected on the Torres Strait Islander Peoples being historically resilient:

> *We should just stand up and say, OK, that's enough, as a race, as a people. Because that's not our style. We're not that sort of people, we're a resilient people, we stand up and we do things for ourselves. Maybe we need to go back there.* (C1Y1)

The co-researchers described having to overcome adversities from the past and take a positive approach to moving forward:

> *How about we stop, don't rely, turn around, and look at our own life. Plan our own selves. Be resilient in our own self because we've got it in ourselves. We have that [resilience] gene, it's sitting in us, and it's been silenced by laziness, by blaming other things, by sitting and saying, 'oh it's because of them'. Yeah, well they haven't got a gun to your head right now.* (C1Y1)

For many co-researchers, this meant taking responsibility for their own decisions and the choices that affected their health. There was a realisation that a change in lifestyle was required for a long and healthy life, '*We have to be sensible and think about what sort of things that we put into our bodies*' (C2Y2), and to be able to continue doing the things they enjoyed, such as being with family, '*If I want to be able to play with my grandchildren, I've got to look after me*' (C1Y1).

It was also recognised that colonisation had introduced unhealthy ways of life and unhealthy foods, leading to rises in chronic diseases, and that, unfortunately, these chronic diseases, such as diabetes, were being passed on through the generations. However, the co-researchers acknowledged that there was a need to change their mindset, to stop blaming the past less, and to take individual and collective decisions that will improve health going forward:

> *We have to understand issues and we have to make our people see what happens. We didn't grow sugar, we didn't – that wasn't in our diet. It was introduced. Yes, we can jump up and down and say, the boss brought it rah, rah, rah, and we can still just keep killing ourselves. Or we can take it on the chin and say, OK, that's not a part of our life. Let's turn around and try to stop this […] OK, a lot of stuff was introduced, we blame it on colonisation, but it comes back to self again.* (C1Y1)

By making healthy lifestyle choices, the co-researchers understood that they would be more likely to be healthier and live longer:

> *When I talk about healthy age, we have to change the way we think […] so, you've got to look after yourself and don't be sick. If we look after ourselves, we're going to be healthy. If we're going to drink until we're 50 we're not going to be healthy. If we're*

> *going to take drugs, we're not going to be healthy. I've been through all this. I've been through that life. I've seen people die in front of me. So, I have to make choices.* (C1Y1)

For some co-researchers, healthy ageing was not necessarily about having supermarkets or health centres, but came down to an individual's agency over the decisions they made to keep themselves fit and healthy, '*How you treat yourself is how that generation is going to be whether you've got 18 medical centres and 50 IBISes* [supermarkets] *on the ground'* (C1Y1). The co-researchers reflected that, as well as individuals making changes, the community as a whole could drive change, setting the example to younger generations, '*We have to set the example for our people, about how we look after ourselves*' (C2Y2), because if changes were not being made, the survival of the next generation was in jeopardy. The cycle of ill health through the generations needed to be broken:

> *Healthy ageing for me, hereditary things that's been passed down through a bad line now. Hence why we are the most important people for the next one. We have to get our crap together because we are passing things down through our bloodline now, and this information must be shone into our minds, into people on the ground. To see, 'look you carry a generation in you' […] you've just messed up their future from the simple decisions you make in your life […] I mean if they are the choices we have today, there will be no life further than us.* (C1Y1)

The co-researchers described how these changes in lifestyle behaviours required personal motivation to change, and this was seen as a contributor to ageing well. For many, this meant being motivated to give back to the community and providing leadership, '*Under that umbrella* [work scheme] *we were able to have those old people now actually working with us. It was motivation. They were motivated to do the things that we needed as a community would need*' (C1Y1). Further, personal motivation encapsulated the drive to stay active, fit and healthy, and in doing so, remain independent:

> *She [older resident] keeps active and keeps herself going and you know, and I can see a couple of other [older] ladies that do the same thing. They're keeping themselves […] even though they might be restricted in lots of things, but in other ways they're keeping themselves going, motivated, motivated.* (C2Y2)

For many older co-researchers, that meant overcoming health issues and maintaining a positive attitude:

> *[Older community resident] says, 'I'm not getting old, I'm not going to be old'. Even though a lot of the family say, 'you can't live on your own, you can't do this' but she says, 'yes I can'. Just like a few of us, others as well, say we can look after ourselves and all that. And that's the positive attitude that you have, you have that positive attitude, you move on, and you get there and just keep yourself motivated, keep yourself going and look after yourself for as long as you can.* (C2Y2)

On the whole, the co-researchers had a positive attitude to ageing well, and staying active and independent. For many, a positive attitude was expressed as looking forward to growing old, '*I am looking forward to getting older. I'm always happy*' (C5Y1). Passing on this attitude and setting a good example to the next generation was also important. A benefit of having this positive attitude was to be able to continue to stay well for their families, '*I take a pleasure in trying to do the right thing. I try my best. That's all I can do, for my kids, just try my best*' (C1Y1).

6.8.2 Doing things to make you happy for regrowth

The co-researchers also described activities that provided inner strength through doing the things that made them happy, which ultimately supported ageing well. The co-researchers listed some of the activities that improved their wellbeing, mitigated feelings of social isolation and maintained their self-esteem. These included interacting with nature, '*I think ageing well for me is being at the seaside and doing my own things. Doing the things that I used to do with my parents, go bush, looking for bush food, and all them things*' (C6Y1), and staying connected to family, '*With your grandkids, nephews and nieces, family members, best friends, and prayer* [makes me happy]' (C5Y1), and friends:

> *If you are by yourself every day and not seeing your friends and just stay home. You need to do something for yourself. Out from the house, walk about, sitting outside the wharf or whatever. You pick up someone, you meet them, and you talk to them. That's makes you happy. If you are not doing those kinds of things, then you worry about things.* (C5Y1)

Ageing was also seen as an opportunity to now do the things in life that brought enjoyment, which had been ignored as a consequence of leading busy lives, '*I think that I'm at that stage where I'm ready to go to that next chapter of maybe slowing down a little bit more and doing things that I want to do that I've never had the chance to do*' (C1Y1).

6.8.3 Practicing faith for regrowth

Practicing faith was singled out by the co-researchers as a significant factor contributing to staying strong. Faith for these co-researchers was a foundation for their lives:

> *It [faith] is the first thing in the morning when we wake up. We don't even wash our face first, we pray first, then stand up, wash our face, and eat our breakfast. Before you walk out the door you have to pray. We grew up with praying, our old people tell us like doing that is better for you than playing around and doing silly things. We try to teach our younger ones about church about our God. Without our God you are nothing.* (C4Y2)

Faith provided a sense of purpose in life that contributed to ageing well. It provided pleasure and brought joy into their daily lives, '*I go to church all the time. Every Sunday I go to church. All the other Christian people are there, and we sing, it's nice*' (C5Y1). Being part of a church provided an opportunity to interact and socialise with other community members, bringing the community together, *'Most of the older people like going to church and spend the time with the other Christian people. Its lovely. Mixing with the older people*' (C5Y1). Practicing faith also provided a shared interest as a means to connect with friends and work colleagues, as well as the opportunity to set good examples, and pass on values and knowledge to the younger generation, as this older co-researcher described:

> *I like to share Bible scriptures during smoko. I notice that some younger men take interest, listen and then come back to me with other questions. And I feel supported as they are asking me questions and want to learn more.* (C2Y1)

6.8.4 Keeping occupied for regrowth

Generally, the co-researchers highlighted that keeping themselves occupied was important for healthy ageing, whether this was through staying connected with friends and community members, participating in community events, partaking in cultural practices or being active doing household chores, '*If you sit you get lazy and you're going down*' (C5Y1). The co-researchers discussed how keeping occupied had a physical focus, either through dedicated exercise, or simply through incidental exercise as part of everyday household activities, '*I keep strong, working in the house, doing dishes and help my daughter*' (C5Y1). Keeping occupied was also seen to assist with maintaining

independence for the older co-researchers, '*I'm 79, I will be 80 next year, so I still do my things, do my washing, my cleaning and things like that, I never rely on my daughters, or my neighbours I do my things myself*' (C1Y2). Keeping occupied was associated with personal motivation and a positive attitude towards ageing, '*I am 65 years old. But I still want to work because I want to stay fit and healthy*' (C2Y1).

Similarly to the strength of the wongai tree drawing on its nourishment through its roots and leaves, the co-researchers drew on their inner strength to enable them to live long and healthy lives. Continued growth for the co-researchers was attributed to their resilience, motivation, attitudes, agency and having the strength to remain positive and content in the face of adversity.

6.9 Chapter summary

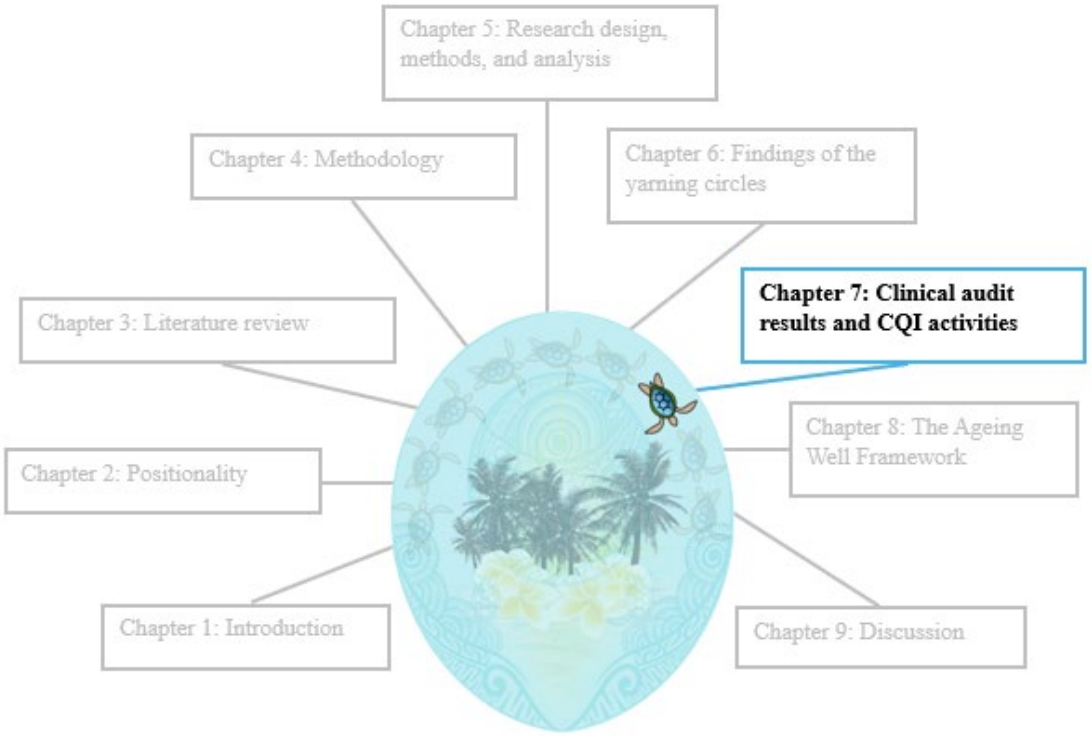
In this chapter, I have described what ageing well meant for Aboriginal and Torres Strait Islander Peoples living in the Torres Strait using the metaphor of a wongai tree. The findings demonstrate that ageing well is more complex than simply achieving good physical health or '*healthy*' ageing. For the co-researchers in this study, ageing well encompassed a broader, more holistic view that incorporated concepts not included in Western paradigms of healthy ageing models. Specifically, the importance of connections and relationships to family, friends, community and Island Home resonated with the co-researchers as a marker of ageing well. Additional factors that kept people strong and ultimately led to them being able to age well included maintaining a strong Torres Strait identity and way of life through practicing culture and traditions, such as the passing on of knowledge and wisdom; balancing physical, mental, cultural and spiritual domains; and having strong community leadership and decent role models.

The challenges to ageing well were found to be significant for Aboriginal and Torres Strait Islander Peoples living in the Torres Strait. The impacts of colonisation are widespread, including ill health, substance abuse and the destruction of traditional lifestyles and practices, which have interrupted Torres Strait culture. This has been exacerbated by ongoing inequity around the social determinants of health and the influences of modern day societal living, such as the increasing use of social media and phones. However, for the co-researchers, their inner strength, demonstrated by their

resilience, attitudes, personal attributes and outlook on ageing, counterbalances the difficulties faced, ensuring that ageing well, for many, is achievable.

In the next chapter, I present the results of the clinical audits—Cycle Two of the PAR cycles. I also outline the CQI activities that were conducted as part of PAR Cycle Three.

Chapter 7: Clinical audit results and CQI activities



7.1 Chapter introduction

In this chapter, I present the results from the clinical audits (PAR Cycle Two) and describe the CQI activities (PAR Cycle Three) that were implemented at the five PHCCs in response to these audits. These results address the research question: How can Aboriginal and Torres Strait Islanders Peoples living in the Torres Strait and Northern Peninsula Area be supported to age well?

Clinical audits using the HAAT were completed (N = 1,128) as per the domains outlined in Chapter 4 (Methods). Data for the five PHCCs were analysed separately to provide specific feedback to each PHCC and used to identify priorities. An example of this feedback is provided in Appendix K. In some instances, aggregated data are presented to provide a general overview of the collective audit findings from these five services. As well as auditing specific domains, it was important to assess the health service response (HSR) in cases where an issue was identified that required the health service to take action. Data presented in the following tables represent the numbers and percentages of those for whom there was documented evidence, as opposed to the total sample.

7.2 Participant demographics

The age, sex, Indigenous status and marital status of the clients from whom records were audited (N = 1,128) are presented in Table 4. The mean age of the whole sample was 42.24 years of age (*SD* = 16.3, range 18–95 years), with 25.5% of the sample (n = 288) being over 55 years of age. This cut-off (55 years and over) was applied to the results, where relevant, since the adult health checks (AHC) are conducted with three age groups: Aboriginal and Torres Strait Islander children aged less than 15 years (not applicable to this study), Aboriginal and Torres Strait Islander people aged 15 years to 54 years, and Aboriginal and Torres Strait Islander people aged 55 years and over. I also wanted to consider chronic disease and its management in midlife (55 years and over) because these are factors for increased risk of dementia (Russell et al., 2021).

Of the 18.6% of the sample (n = 210) who did not identify as Aboriginal and/or Torres Strait Islander, the ethnicities recorded included Papua New Guinean, Māori and Pacific Islanders. Because these population groups potentially share similar comorbidities and problems associated with ageing, these data were aggregated into the overall data. Of the clients recorded as ‘neither Aboriginal or Torres Strait Islander’ (n = 210), only 3.33% (n = 7) were recorded as Caucasian, and 30.5% (n = 64) as non-Aboriginal or Torres Strait Islander-Australian.

Table 4: Characteristics of Audit Participants

	Kirriri (n = 158) n (%)	Ngurupai (n = 391) n (%)	Wug (n = 160) n (%)	Warraber (n = 119) n (%)	Bamaga (n = 300) n (%)	Total (N = 1,128) n (%)
Age						
Mean (*SD*)	41.28 (17.83)	40.29 (15.74)	48.19 (17.02)	42.01 (14.67)	42.22 (15.75)	42.24 (16.3)
Range	18–95	18–82	19–83	19–92	19–81	18–95
<55 years	124 (78.5)	303 (77.5)	96 (60)	96 (80.7)	221 (73.5)	840 (74.5)
≥55 years	34 (21.5)	88 (22.5)	64 (40)	23 (19.3)	79 (26.3)	288 (25.5)
Sex						
Male	76 (48.1)	200 (51.2)	74 (46.2)	59 (49.6)	128 (42.7)	537 (47.6)
Female	82 (51.9)	191 (48.8)	86 (53.8)	60 (50.4)	172 (57.3)	591 (52.4)
Indigenous status						
Torres Strait Islander	136 (86.1)	182 (46.5)	137 (85.6)	117 (98.3)	210 (70)	782 (69.3)
Aboriginal	0 (0)	10 (2.6)	6 (3.8)	0 (0)	5 (1.7)	21 (1.9)
Both*	15 (9.5)	43 (11)	7 (4.4)	1 (0.8)	44 (14.7)	110 (9.8)
Neither	7 (4.4)	153 (39.1)	10 (6.3)	1 (0.8)	39 (13)	210 (18.6)
Not specified **	0 (0)	3 (0.8)	0 (0)	0 (0)	2 (0.7)	5 (0.4)
Marital status						
Single	15 (9.5)	45 (11.5)	25 (15.6)	16 (13.4)	54 (18)	155 (13.7)
Married	20 (12.7)	39 (10)	37 (23.1)	18 (15.1)	41 (13.7)	155 (13.7)
De facto	26 (16.5)	48 (12.3)	15 (9.4)	13 (10.9)	51 (17)	153 (13.6)
Widowed	6 (3.8)	2 (0.5)	5 (3.1&)	4 (3.4)	11 (3.7)	28 (2.5)
Divorced	4 (2.5)	3 (0.8)	2 (1.3)	0 (0)	4 (1.3)	13 (1.25)
Not specified**	87 (55.1)	254 (65)	76 (47.5)	68 (57.1)	139 (46.3)	624 (55.3)

*= Both Aboriginal and Torres Strait Islander, **= No record in the patient chart.

7.3 The Adult Health Check

The AHC is a means of delivering preventive care, incentivised by the MBS item 715 (Health Assessment for Aboriginal and Torres Strait Islander People), delivered in a PHC setting (Baillie et al., 2019). These Indigenous-specific health assessments provide the opportunity for screening, subsequent care plan development and the delivery of evidence-based care to support ageing well. Evidence of completed AHCs was audited, and the results are presented in Table 5. A total of 227 AHCs were completed within the 12-month period. An additional 112 AHCs had been commenced by the GP or IHW, but were not fully completed, and are described as 'partial-completed'.

Table 5: Adult Health Checks

	Kirriri (n = 158) n (%)	**Ngurupai (n = 391) n (%)**	**Wug (n = 160) n (%)**	**Warraber (n = 119) n (%)**	**Bamaga (n = 300) n (%)**	**Total (N = 1,128) n (%)**
AHC completed						
<55 years	21 (16.9)	18 (5.9)	15 (15.6)	49 (51)	48 (21.7)	151 (18)
≥55 years	5 (14.7)	7 (8)	19 (29.7)	15 (65.2)	30 (38)	76 (26.4)
Partial AHC completed						
<55 years	5 (4)	17 (5.6)	9 (9.4)	21 (21.9)	21 (9.5)	73 (8.7)
≥55 years	1 (2.9)	16 (18.2)	7 (10.9)	5 (21.7)	10 (12.7)	39 (13.5)

7.4 Chronic disease management

Chronic disease diagnoses were audited and are presented in Table 6. Other conditions commonly associated with ageing are presented in Sections 7.6–7.7 of this chapter. Diagnoses were taken from one of the following: (1) the medical history section of Best Practice™, (2) the progress notes section of the GP clinical notes or (3) if stated as a diagnosis in the General Practitioner Management Plan (GPMP) or Team Care Arrangement (TCA) documentation. A diagnosis was not recorded as present if medication was prescribed for the condition, but no diagnosis was documented anywhere in the record, since medications can be prescribed for reasons other than their stated primary use. For example, if the client was on an HMG-CoA reductase inhibitor but no documentation of dyslipidaemia, hyperlipidaemia or hypercholesterolemia was recorded, they could not be presumed to have these conditions.

High rates of chronic disease, particularly in the over 55 years age group, were documented. As shown in Table 6, almost 70% of the over 55s (n = 198) had diabetes, 21.5% (n = 62) had coronary artery disease and 60% (n = 173) had hypertension.

Table 6: Documented Chronic Disease Diagnoses

Diagnosis	<55 years (n = 840) n (%)	≥55 years (n = 288) n (%)	Total (N = 1,128) n (%)
Diabetes	292 (34.8)	198 (68.8)	490 (43.4)
Coronary artery disease*	27(3.2)	62 (21.5)	89 (7.9)
Dyslipidaemia	127 (15.1)	157 (54.5)	284 (25.2
Stroke/TIA**	8 (1)	20 (6.9)	28 (2.5)
Chronic kidney disease	62 (7.4)	119 (41.3)	181 (16)
Hypertension	98 (11.7)	173 (60.1)	271 (24)
Atrial fibrillation	8 (1)	16 (5.6)	24 (2.1)
Rheumatic heart disease	47 (5.6)	10 (3.5)	57 (5.1)
Congestive heart failure	2 (0.2)	9 (3.1)	11 (1)

* Included documentation of either cardiovascular disease/ischemic heart disease/coronary artery disease/coronary heart disease.

** TIA = transient ischaemic attack.

The first six variables listed in Table 5 were combined to identify how common these chronic diseases were within the sample for those aged 55 and over. Only 13.5% had no chronic diseases documented. Over 53% had three or more chronic diseases, and 30 people (10%) had five or more of the chronic diseases listed.

7.4.1 Cardiovascular risk

Given the high rates of chronic disease in the sample, cardiovascular risk (CVR) assessments completed within the previous two years were audited (Table 7). Only 80 (7.1%) of the total sample, and 33 (11.5%) of those aged 55 and over had documented evidence of a CVR assessment within the previous two years.

It was also important, however, to look at the HSR to any CVR of greater than 10%. The Royal Australian College of General Practitioners (RACGP) guidelines recommend intensive intervention support for those with a score of ≥10 (National Aboriginal Community Controlled Health Organisation & The Royal Australian College of General Practitioners, 2018[4]). Of the 80 clients that had undertaken a CVR assessment, 1.7%

[4] The RACGP/NACCHO have updated those guidelines—the 4th edition (2024) is now available. However, the HAAT was completed, and HSR determined, based on the 3rd edition (2018).

(n = 19) had a recorded score of ≥10. A further nine (11.3%) were assessed but did not have a score documented. The HSR to high results included combinations of the GP prescribing medication (n = 4), advising on lifestyle behaviour modification (n = 9), or referring to allied health (AH; n = 2) or cardiologist (n = 1).

Table 7: Documented Cardiovascular Risk Assessment and HSR

	<55 years (n = 840) n (%)	**≥55 years (n = 288) n (%)**	**Total (N = 1,128) n (%)**
Record of CVR assessment	47 (5.6)	33 (11.5)	80 (7.1)
Score of ≥10	3 (15.8)	16 (84.2)	19 (1.7)
Documented HSR	3 (100)	9 (56.3)	12 (63.2)

7.4.2 Dementia risk factors

In 2017, the Lancet Commission published nine potentially modifiable risk factors for dementia. In 2020, these were updated to 12 risk factors, and then in 2024, these modifiable risk factors increased to 14, which are now considered globally as best practice evidence for addressing dementia risk (Livingston et al., 2024). The 14 risk factors are a lower level of education, hearing loss, hypertension, smoking, obesity, depression, physical inactivity, diabetes, excessive alcohol consumption, traumatic brain injury, air pollution, social isolation, vision loss and high cholesterol. Data collected in the HAAT included the following 11 risk factors from the 2024 updated list that could be analysed as specific factors: hearing loss, hypertension, smoking, depression, physical inactivity, obesity, diabetes, traumatic brain injury, excessive alcohol consumption, vision loss and high cholesterol. Data were not available to assess the other three factors—social isolation, air pollution and education levels. Findings from those clients with one or more of these modifiable risk factors for dementia are presented in Table 8.

Over 77% of the overall sample had at least one of the Lancet risk factors for dementia. Of these, 13% had four or more risk factors. These high rates are of clinical significance, given that these risk factors are potentially modifiable through lifestyle interventions across the lifespan. Since data were missing from smoking, alcohol and low physical activity records for some clients, some risk profiles may have been higher than presented.

Table 8: Lancet Modifiable Risk Factors for Dementia

No of risk factors	<55 years (n = 840) n (%)	≥55 years (n = 288) n (%)	Total (N = 1,128) n (%)
0	231 (27.5)	22 (7.6)	253 (22.4)
1	241 (28.7)	43 (43)	284 (25.2)
2	192 (22.9)	63 (21.9)	255 (22.6)
3	108 (12.9)	75 (26)	183 (16.2)
4	53 (6.3)	60 (20.8)	113 (10)
5	12 (1.4)	19 (6.6)	31 (2.7)
6	3 (0.4)	3 (1)	6 (0.5)
7	0 (0)	3 (1)	3 (0.3)

7.4.3 Smoking and alcohol consumption

Since smoking and excessive alcohol consumption are both risk factors for dementia and cardiovascular disease, smoking and alcohol consumption status were audited (Table 9). Smoking status was not documented for 11.4% (n = 129) of the total client sample, and alcohol consumption levels were not documented for 29.1% (n = 328) of the total client sample. The documented HSR to those identified as smokers, or consumers of excessive alcohol consumption, were also audited. Alcohol consumption that was documented as high risk, heavy, excessive, above the recommended guidelines, or scoring high on specific assessments such as the AUDIT-C (RACGP, 2024) were included as an indicator of high alcohol consumption. The HSR responses to the documented smokers (n = 414) included a combination of advice to quit (n = 150), referral to a smoking cessation program/online apps (n = 5) and medication prescription (n = 86). The HSR to the documented high alcohol consumption clients (n = 95) included a combination of advice to reduce intake (n = 51), referral to the local Alcohol, Tobacco and Other Drugs Service (ATODS) (n = 2) and medication prescription (n = 3).

Table 9: Smoking and Alcohol Consumption Status and HSR

Domain/HSR	N (%)	Not recorded
Current smoker	414 (36.7)	129 (11.4)
HSR	194 (46.9)	
High alcohol consumption	95 (8.4)	328 (29.1)
HSR	52 (54.7)	

7.4.4 Medication reviews

Although there is no consensus definition of polypharmacy within the field of gerontology, being prescribed five or more medications daily is considered the standard definition (Korinihona et al., 2025). Both polypharmacy and documented evidence of a medication review were audited (Table 10). The medication review was either a review by a pharmacist or specifically documented as a medication review/consideration of medications/changes to medications in the GP's clinical notes. A script renewal was not classified as a medication review. A medication review was deemed not applicable if the client was not on any medications.

Table 10: Polypharmacy and Medication Reviews

Domain	**<55 years (n=840) n (%)**	**≥55 years (n=288) n (%)**	**Total (N= 1,128) n (%)**
Polypharmacy	76 (9.0)	156 (54.0)	232 (20.6)
Medication review	190 (22.6)	158 (54.9)	348 (30.9)
N/A for medication review	239 (28.5)	14 (4.9)	253 (22.4)

More than half of the clients (n = 156) in the 55 years and over group had five or more medications documented as prescribed, and 55% (n = 158) had a documented medication review within the previous 12 months. Further, as shown in Table 2, previously, no Domiciliary Medication Management Reviews were billed, highlighting missed opportunities for revenue generation, as well as home pharmaceutical education and safety checking.

7.4.5 Clinical measurements

Blood pressure (BP), lipid levels, blood glucose level (BGL) and kidney functioning are all clinical measurements that assess the risk of cardiovascular disease, diabetes or chronic kidney disease. They are therefore important to address to reduce the risk of chronic disease and dementia. Documented evidence of BP readings, urinary albumin–creatinine ratio (ACR) readings, blood glucose levels (HbA1C), glomerular filtration rate (eGFR) and lipid profile (low-density lipoprotein cholesterol [LDL-C], high-density lipoprotein cholesterol [HDL-C], triglycerides and total cholesterol/HDL ratio) within the last 12 months were audited (Table 11). The HSR response to abnormal readings (as per the *National Guide to a Preventive Health Assessment for Aboriginal and Torres Strait*

Islander People) were also audited (Table 11; National Aboriginal Community Controlled Health Organisation & The Royal Australian College of General Practitioners, 2018).

Most clients (83.2%, n = 939) had a recorded BP reading taken in the previous 12 months. Of these, 22% (n = 210) had a systolic reading of greater than, or equal to, 140 mmHg (viewed as systolic hypertension). A management plan in place was considered a response by the health service to a systolic reading of ≥140 mm Hg. Of the 210 clients with systolic reading of ≥140 mm Hg, 34.6% (n = 72) had a management plan in place. The management plan involved one aspect, or a combination of 3–6 monthly BP checks, commencement or changes to medications, advice re medication compliance, general lifestyle advice, general 'monitoring', referral to a dietitian, referral to medical specialist (cardiologist or general physician), and referral for further investigations such as an echocardiogram.

With regard to ACR levels, 39% (n = 441) had documented evidence of an ACR test within the previous 12 months. Of these, 39% (n = 172) had abnormal results, indicative of 'leaky' kidneys, a precursor to renal disease. Of those with abnormal results, there was a documented HSR for 64% (n = 110). HSRs included one, or a combination, of dietary and/or lifestyle advice from the GP, repeat tests and monitoring, referral to a dietician, commencement or alterations to medications, advice re medication compliance, referral to a specialist (endocrinologist or nephrologist) or general medical physician, and referral to a diabetes educator.

An eGFR test was recorded for 63.7% (n = 719) of the total sample. Of those with a test result, 11.3% (n = 81) had eGFRs of <60 mL/min/1.73 m^2 (considered reduced renal function). Of those with abnormal readings, there was a documented HSR to 64.2% (n = 52). HSRs included one, or a combination, of monitoring by nephrologist or general medical physician, further investigations (renal ultrasound), referral to nephrologist and/or endocrinologist, general advice and/or lifestyle advice from GP, medication changes, advice re medication compliance, referral to a dietician and/or diabetes clinic and/or diabetes educator, and transfer to a larger hospital for possible dialysis.

Table 11: BP, ACR, HbA1C, eGFR, and Lipid Profile Readings and HSR

Domain	N (%)
BP reading	939 (83.2)
Systolic reading of ≥140	210 (22.4)
HSR to systolic reading of ≥140	72 (34.6)
ACR reading	441 (39.1)
Raised ACR*	172 (39)
HSR to raised ACR	110 (64)
eGFR reading	719 (63.7)
Low eGFR**	81 (11.3)
HSR to low eGFR	52 (64.2)
Lipid profile test	613 (54.3)
Abnormal profile***	531 (86.6)
HSR to abnormal profile	183 (34.5)

*Raised ACR is > 2.5 mg/mmol (male) or > 3.5 mg/mmol (female).

**Low eGFR is < 60 mL/min/1.73 $m^{2.}$

***LDL-C > 2.5 mmol/L OR HDL-C < 1.0 mmol/L OR Triglycerides >1.5 mmol/L OR Total cholesterol/HDL ratio >4.5 mmol/L.

Within the lipid profile audit, LDL-C, HDL-C, triglycerides and the total cholesterol/HDL ratio were checked. If any of those values were considered abnormal, the overall result was recorded as abnormal. A lipid profile test was recorded for 54.3% (n = 613) of the total sample. Of those tested, 86.6% (n = 531) had abnormal results. Of those with abnormal results, there was a documented HSR to 34.5% (n = 183). HSRs included one, or a combination, of repeat testing, dietary and/or lifestyle advice from the GP or nurse, medication consideration, changes to medications, referral to a cardiologist and referral to a dietician.

7.4.6 Physical activity, nutrition and obesity

Lifestyle behaviours significantly affect both chronic disease and dementia risk, and consequently influence the ability to age well. The HAAT audited documented rates or documented concerns around physical activity, obesity and nutrition (malnutrition and access to food), and included measurements of weight, height and body mass index (BMI). The results of low levels of physical activity and obesity, along with the HSR, are presented in Table 12.

A physical activity question is in the AHC. If this question was asked, or a clinician had specifically asked questions around physical activity levels in other sections of the clinical notes, or a formal screening tool had been used, this was considered evidence of

assessment of physical activity. Of the total sample 27.8% (n = 314) were assessed. Of those assessed, there was documented evidence of concerns around low levels of physical activity for 36.6% (n = 115) of clients. Where concerns were raised, there was an HSR for 37.4% (n = 43) of cases. An HSR included one, or a combination, of advice (n = 66), referral to a physiotherapist or exercise program (n = 4), and information about online fitness apps (n = 1).

Table 12: Concerns Raised about Physical Activity and Obesity and HSR

Domain	N (%)
Physical activity	314 (27.8)
Concerns raised	115 (36.6)
HSR to concerns raised	43 (37.4)
Obesity	0 (0)
Concerns raised	194 (17.2)
HSR to concerns raised	187 (96.4)

There was no screening or assessment question for obesity in the AHC. Although 219 (19.4%) had a diagnosis of obesity, there was no evidence of any assessment specific to obesity recorded in the charts audited. Although weight, height and BMI readings were audited, these variables were not presumed to have been used to screen obesity. Instead, the audit focused on whether concerns about obesity had been raised, or diagnosed, by the GP or dietitian. Of the total sample, concerns with obesity or being overweight were raised in 17.2% (n = 194) of the clients. Where concerns had been raised, there was an HSR in 96.4% (n = 187) of cases. An HSR included one, or a combination, of advice on diet, exercise or general healthy lifestyle (n = 165); consideration/commencement of medications (n = 18); referral to a dietician (n = 73); referral to a specialist for consideration of bariatric surgery (n = 6); and online app information (n = 3).

7.5 Medicare Benefits Schedule billing

The Medicare Benefits Schedule (MBS) is a list of health professional services subsidised by the Australian Government. Each service on the list is referred to as an MBS item and has been assigned a unique MBS item number. In practice, this is a code used to claim a Medicare benefit for that service. For a Medicare benefit to be paid, the service provided must match the item descriptor and all item requirements (Department of Health and Aged Care [DoHAC], 2024). Claiming from the Australian Government for Medicare items is a means of raising revenue for the health service. Billing claims that are relevant to ageing

well, such as the AHC, GPMP, TCA, medication reviews and mental health plans, as well as AH, Nurse Practitioner (NP) and IHW involvement were audited as a proxy measure for service utilisation (Table 13).

Table 13: Billing of Services

Item numbers	Service	N (%)
715	Adult Health Check	284 (25.2)
721	GP management plan (GPMP)	171 (15.2)
723	Team care arrangements (TCA)	152 (13.5)
732	Review of GPMP or TCA	56 (5)
900	Domiciliary Medication Management Review	0
2700-2717	Mental health planning	12 (1.1)
10987	Follow-up from nurse or IHW	12 (1.1)
82200-82215	Nurse Practitioner	0
81300	IHW	0
10951-10970/ 81315-81360	Allied health	54 (4.8)
81305	Diabetes Educator	2 (0.2)
81310	Audiologist	0 (0)
	No claims	745 (66)

There were low rates of billing for services provided by members of the multidisciplinary team such as IHWs, Diabetes Educators (DEs) and AH. Low rates were also found for the AHCs claimed, with only 25% of clients being billed for an annual AHC at the time of the audit. Despite high rates of chronic disease (see Table 6), there were low numbers of GPMPs (n = 171) or reviews of plans (n = 56) being claimed. No NP claims or IHW claims were made. For over half the sample (n = 745), no claims were made related to chronic disease management or other areas that could support ageing well.

7.6 Other conditions associated with ageing

7.6.1 Vision and hearing impairment

Both vision and hearing impairment are risk factors for dementia (Livingston et al., 2024). Having either vision or hearing loss can affect a person's function, and ultimately their QoL, including the ability to socially engage and participate in community events. The results of vision and hearing assessments, and the HSR response to concerns raised with vision and hearing are presented in Table 14.

Table 14: Vision and Hearing Screening and HSR

Domain	N (%)
Vision	377 (33.4)
Concerns raised	84 (22.3)
HSR to concerns raised	83 (98.8)
Hearing	53 (4.7)
Concerns raised	34 (64.2)
HSR to concerns raised	34 (100)

Eye screening tests included visual acuity (VA), pupil dilatation for fundal examination, relative afferent pupillary defect (RAPD), intraocular pressure (IOP), fundoscopy, and extraocular muscle (EOM) function tests with the intent to screen for retinopathy, glaucoma, age-related macular degeneration (AMD), cataracts and trichiasis. If any one of the tests were conducted, a positive response to having had an eye screening was recorded. Of the total sample 33.4% (n = 377) had one or more screening tests. The VA test forms part of the AHC, and this was the most common test conducted with 371 clients. In all but one case, there was a documented HSR to the concerns raised. The HSR included one, or a combination, of a referral to the ophthalmologist or optometrist, prescribed eye drops or other medications for infections, referred for cataract surgery, prescribed glasses or referred for surgery in two cases with pterygium.

Only 4.7% (n = 53) of clients had documented evidence of a hearing screen being conducted within the previous 12 months. Of those screened, concerns regarding hearing were raised with 64.2% (n = 34). Where concerns had been raised, there was an HSR in all cases. An HSR response included one, or a combination, of being referred to, or already under the care of, the audiology service; referral to Hearing Australia; referral to an ear nose and throat (ENT) specialist; or being prescribed hearing aids.

7.6.2 Osteoporosis

Osteoporosis is a chronic condition defined by low bone mineral density, increasing the risk of fractures; however, osteoporosis is largely a preventable disease (AIHW 2024c). The diagnosis of osteoporosis requires an assessment of bone mineral density (BMD), using a Dual Energy X-ray Absorptiometry (DEXA) scan. There are a wide range of medications and non-pharmacological interventions available to manage osteoporosis (AIHW, 2024c). The results of osteoporosis screening and HSRs to diagnosis and prevention are presented in Table 15.

Only five eligible clients were screened for osteoporosis and of those, 40% (n = 2) were deemed high risk. Of those two clients, both were diagnosed with osteoporosis and commenced on medications (risedronate, cholecalciferol, denosumab). However, since 146 women in the sample were aged 55 and over, these low figures suggest missed opportunities for screening a large number of potentially postmenopausal women.

Table 15: Osteoporosis Screening and HSR

Domain	N (%)	N/A*	Unknown menopausal status**
Osteoporosis screening	5 (0.4)	739 (65.5)	93 (8.25)
Client deemed high risk	2 (40)		
HSR to high-risk clients	2 (100)		

* N/A for clients not in correct age range—osteoporosis screening is recommended for all postmenopausal women and men over the age of 50 as per the *National Guide to preventive health assessment for Aboriginal and Torres strait islander people* (National Aboriginal Community Controlled Health Organisation & The Royal Australian College of General Practitioners, 2018).

** Unknown from medical record if client is postmenopausal.

7.6.3 Foot problems

Given the high rates of diabetes, particularly in those older than 55 years, where almost 70% (n = 198) had this diagnosis, it was important to consider whether clients had received a foot check within the last 12 months. Foot check results are presented in Table 16. The majority of foot checks were conducted by the podiatrist and were related to diabetes management.

7.6.4 Dental issues

The AHC contains a question pertaining to a dental check-up completed in the previous 12 months. If this was answered ‘yes’, it was recorded in the audit that a dental check had been carried out, even if there were no written clinical notes from the dental service in Best Practice™. The dental checks are presented in Table 16.

Table 16: Foot and Dental Checks

Domain	<55 years (n = 840) n (%)	≥55 years (n = 288) n (%)	Total (N = 1,128) n (%)
Foot check	65 (7.7)	61 (21.2)	126 (11.2)
Dental check	65 (7.7)	26 (9)	91 (8.1)

7.6.5 Continence issues

The AHC also records issues with continence. Any responses regarding continence on the AHC were regarded as a continence screen, in addition to any notes regarding continence in the clinical progress notes of any clinician. In the 55 years and over age group, 26.4% (n = 76) had documented evidence of a continence screen. Common issues raised were stress incontinence and urge incontinence. Interventions included one, or a combination, of referral to a physiotherapist for pelvic floor exercises (n = 5), commenced medications (n = 1), referral to continence nurse (n = 4), supply of incontinence aids (pads; n = 6), insertion of indwelling catheter (n = 1), referral to urology (n = 4), and referral to the Far North Regional Obstetric and Gynaecological Service (n = 1). Of the 177 clients screened, 40.1% (n = 72) were male, and 59.9% (n = 105) were female. The results of continence screening are presented in Table 17.

Table 17: Continence Screening and HSR

Domain	<55 years (n = 840) n (%)	≥55 years (n = 288) n (%)	Total (N = 1,128) n (%)
Continence screen	101 (12)	76 (26.4)	177 (15.7)
Concerns raised	6 (5.9)	20 (26.3)	26 (14.7)
HSR to concerns raised	4 (66.7)	15 (75)	19 (73.1)

7.6.6 Mood disorders

Mental health issues for Indigenous populations, particularly in older persons, are a pressing issue (Russell et al., 2023), and depression is a risk factor for dementia (Livingston et al., 2024). Diagnoses of depression and anxiety were audited, along with documented evidence of screening for social and emotional wellbeing (SEWB) within the previous 12 months. The types of screening tools used for SEWB screening were audited, along with any HSR to concerns raised. The results are presented in Table 18.

Various mental health screening tools were used and included adaptations/modifications to existing tools, especially within the AHC. Both paper-based tools uploaded into Best Practice™ and electronic versions in the AHC template in Best Practice™ were in use. The different types of tools used included either one, or a combination, of variations of the Patient Health Questionnaire (PHQ; Kroenke et al., 2001), with two, three and six questions variants; the Depression Anxiety and Stress Scale (DASS; Lovibond & Lovibond, 1995); the Edinburgh Postnatal Depression Scale (EPDS; J. Cox et al., 1987); the Geriatric Depression Scale (GDS; Yesavage & Sheikh, 1986); the Kessler Psychological Distress Scale (K10; Kessler et al., 2002); the Kimberley Indigenous Cognitive Assessment—Depression (KICA-dep; Almeida et al., 2014); the Posttraumatic Stress Disorder checklist for the Diagnostic and Statistical Manual of Mental Disorders Version 5 (PCL-5; Blevins et al., 2015); and the Prolonged Grief Disorder (PGD; Killikelly & Maercker, 2017) tools. In addition, within the AHC template (both paper and electronic versions) were SEWB questions with two versions: (1) three questions and (2) six questions; however, it is unclear which tool these questions were from and whether it was a validated tool being used. The frequencies of these tools used were as follows: PHQ2 (n = 44), PHQ3 (n = 93), PHQ6 (n = 5), DASS (n = 13), EPDS (n = 17), GDS (n = 11), K10 (n = 16), KICA-dep (n = 1), SEWB six questions (n = 34), SEWB three questions (n = 21), PCL5 (n = 1) and PGD 3 (n = 1). ‘General questions’ refers to a clinician noting mood discussed/mood status documented within the clinical progress notes but no evidence of a validated tool being administered.

Within the total sample, 30.4% (n = 343) had a screen of mood or SEWB, either by general questions asked, a tool administration, or both questions asked and a tool administered. Within those screened, concerns around mood or SEWB were raised with 29.7% (n = 102) of clients. Where concerns were raised, there was an HSR with 93.1% (n = 95) of clients. HSRs included one, or a combination, of referral to a mental health service/psychology service (state or private; n = 43), referral to the SEWB team (n = 17), discussion or commencement of medications (n = 23), advice/counselling by PHCC staff (n = 25), information about online apps (n = 3) and admission into hospital for further management (n = 3).

Table 18: Mood Disorders, SEWB Screening and HSR

Domain	N (%)
Depression diagnosis	69 (6.1)
Anxiety diagnosis	2 (0.2)
Mood/SEWB screening	
Standard tool	183 (16.2)
Questions only	91 (8.1)
Both	69 (6.1)
Concerns raised	102 (29.8)
HSR to concerns raised	95 (93.1)

7.7 Cognitive functioning

When auditing cognitive status and evidence of assessment of cognition, the HAAT specified only clients aged 45 and over to be audited. This cut-off was taken following the dementia prevalence study in the region, where cognitive impairment was seen in clients aged 45 and over (Russell et al., 2020). The results of cognitive screening and HSRs to concerns raised are presented in Table 19.

Table 19: Cognitive Screening and HSR for Clients aged ≥45 years (n = 474)

Domain	N (%)
Cognition screen	90 (19)
Screening by	
General questions by GP in consult	5 (5.5)
Questions in the AHC	33 (37)
Screening tool	59 (65.5)
Concerns raised	35 (7.3)
HSR to concerns raised	
Referred to a specialist	43 (9)
Further investigations* carried out	6 (17.1)

*CT-brain, or MRI-brain, or blood tests.

Concerns were raised about cognition in 7.3% (n = 35) of the total sample aged 45 and over. Concerns were raised by one, or more, of the following: client (n = 7), family member or carer (n = 1), nurse (n = 1), IHW (n = 1) and GP (n = 13), with other records not specifying who raised concerns. Of the total sample of clients aged 45 and over, 19% (n = 90) were screened for cognition. Of those screened, one or more of the following was used to screen: general questions asked by the GP during a consult 5.5% (n = 5), standard questions on the AHC 33 (37%) and the use of a validated tool 65.5% (n = 59). With regard to the type of cognitive screening tool used, one or several of the following

tools were used: MMSE[5] (n = 35), KICA-cog[6] (n = 27), CDT[7] (n = 6), Mini-Cog[8] (n = 6), MOCA[9] (n = 1), VFT[10] (n = 2) and ACE-III[11](n = 2). The tools were administered by either the GP or the visiting geriatric specialist team.

Although cognitive concerns had been raised with 7.3% (n = 35) of clients 45 years and over, 9% (n = 43) of the 45 years and over age group had seen a visiting geriatrician. The geriatrician also saw clients without any documentation of cognitive concerns to address other problems of ageing.

7.7.1 Enduring Power of Attorney, Advance Care Planning and End of Life care

Documented evidence of discussions, or completed paperwork uploaded into Best Practice™, were audited for Enduring Power of Attorney (EPOA), Advance Care Planning (ACP) and End of Life (EOL) care. The results are presented in Table 20. ACP included discussions or putting in place an Advance Care Directive (ACD).

Table 20: EPOA, ACP and EOL Care Discussions or Completed Paperwork for Clients >55 years (n = 288)

Domain	N (%)
EPOA appointed or discussed	15 (5.2)
EOL care discussed	0 (0)
ACP /ACD discussed or in place	19 (6.6)

Very limited documentation of a client having discussions with any clinical staff, or having appointed an EPOA, was recorded, with only 15 recorded cases in the sample of 288 adults aged 55 and over. No evidence of discussion about EOL care was recorded across the sample of 288 adults aged 55 and over. Only 6.6% (n = 19) of the 288 adults aged 55 and over had documented evidence of ACP.

[5] Mini Mental State Examination (Folstein et al., 1975).
[6] Kimberley Indigenous Cognitive Assessment (LoGiudice et al., 2006).
[7] Clock Drawing Test (Hazan et al., 2018).
[8] The Mini-Cog (Borson et al., 2000).
[9] The Montreal Cognitive Assessment Tool (Nasreddine et al., 2005).
[10] Verbal Fluency Test.
[11] Addenbrooke's Cognitive Examination-III (Hsieh et al., 2013).

7.8 Functional status

Maintaining physical function and independence plays a significant role in the ability to age well. Evidence of assessments of function, and episodes of service for AH staff (who are most likely to conduct functional assessments) were audited (Table 21).

Over half (60%, n = 36) of the functional assessments carried out in the 55 years and over age group were carried out as part of the AHC. The functional assessments completed by the GP (n = 34) and IHW (n = 2) were part of the AHC. The remainder of the functional assessment completed (not part of an AHC) were carried out by AH (n = 11) and the visiting geriatric service (n = 14).

Personal Activities of Daily Living (ADLs) include showering, dressing and toileting. Instrumental ADLs include shopping, cooking, cleaning, laundry, transport and managing medications. All functional assessments included an assessment of personal and instrumental ADLs. Other domains documented included assessments of pain (n = 19), falls (n = 35), financial capacity (n = 13), driving (n = 24), mobility (n = 6) and continence (n = 3). Concerns were raised about any aspect of functional ability with 10 clients, which represents 3.5% of those aged 55 and over. Where concerns were raised, there was an HSR to 90% (n = 9). An HSR included one, or a combination, of equipment provision (handrails, shower chair), referral to external agencies for home modifications and referral to the AH team if not already involved.

Table 21: Functional Assessment, Concerns Raised and Allied Health Input for Clients >55 years (n = 288)

Domain	N (%)
Evidence of a functional assessment	60 (20.8)
Assessment as part of the AHC	36 (60)
Components of functional assessment documented	
Personal ADLs	60 (20.8)
Instrumental ADLs	60 (20.8)
Pain	19 (6.6)
Falls	35 (12.2)
Financial capacity	13 (4.5)
Driving	24 (8.3)
Mobility	6 (2.1)
Continence	3 (1.1)
Concerns raised	10 (16.7)
HSR to concerns raised	9 (90)
Occasions of service of AH	
Podiatrist	58 (20.1)
Physiotherapist	43 (14.9)
Dietitian	42 (14.6)
Diabetes Educator*	29 (10.1)
Occupational Therapist	24 (8.3)
Pharmacist	7 (2.4)
Speech Pathologist	3 (1)
Social Worker	3 (1)
Psychologist	0 (0)
Type of service delivered	
Weight management/nutritional support	19 (6.6)
Pain management	29 (10.1)
Activity program	0 (0)
Medication management	7 (2.4)
Housing, Aged Care, NDIS referrals	2 (0.7)
Home visit assessment, modifications and equipment	20 (6.9)
Provision of mobility aids	5 (1.7)
Foot care	58 (20.1)
Diabetes education and management	40 (13.9)
Falls prevention	3 (1)
Pelvic floor exercises	1 (0.3)
Speech and swallowing therapy	3 (1)
Hand therapy	1 (0.3)
Stroke rehabilitation	1 (0.3)
Pulmonary rehabilitation	1 (0.3)
Compression therapy	1 (0.3)
Vestibular therapy	1 (0.3)

**Filled by role of nurse within TCHHS

7.9 Support services and social engagement

Aged care services can assist a person to remain living within their own home. There are two levels of assessment provided by the Commonwealth Government that provide approvals for two different tiers of service. The first-tier assessment is carried out by a Regional Assessment Service (RAS), who can approve a Commonwealth Home Support program (CHSP), formerly known as Home And Community Care (HACC; and still frequently referred to as HACC within the region). The second tier is for approvals for Home Care Packages (HCPs), residential respite and permanent care approvals within an RACF. These assessments are conducted by the ACAT. Evidence of either a RAS assessment or ACAT assessment, or evidence that the client was formal receiving support services either from an Age Care provider or NDIS provider was audited, and the results are presented in Table 22.

Table 22: Support Services and Social Engagement

Domain	N (%)
RAS or ACAT assessment	18 (6.3)
Evidence of receiving Aged Care services	11 (3.8)
Evidence of receiving NDIS support	5 (0.5)
Evidence of social engagement through:	
Church	4 (0.4)
Family	12 (1.1)
Community groups	1 (0.1)
Cultural events	1 (0.1)
CHSP/HCP—group activity	1 (0.1)
Social organisation/club	1 (0.1)
Sporting organisation/club	6 (0.5)
School club	1 (0.1)
Army Reserves	1 (0.1)

Social isolation is a risk factor for dementia (Livingston et al., 2024). There is no specific question in the AHC that screens for social isolation. The clinical notes were audited for documented evidence of social engagement through a variety of outlets. The results are presented in Table 22.

7.10 CQI activities

The methods for implementing the CQI activities were explained in Section 5.4.1 (Implementing CQI). The following section of this chapter details the activities carried out by the five PHCCs.

7.10.1 Site-specific workshops

Details of the number and composition of the face-to-face workshops completed as part of the CQI activities, along with details of attendees at each site, are outlined in Table 23. As well as the formal face-to-face workshops, several other opportunistic informal catchups were held in person with individual staff members and via email correspondence. Not all staff attended all meetings. Additionally, HART team members also involved in all sessions included me, as the lead researcher, and a neuropsychologist. Other team members (geriatrician and two IHWs) attended intermittently.

7.10.2 Activities

Some of the CQI activities were specific to an individual PHCC, whereas many were common, with more than one PHCC identifying a particular issue as a priority. The five sites used their own PHCC's data to pursue the activities they prioritised. However, as all the PHCCs fell under the governance of the TCHHS, many activities had a flow on effect at other PHCCs with changes made across all sites, such as access to dental services through the Australian Defence Force. Furthermore, ideas and successes were shared across PHCCs and then consequently taken up by other sites, such as TVs in the clinic waiting room. As such the activities identified for the PDSA cycles are aggregated as follows in Table 24.

Table 23: Details of the Number and Composition of the Face-to-Face Workshops

Site	Number of workshops	Staff involved

1*	Seven	• TCHHS Primary Health Care Program Director
		• Indigenous Practice Manager (PM) of the PHCC that housed the outreach team on a different island
		• Staff of the outreach team
		  • IHW outreach team leader
		  • Indigenous Clinical Nurse (CN)
		  • 2 IHWs
		  • 2 non-Indigenous CNs

2	Five	• Indigenous PM • 3 IHWs • 2 non-Indigenous CNs—one of whom has lived and worked on the island for several decades • regular visiting non-Indigenous GP • Indigenous admin officer of the PHCC
3	Five	• Indigenous PM • 1 IHW • 1 non-Indigenous NP who has worked at the PHCC and lived on the island with her family for several decades
4**	Three	• 2 IHWs • 1 non-Indigenous locum CN
5	Six	• TCHHS Indigenous Assistant Director of Nursing Workforce Design • TCHHS Primary Health Care Program Director • Indigenous Island Cluster Manager for the region (whose position manages the PM) • Indigenous Program Manager • Indigenous PM • 1 Indigenous Clinical Nurse Consultant (CNC) • 1 IHW coordinator • 3 Advanced IHW • 2 IHW • 2 Indigenous AH Assistants (AHA) • 1 Indigenous school-based trainee • 2 non-Indigenous CNs

*As described in Chapter 1, this community is serviced by an outreach team because there is no health centre on the island.

** This PHCC was without a permanent PM and had locum CNs for the majority of the implementation phase.

Table 24: CQI Activities

Priorities	Issues identified	PDSA goals	Activities
Adult Health Checks (715)	• Inconsistencies: different versions of the AHC within and across PHCCs (paper-based & electronic versions)	• Develop one consistent template (paper-based & electronic)	• Sourcing the RACGP 715 template that was uploaded into Best Practice™ as an alternative tool to the electronic version in Best Practice™
	• Low rates of completion • High rates of incomplete AHCs – often first part of the AHC started with the IHW but fails to see GP to complete	• Increase AHC numbers • Increase completion rates	• Clients invited, and appointments allocated, specifically for AHCs • Recalls for AHC prioritised • Longer appointment times to complete AHCs with the IHW • Exploring incentives to increase client participation and attendance for AHCs, such as having a promotional drive at community events, and community education sessions
	• Low rates of billing for AHCs	• Increase billing of 715	• Working with Best Practice™ support to understand the billing process
	• Not always inclusive decision making with the client	• Increased patient involvement in decision-making to make the AHC patient-focused and holistic • IHW to be present at medical review to help explain results and management plan	• Written lay communication after a consult to explain outcomes of the consult

Priorities	Issues identified	PDSA goals	Activities
	• Content lacking depth for more ageing specific domains (e.g. cognition, continence, falls, pain and function)	• Include more age specific content, such as more memory, falls, and continence questions	• Liaison with TCHHS Executive regarding a working group to look at content within the 715 and a new electronic version
	• Content lacking in the social and cultural determinants of health (biomedical orientated) such as SEWB, social engagement, cultural connections	• Include an ageing well accompaniment guide to completing an AHC • Longer appointment for a holistic AHC	
	• Lack of linked/included culturally appropriate screening tools	• Include links to culturally appropriate- validated screening tools	• Discussions with the Northern Australian Regional Digital Health Collaborative to explore options for digitising health checks onto portable tablets with links to culturally appropriate screening tools
	• Lack of 'red flags' for identifying decline and frailty in older clients		
	• Lack of coherent linkage to a management plan: 715 viewed as a data collection tool rather than linked to referral pathways and care plans, to address concerns	• Clearer pathways of care and referral processes	• Collaboration with the Far North Queensland HealthPathways Team)* to advise on appropriate templates for the Aboriginal and Torres Strait Islander Health Assessment and provided them with culturally appropriate cognitive screening tools and other resources for their website.
Dental Checks	• No visiting dentist making access to dental care difficult	• Increased dental checks	• Completing dental check questions on the AHC and IHW providing education around the importance of oral health • Exploring alternative options to delivery of dental services such as Council looking at utilising dental

Priorities	Issues identified	PDSA goals	Activities
			services from the Australian Defence Force, or through James Cook University via dental student placements or student-led model of care • Highlighting with TCHHS need for subsidised travel/accommodation costs for clients to go to TI for dental health care
Culturally appropriate assessment of mood and SEWB	• Numerous different tools within the AHC used to measure mood and SEWB – most not validated within Aboriginal and Torres Strait Islander populations	• Increase culturally appropriate mood/SEWB screening into the AHC	• Development of a culturally-appropriate screen for depression and anxiety – '*Any Worries Yarn'* (Meldrum et al., 2024) that is currently being validated. Two sites are participating in the validation component of the project as part of their CQI initiatives. Staff received training in delivering the tools and were provided with additional resources around information and support for mood concerns. A third site is in progress for joining in the validation project
	• Lack of appropriate spaces within the PHCC to carry out sensitive yarning around mood		• Advocating/inputting into a business plan for a 'yarning space' into a planning forum for a new redevelopment of a PHCC building, for one of the sites • Provision (in progress) of portable tablets within the TCHHS allowing IHWs to sit with clients in appropriate spaces, external to the clinic setting (home, outdoor settings) to complete yarning sessions around SEWB/mood

Priorities	Issues identified	PDSA goals	Activities
Social engagement	• Lack of programs locally that support social engagement	• Increased opportunities, with regular schedules, for social groups	• Liaison with local primary school to utilise library space and facilitate intergenerational activities between older residents and school-aged children • Ongoing discussions with JCU-based program ('Top of Australia' initiative for Allied Health and Nursing student placements on Thursday Island) that delivers AH student-led activity and social engagement programs on TI to extend their service to include Ngurupai • Liaison with external stakeholders such as Kaurareg Native Title Office, and Gur A Baradharaw Kod (Torres Strait Sea and Land Council Torres Strait Islander and Aboriginal Corporation) (GBK) for potential community space to hold social activities • One PHCC arranging input into a local social group to provide education sessions around a variety of health topics such as falls prevention, and dementia education in order to promote social engagement activities within the community • Liaison with the Mura Kosker Sorority Inc., Older People's Action Program (OPAP), to collaborate in organising social activity events for the older community members
	• Lack of screening in the AHC around social isolation	• Social isolation questions in the AHC	

Priorities	Issues identified	PDSA goals	Activities
Culturally appropriate assessment of physical activity and diet	• Physical activity and diet questions in the AHC are superficial with lack of validated tools available to use	• Links in Best Practice™ to validated tools for assessing diet and physical activity • Increased meaningful screening of physical activity and diet with higher completion of questions in the AHC	• Participation in a project to develop culturally appropriate assessment tools for diet and physical activity
	• Limited pathways of care to address low physical activity	• Implementation of activity programs to refer to within the TCHHS	• Liaison with AH Executive and team leads regarding group exercise classes • Liaison with external stakeholders, such as a school, to run intergenerational activity programs
Health promotion, chronic disease prevention, and dementia risk reduction	• Lack of health promotion and preventative health care within the TCHHS	• Increased community awareness around chronic disease prevention • Increased community awareness around dementia risk reduction and ageing well strategies	• Collaborations with external stakeholders included liaison with: o CEQ re: community gardens, and community chronic disease prevention programs o Councils re: Harvest Festivals, community gardens, seasonal food calendar, and community chronic disease prevention programs o OPAP re: activity program for the older community members o JCU based ‘Top of Australia’ initiative, for Allied Health and Nursing student placements on Thursday Island, to deliver an activity program to other sites o Schools re: intergenerational activity program

Priorities	Issues identified	PDSA goals	Activities
			o Northern Peninsula Area Family and Community Services (NPAFACS) re: local activity and health promotion programs o Council re: community gym equipment in public places. • Input into a local social group to provide health education sessions around a variety of health topics such as falls prevention, and dementia education within the community • Dissemination across the communities of the HART produced Podcast – *'Lets yarn! Ageing well in the Torres Strait'* • Having the brain health and dementia risk reduction information videos playing in the departure lounge at Horn airport – in progress
	• Staffing ratios results in focus on managing acute presentations to the detriment of being able to provide health promotion activities	• Health promotion to have greater importance within the TCHHS	• Operational plan to include health promotion officers in a specific team, submitted to TCHHS Executive • Health promotion and community education days. Yearly schedule planned with monthly themes such as falls month, dementia month, foot care month, continence month. TCHHS AH staff invited to also contribute to the sessions. Potential to include invited specialists to contribute • Liaison with the TCHHS Mens' and Womens' Health teams to incorporate ageing well and dementia risk reduction into their programs • Exploring ways of delivering health promotion within the waiting room at a PHCC. Posters developed for

Priorities	Issues identified	PDSA goals	Activities
			ageing well, but also running health promotion videos on a TV mounted in the waiting room (content for dementia risk reduction and brain health already developed as part of another HART project). PHCC escalating need for TVs within the TCHHS and alternatively through a Far North Queensland Hospital Foundation (FNQHF) grant
Allied Health and specialist services	• Limited access to a diabetes clinic	• Diabetes clinic at site 2	
	• Limited access to audiology, optometry, and community physiotherapy, social work, pharmacy and speech pathology • Limited access to visiting medical specialists • Podiatry and dietetics services limited to diabetic clients	• Increased access to AH services	• Escalation and discussion around AH services with the AH Executive and team leaders • Exploring collaborations with other stakeholders that provide AH services (CEQ, JCU) • Resumption of audiology services via Hearing Australia • Consideration of using a GPMP or TCA to fund private AH services • Consideration of claiming MBS 900 within the TCHHS to generate funds for a community pharmacist
Equipment	• Requirement for specific equipment; Centrifuge and LIFEPAK™ defibrillator for outreach team; TV for health promotion in PHCC waiting room; hearing screening devices; tablets for offsite assessments	• To obtain listed equipment	• Successful submission made to TCHHS for a centrifuge • Current application in progress to the FNQHF for a LIFEPAK™ defibrillator • PHCC supplied with information around portable hearing screen devices • TCHHS in process of obtaining tablets

Priorities	Issues identified	PDSA goals	Activities
Hearing Checks	• Low rates of hearing screens completed	• To increase number of hearing screens	• Resumption of audiology services via Hearing Australia
	• Lack of training for IHWs in hearing screening	• For IHWs to receive training to complete basic hearing screens	• Discussions with management around hearing screening equipment – potential to share amongst other PHCCs in the area that do have equipment. Would require IHW training to use and a guide training to ensure sustainability
	• Lack of hearing screening devices in the PHCC – previously had 'Deadly Ears' (Queensland Heath Program) screening equipment and equipment provided through Hearing Australia	• For an audiology clinic to be established at one of the sites	• Information provided on simple hearing screening equipment that could be sourced through a FNQHF grant
Foot Checks	• Low rates of completed foot checks • Podiatrist only able to see Cat 1 clients – usually diabetic clients	• IHW training to do basic foot checks that can then be included into the AHC to increase numbers of clients 55 years of age and over that have an annual foot check	• Collaboration with the local Aged Care provider coordinator regarding education sessions with older residents about foot care • Foot care to be introduced into the monthly community education sessions run by one site with inclusion of the podiatrist • IHW and CN completed a '*foot care for older client*' course • Discussions around IHWs receiving training in the Diabetic Assessment of Risk Test (DART). This was done previously but not in recent years. Discussions with podiatrist and IHW manager in progress to look at training

Priorities	Issues identified	PDSA goals	Activities
Medicare Billing	• Low rates of billing for MBS items • Qualified NPs not employed in a NP role, but as CNCs so unable to maximise their eligibility to claim	• Increase billing of AH services and 715 • Training for understanding billing and minimum requirements for completing AHC before eligible to claim • Utilising the NP role to implement and claim chronic disease management plans and Team Care Arrangements	• Training received by Best Practice support team in claiming • Ongoing discussions within TCHHS regarding employing NPs
Cognitive Screening	• Low numbers of 55 years age and over group screened for cognitive impairment	• To increase screening rates of cognitive impairment	
	• Low utilisation of the KICA -cog (the only validated screening tool available for use with Aboriginal and Torres Strait Islander peoples)	• Training for IHWs to conduct KICA-cog screens	• Staff at all sites completed KICA training and provided with KICA kits
		• To increase staff knowledge about dementia	• Development of dementia, cognitive impairment and dementia risk reduction learning modules designed for Queensland Health staff training and currently being finalised with the aim to include them into staff mandatory training within the TCHHS

Priorities	Issues identified	PDSA goals	Activities
		• To increase community awareness around dementia and memory problems	• Production of ageing well and dementia risk reduction podcasts for community education rolled out
Carer Support	• Lack of a residential aged care facility and respite services • Lack of community based aged care services, respite options and RACFs locally • Carers facing challenges providing care and support	• Resources to support carers • A local RACF in the NPA with other respite options for outer islands	• Provided TCHHS with evidence from community regarding need for residential care at site 5. TCHHS looking at the feasibility of a Multi-Purpose Service that would include respite and permanent aged care beds at site 5 • Carer resources and a framework for supporting carers in the region developed

* HealthPathways is a website that offers primary care clinicians locally agreed information to make the right decisions, together with patients, at the point of care (https://fnq.communityhealthpathways.org/13454.htm).

In addition to the priorities outlined above (Table 24), other issues and priorities included the following.

Working to full scope of practice

- There are qualified NPs who are employed as CNCs within the TCHHS, so are unable to work to full scope of practice. Full scope of practice includes being able to prescribe on-site and implement chronic disease management plans, which is beneficial in a remote health settings with fortnightly visiting GPs. The goal would be to have NPs employed within identified NP positions.
- IHWs focus on acute issues and have limited resources to utilise their health promotion and preventative healthcare skills.

Regular schedule of the outreach team

There were issues with an ad hoc schedule for the outreach team to visit Site 1 owing to GP shortages. This was rectified and a fixed monthly visit is now in place. This means clients know when the team is visiting, allowing for improved attendance rates.

Breast screen results letters

Breast screen result letters are not always uploaded into Best Practice™. Ongoing consultation to explore how they can be uploaded into the software from My Health Record (Australian national digital health record platform).

Meals on Wheels

Meals on Wheels (delivered meals service provided under the CHSP) ceased in Site 2 from October 2022. Ways for providing a meal service for older residents through schools and the local aged care provider (ongoing) are being explored.

EPOA and EOL care

This was a sensitive area for IHWs to address, given the cultural protocols and cultural understanding of planning for death. The results of the audits were shared with the local EPOA project team and the newly employed local palliative care team for progression. The existing resources around EPOA and ACP that were developed within other Australian Indigenous communities were shared with staff.

National Disability Insurance Scheme and Aged Care assessments

Concerns were raised around a lack of transparency about the clients approved and the visibility of service providers in the area, as well as which clients were receiving services. Ongoing collaborations with all stakeholders regarding these are in progress.

Lack of accommodation

The lack of locally available accommodation makes it difficult to house clinical students when considering student-led models of care and accommodating visiting specialists.

No local Technical and Further Education courses

IHWs currently leave their community to complete IHW qualifications, and this is a disincentive for local people to train as IHWs. This means there are fewer qualified local IHWs, which is affecting the recruitment of local IHWs.

Continence nurse

The lack of a continence nurse is having an impact on the number of continence screens completed.

The AHC audit for the 55 years and over age group was repeated in February 2025 to analyse any changes following the CQI activities. The results of the second audit conducted in February 2025 were compared with audit one conducted between March 2022 and August 2023 (see Table 25).

Table 25: Evidence that an AHC has been completed within the last 12 months in clients 55 years and over

	Audit 1 **n (%)**	**Audit 2** **n (%)**
Kirriri	5 (14.7)	12 (30)
Ngurupai	7 (8)	19 (15.8)
Wug	19 (29.7)	13 (20.3)
Warraber	15 (65.2)	23 (82.2)
Bamaga	30 (38)	37 (14.3)
Total	76 (26.4)	104 (20.4)

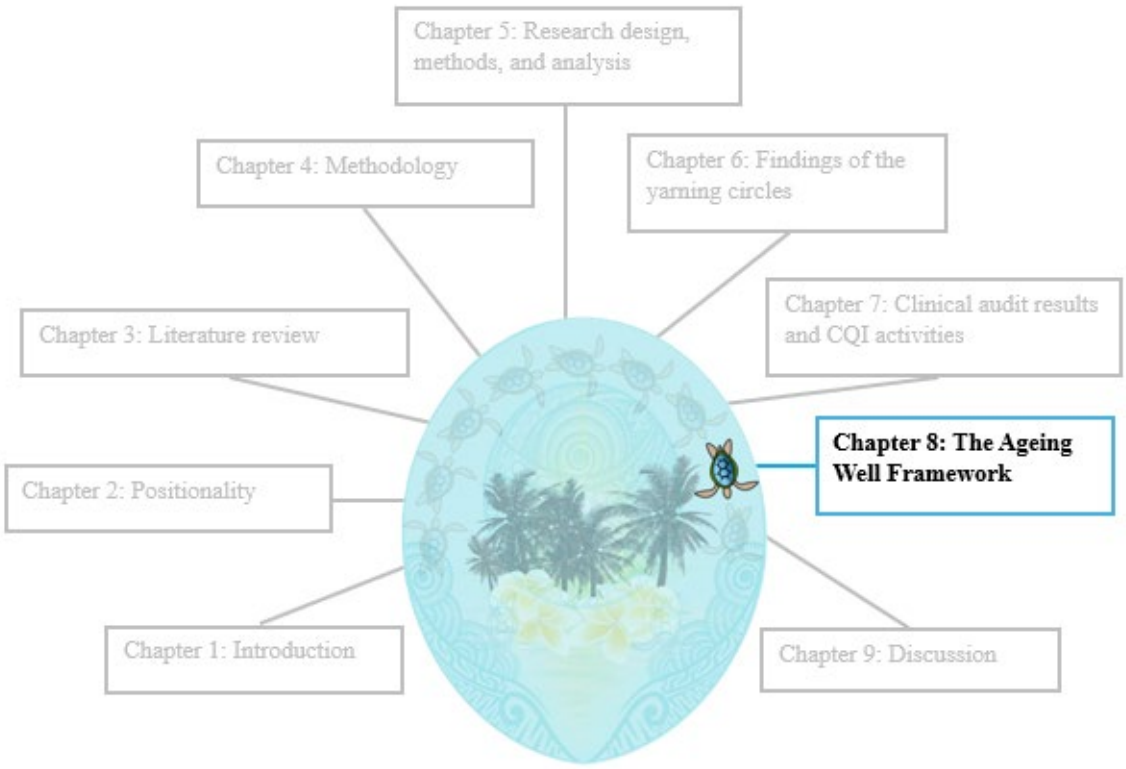
Given the small sample numbers at some sites and because increasing AHC numbers was only a priority at two sites, as well as other competing reasons influencing the number of AHCs completed within audit periods, the change in the numbers of AHCs completed across audits was not statistically analysed. Nevertheless, the results showed that the number of AHCs completed doubled in the two sites that had set goals around increasing the number of AHCs (Kirriri and Ngurupai). Despite only Kirriri and Ngurupai selecting 'improved AHC completion' as an action, the audit of AHCs was completed across all sites. This was to see if there had been an improvement in reporting on AHCs across all sites that could have been associated with health service wide directives or system changes in reporting, rather than a particular PHCCs own initiatives, which would have skewed the CQI data results. The other sites in this instance acted as "controls" for this item.

Audits were not repeated on any priorities other than the AHC because: (1) many of the activities chosen by the PHCC involved broader goals embedded within the social and cultural determinants of health, and thus achievements would not be identified in the HAAT audit, with many of the outcomes dependent on external stakeholders; and (2) activities are still ongoing.

7.11 Chapter summary

In this chapter, I have presented the results from the clinical audits (PAR Cycle Two) and the CQI activities (PAR Cycle Three). The results from the audits and CQI activities, along with the findings from the yarning circles were synthesised to inform principles and action strategies that will be incorporated into the Ageing Well Framework (PAR Cycle Four). The following chapter presents the principles and action strategies to be incorporated into the Ageing Well Framework.

Chapter 8: The Ageing Well Framework



8.1 Chapter outline

In this chapter, selected components of the Ageing Well Framework that relate to my PhD are presented. The finalised version of the Ageing Well Framework is intended to be a standalone document, including various tools and resources that are outside the scope of this PhD but fall into the wider body of HART work. Currently, HART are developing and validating a range of tools to be included in the Ageing Well Framework, such as the '*Any worries yarn*' (a socioemotional wellbeing screen), the '*Good Spirit Good Life*' (QoL tool), a resource to support carers, dementia training modules for the TCHHS, and app-based diet and physical activity screening tools specific to the region. These projects are still ongoing, and therefore, a completed Ageing Well Framework is still under development. Further, the finalised Ageing Well Framework will include the background of HART, the background to the research project, the Healthy Ageing logo and an overview of the findings from the yarning circles, all of which have already been presented in this PhD thesis, and therefore do not need to be repeated in this chapter. For these reasons, the preamble to the Ageing Well Framework, including the Foreword,

Executive Summary, and the Purpose and Scope sections, as well as the tools and resources, are not included in this thesis. The references included use the referencing style of the thesis, rather than the referencing style of the finalised Ageing Well Framework. Figures 16–19 and 21–23 are included 'Exemplars' within the framework. The graphic (Figure 12) showing the three levels targeted by the Framework is contained in the preamble to the Ageing Well Framework, and is therefore presented here to provide context for the sections that follow.

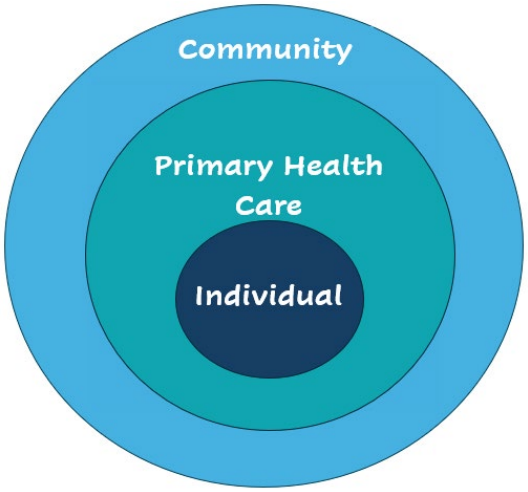


Figure 13: Graphic Showing the Three Levels of Targeted Strategies

8.2 Guiding Principles

Five principles underpinned this work and guided the development of the ageing well strategies. The principles came from the findings of the yarning circles, and the results of the clinical audits and CQI activities. The principles are outlined in Figure 14.

Valuing and respecting older adults

- Acknowledging older adults are valued and revered in their communities.
- Acknowledging many older adults are ageing well and highlighting and celebrating those achievements including the significant contribution older adults make to society.
- Honouring the wisdom and experience of older adults.
- Recognising that trust and respect are central.
- Acknowledging the impacts that culture, and history, including the continued impacts of colonisation, racism, discrimination, and socioeconomic disadvantage, have on ageing.

Supporting self-determination

- Centering people in decision-making and involving them in their own care.
- Respecting the choices made by individuals, families or communities.
- Recognising the needs, preferences and capabilities of all.
- Incorporating Indigenous culture, beliefs, and ways of doing to co-exist equally with Western biomedical perspectives and approaches.
- Understanding the holistic way of being that incorporates social, emotional, spiritual and physical health and wellbeing
- Knowing that health care should be provided simultaneously with traditional, holistic, trauma-specific, and strengths-based healing approaches and worldviews.

Equity of access and equitable outcomes

- Ensuring equity of access to quality care in all regions of the Torres Strait and NPA.
- This includes equity of access across the region as well as equity for the region compared to the rest of Australia.

Life course approach

- Recognising that a life-course approach is crucial to effectively addressing ageing and promoting long term health outcomes.
- Prioritising early interventions – such as healthy lifestyle choices –that can greatly enhance individuals' ability to age well.

Co-designing services

- Recognising that a strengths-based approach emphasising resilience, empowerment and active engagement is required in the development of programs.
- Recognising that community participation in solution design is crucial.
- Acknowledging decolonising approaches to facilitate ageing well are needed.
- Knowing that older adults' voices are imperative in providing understanding of their experiences.
- Understanding that models of care need to be holistic and integrated.
- New services need to complement rather than duplicate existing services.

Figure 14: Graphics to Present the five Guiding Principles

8.3 Ageing Well: Strategies for community action

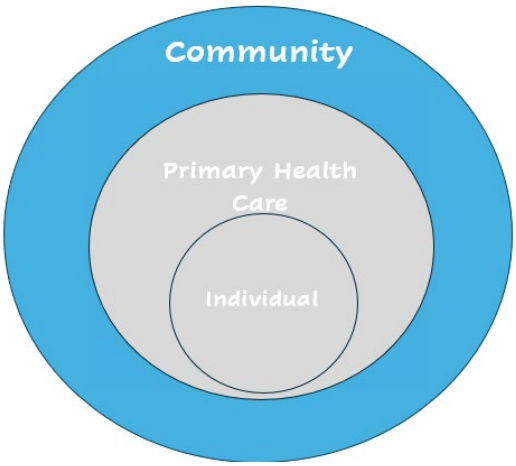


Figure 15: Community-Level Action

8.3.1 Aims

- For people of all ages to access programs and services across the life course that promote cultural, physical, mental, and social health and wellbeing, and facilitate the ability to age well.
- Older adults are actively engaged in their communities, fostering a sense of purpose through social, cultural and intergenerational connections, while promoting age-friendly environments that encourage ageing well.
- Older individuals are able to age in place, with access to necessary supports, such appropriate housing and social supports, as well as comprehensive health and aged care services.
- Families and carers receive the support, information and training they need to assist older adults in remaining functionally independent at home, while also being supported in maintaining their own health and wellbeing.

8.3.2 Strategies

Creating age-friendly environments

Age-friendly environments are designed to enhance the QoL for people of all ages, particularly older adults, supporting the needs and aspirations to age well in a place that is right for them. These environments eliminate physical and social barriers, and incorporate policies, systems, services, products and technologies that:

- promote health, and maintain physical and mental capacity throughout the life course
- enable individuals, even when facing reduced ability, to continue engaging in activities they value (WHO, 2020).

Such environments foster ageing well, supporting wellbeing throughout life. They allow people to remain independent for as long as possible, while also providing care and support when needed, ensuring that the autonomy and dignity of older adults are respected (WHO, 2015).

Housing

- *Accessible:* Affordable and timely home modifications can enable older adults to remain living at home.
- *Cluster 'Village' model:* Specifically designed houses co-located close to community services can facilitate efficient delivery, or the on-site provision, of home care supports, allied health services and overnight assistance.

Transport

- *Buses:* Free or subsidised bus services can facilitate older adults accessing shops, family and other social activities.
- *Ferry:* Free or subsidised evening ferry services can facilitate sporting and cultural events between island communities, which promotes physical activity and social engagement for residents all ages.

Public spaces

- *Outdoor activity:* Outdoor exercise equipment provides the opportunity for free access to engage in physical activity.
- *Age-friendly outdoor spaces*: Accessible, well-maintained footpaths, shade, rest benches/seats, public toilets and ramp access to buildings can all improve the mobility, independence and QoL of older people as they go about their daily lives beyond the comfort of their homes.

- *Indoor recreational spaces:* Free or subsidised, well-maintained recreational spaces, with gym instructors and structured exercise classes, can promote physical activity in all ages.
- *Safe spaces:* Environments free of roaming animals makes it safer to exercise outdoors.

Economic and financial support

- *Employment opportunities*: Communities that offer opportunities for older adults to continue working, volunteering or sharing their skills through paid positions can improve financial security and provide a sense of purpose.
- *Financial assistance:* Assistance with access to eligible pensions, subsidies, entitlements, payments and allowances that address the specific economic needs of older adults can reduce financial stress and ensure access to necessary resources.

Building capacity of a local workforce

- To ensure culturally safe and sustainable services, workforce models that attract, recruit, develop and support local residents—'Grow Your Own' models—are required (CheckUP, n.d.).
- Initiatives to encourage a new generation of workers that are interested in health and aged care include schools facilitating student work experience with aged care providers and local TAFEs providing aged care and health worker courses close to home.

Providing community programs

- Community-run programs are an opportunity to provide education and early interventions that support physical, mental and social wellbeing, and promote cultural and intergenerational connectedness.
- Locally designed and run programs understand the local health needs and can tailor programs effectively, incorporating holistic and integrated care principles.
- Facilitators for these programs would include locally employed staff, free or subsidised community spaces, training for program co-coordinators and transport.

Exemplar:

The Wug community garden group

This group was created to promote a return to growing and eating local garden food. It also facilitates leadership, with younger men volunteering their time to help older residents. Supported by TSIRC, volunteers work with older residents to manage their gardens. The council provides fertilisers and tools required.

Figure 16: Exemplar 1

Many of the recommended programs incorporate several of the following components.

Physical activity

Engaging in physical activity or exercise, across the life course, is an important component of ageing well.

- Being physically active can help reduce chronic diseases, falls, pain, osteoporosis and memory problems including dementia.
- See above for strategies to engage in physical activity in public spaces.
- Physical activity programs can include a wide range of activities, including strengthening, cardio, balance and flexibility. Finding an activity that is enjoyable is most important.
- Possibilities for programs in the region include walking clubs, running clubs, aerobic classes, water-aerobic classes, gym classes, yoga, tai chi, Pilates, competitive and non-competitive sports, and Island dancing.

Nutrition and diet

Maintaining a healthy, balanced diet is an important component of ageing well.

- A healthy balanced diet of nutrient-rich foods such as fruit and vegetables, whole grains, lean proteins and healthy fats can help reduce chronic diseases, help maintain physical and cognitive functioning and promote healthy ageing.

- Possibilities for programs in the region include cooking classes, nutrition education sessions and recipe cards that provide ideas for using traditional foods in a healthy way.
- Strategies need to consider issues around food security, freight costs and locally produced food.
- Promoting community gardens and other ways of producing foods locally can help to address food security and nutrition issues. This requires infrastructure support such as a council green waste rubbish pick-up service to encourage people to work in their gardens.

Exemplar:

Community gardens and locally produced food by CEQ

CEQ has been working closely with a number of key stakeholder groups in seeking to establish commercial size crop growing, which would create jobs, bring down the cost of fresh produce for locals and improve shelf life owing to reduced transit times. CEQ has also secured funding on behalf of the Arkai (Kubin) community to establish a community garden, and this project is in its establishment phase.

Figure 17: Exemplar 2

Social connectedness

Social isolation in older adults can significantly affect both physical and mental health.

- Those who maintain strong social connections and relationships tend to experience a better QoL, greater satisfaction as they age, a slower progression of dementia and cognitive decline, reduced need for home support and increased independence.
- Social isolation is a risk factor for dementia (Livingston et al., 2024). Staying socially connected can lower the risk of early death by as much as 50% (Holt-Lunstad et al., 2015).

- Recreational programs such as island dancing, music groups, singing groups, bible groups, yarning groups, bingo and community-access groups can foster social connectedness.
- Models elsewhere have shown the benefit of employing a local coordinator to connect people with programs and recreational activities.
- Having health professionals connect patients to community-based activities and services can improve health and wellbeing, address the social determinants of health and promote social inclusion. This is termed ‘social prescribing’ (WHO, 2022).

Cultural engagement

The cultural determinants of health, such as connection to culture and community, are protective factors for ageing well (Department of Health, 2021). Communities highlighted the following:

- Communities that actively preserve and promote Indigenous languages, traditions, ceremonies and customs allow older adults to maintain a strong cultural identity and a sense of belonging, which is essential for mental and emotional wellbeing.
- Communities that uphold the traditional value of respecting Elders empower older adults by recognising their wisdom, experience and role in passing down knowledge. This fosters dignity and a sense of purpose.
- Programs suggested by community groups include men’s groups, involving traditional activities such as making harpoons and spears; women’s groups that include craft classes, cooking classes, sewing and weaving classes; and educational classes on weather, tides, seasonal gardening, teaching history and traditional languages classes.
- Linking with Indigenous Knowledge Centres is a good way of facilitating access and serves as a repository of cultural resources.

Intergenerational activities

Intergenerational programs that bring older and younger generations together facilitate ageing well.

- Intergenerational programs not only support social connectedness, cultural continuity and foster interactions between generations, but they can also improve mental wellbeing, physical activity levels and provide older adults with a sense of purpose and value.
- Communities where older adults are actively involved in teaching younger generations about traditional knowledge, customs and languages foster an environment of mutual respect and knowledge sharing. Intergenerational activities are rewarding and enriching for people of all ages.
- Older adults can share their knowledge, traditions and experiences, while younger generations can assist Elders with new technologies and modern practices.
- Possibilities for programs in the region include aged care clients as well as child day care centres or play groups having shared spaces and activities, mentoring programs, reading programs in schools, shared school library spaces and community volunteering programs.
- Other ideas for programs include parental classes, financial management classes, mental health support programs and the family Wellbeing Program (Tsey & Every, 2000).

Delivering community-responsive aged care services

The Commonwealth Government funds aged care services in different ways, including:

- Flexible care, which provides culturally appropriate care for older Aboriginal and Torres Strait Islander Peoples. It allows people to be cared for close to home and community, with a flexible mix of residential care, day care, respite care and community-based aged care.
- the Commonwealth Home Support Program (CHSP), formerly known as HACC
- Home Care Packages (HCPs)
- multi-purpose health services.

Respite

All the services listed above can support older adults to remain living at home. Community feedback emphasised the need for additional respite in the form of more day respite, overnight respite and cottage-style respite.

The innovative use of funding from these services has helped to improve equity of access to respite in other locations. Examples such as flexible aged care in Mount Isa—Injilinji Aboriginal and Torres Strait Islander Corporation—could be adapted for local implementation.

Exemplar:

Injilinji Aged Care provides Aboriginal and Torres Strait Islander Peoples with high and low care residential services, and community care Aged Care support services.

The Aged Care program commenced in 1998 when Injilinji was contracted by Commonwealth Health to provide a flexible delivery service for frail and aged Indigenous people in Mount Isa. Two components were identified—Community Aged Care Packages and a Residential Aged Care facility. These services are combined to deliver residential care, residential respite and community home care.

Figure 18: Exemplar 3

Meals

The provision of Meals on Wheels for older adults beyond those residing on Thursday Island is problematic. An exploration of alternative ways of supplying meals through school canteens/tuck shops, community volunteer programs and flexible aged care funding is warranted.

Providing carer support

Informal carers provide the majority of care to older Australians, and this unpaid personal care, support and assistance from family or friends is crucial in assisting older people to remain living at home (Quigley, Foster et al., 2021).

- Support for carers is required to enable them to provide that assistance, while maintaining their own health and wellbeing.
- Building carers' capacity to care safely and sustainably at home is vital. Initiatives for supporting carers includes carers' support via a carer's network/support group, carer training and education, access to respite services and the provision of carer resources.
- Ensuring adequate home care support and respite options are available, which delays or prevents the older person going into residential care.

Delivering community education and providing information

Having an understanding of health conditions, specifically around chronic disease and dementia, is vital for communities, services and individuals to address the risk factors and protective factors of those diseases.

- Community-based health literacy programs and a range of resources are required, including the use of creative communication media to promote healthy lifestyle behaviours and messages.
- Information is also required in a range of formats on the initiatives, services, clubs and programs that are available in the region.
- Information hubs within communities have been shown to be successful in providing information to the public around service availability and access.

Exemplar:

The Elder Care Support Program (ECS)

The Apunipima Elder Care Training Support Program are partnering with NPAFACS, Gidgee Healing Mt Isa, PICC Palm Island, Mulungu in Mareeba and Apunipima in Cape York to deliver training to the Elder Care Support program in the northern region.

This program aims to increase workforce capability and capacity in community-controlled aged care support and empower the community-controlled sector to coordinate place-based care needs. The ECS Program achieves these objectives through assisting Elders and older Aboriginal and Torres Strait Islander Peoples and their families to access and navigate aged care services, and by engaging community stakeholders to build workforce capacity within community-controlled settings (including assisting ACCHOs and ACCOs to coordinate care and ensure culturally safe support).

Figure 19: Exemplar 4

8.4 Ageing Well: Strategies for primary healthcare action

Figure 20: Primary Healthcare-Level Action

8.4.1 Aims

- That people of all ages can access health care that is integrated and comprehensive. This includes prevention, treatment and rehabilitation delivered across all settings that supports ageing well across the life course and aligns with cultural values.
- To ensure that older adults are an active partner in their own care. That the care they receive is effective, patient-centred, evidence-based, best practice health care provided within culturally appropriate and holistic conceptual frameworks of social and emotional wellbeing.
- That older adults and their families are supported to navigate health and related care systems. That they are supported to be able to actively manage their health, access information and make informed health decisions.

Ageing well is best supported by living well (Belfrage et al., 2022) and integrated comprehensive Primary Health Care (PHC) is pivotal in the provision of care that supports individuals to live well.

There are different ways of providing health care services in the Torres Strait and NPA. These are:

- State-run Hospital and Health Service, e.g. Torres and Cape Hospital and Health Service.
- Aboriginal Community Controlled Health Organisations, e.g. Torres Health and Northern Peninsula Area Family and Community Services (NPAFACS).

The following section provides fundamental strategies on how individuals can be supported to live and age well by these primary health care services.

8.4.2 Strategies

Prioritising health promotion and chronic disease prevention

- An investment in health promotion and disease prevention, through measures that promote healthy lifestyles and strengths-based initiatives, can significantly improve health and wellbeing, and reduce the burden of disease.
- Initiatives and programs need to take a life-course approach to ageing well.
- Promotion and prevention advice for healthy ageing can be incorporated into all aspects of routine clinical care, from antenatal care through childhood, midlife and into older age.
- Community education is one way to address chronic disease prevention. Suggested strategies for education include PHC-wide monthly-themed focus areas such as ‘Get moving month’ or ‘Dementia awareness month’ whereby there is a whole-of-organisation drive to incorporate related health information of that topic into routine clinical care.
- Increasing rates of completed AHCs that encompass a greater focus on cardiovascular risk assessment, with targeted assessment of diet and physical activity, are an opportunity to focus on preventive health and early detection.
- Validated culturally appropriate screening tools for diet and physical activity can be linked to health service software programs or utilised for screening across primary healthcare settings.

Providing patient and family-centred care

Active involvement in health checks and management plans

- Adults of all ages should be empowered to have meaningful discussions and be involved in decision-making with family and health professionals about their needs and preferences. This requires understanding the health information being delivered.
- Having an IHW involved in clinical encounters with doctors and other clinical staff as part of the AHC and management plans can assist in providing a clear understanding of the information being delivered. It also provides an opportunity for further discussions between the IHW and client, if required, after the clinical

encounter. This can help to resolve any misunderstandings and reiterate any management plans in a more informal and appropriate way.

- Health workers to actively contribute to completing sections of health checks.
- Sufficient time required to conduct quality AHCs that provide evidence-based health information, are holistic and incorporate social and emotional wellbeing, identify patients' goals and priorities, and are linked to a management plan that is specific and relevant to the patient.

Care in the right place

- Conducting screening and assessments and delivering care should be a positive experience that is culturally safe and without barriers to access.
- For older adults, particularly where mobility and transport may pose challenges, providing IHWs with portable devices such as tablets can facilitate screening and assessment in the home or outdoor settings, often a preferred place to the clinic setting.
- Incorporating yarning spaces into PHC centres is also a way of providing culturally safe spaces for sharing and discussing health concerns in a respectful way that can build trust and engagement.

Exemplar:

Outdoor yarning space at Mer PHCC

Figure 21: Exemplar 5

Providing holistic care

Comprehensive assessments

Holistic models of care include greater emphasis on the social and cultural determinants of health. This includes the following:

- Assessments of the social, emotional, mental, cultural and physical domains that are responsive to the needs and priorities of the individual.
- Reorienting care away from the dominant 'disease approach' and focusing on a strengths-based approach that encompasses the wider wellbeing of individuals, families and communities.
- A comprehensive assessment of an older person includes a review of:
    - physical health and medical conditions
    - medications
    - cognition and memory function
    - functional capacity (e.g. ability to complete daily tasks and self-care)
    - mobility, falls risk and foot care
    - frailty
    - nutrition and dental care
    - vision and hearing
    - pain
    - continence
    - mood
    - social engagement and QoL
    - environment and supports available (formal and informal).

AHCs provide an opportunity for quality screening using validated tools. Specific screening for risk factors for chronic disease, dementia and frailty is warranted.

Dental care

Oral health is a key indicator of overall health in older age. Opportunities exist to explore dental care outside of the Torres and Cape Hospital and Health Service through collaborations with the Australian Defence Force's dental services and through JCU via student-led model of care or student placements.

Culturally competent care

To provide culturally acceptable care, healthcare services need to:

- be culturally safe, meaning they are respectful of Indigenous cultures, values, traditions and beliefs, and ensure that services are delivered in a way that is culturally appropriate
- be aware of the impact of colonisation and historical trauma, and provide trauma-informed care
- support holistic and traditional ways of living including healing practices, medicines, languages and foods
- have an adequate Aboriginal and Torres Strait Islander workforce to deliver quality care
- ensure non-Indigenous healthcare professionals are trained in cultural competence to ensure that they are able to communicate effectively with Indigenous patients, reduce stereotypes and provide care that respects cultural identities.

Providing equitable access to care

- Barriers to accessing health care, such as transport, experiences of racism, lack of service provision, remoteness and affordability, are significant in the region and must be addressed to improve health outcomes.
- Adults need to be supported in accessing and navigating systems of care and understanding the range of services available to them.
- Assistance with travel and accommodation costs for individuals and their family members is vital.
- Ensuring a continuum of care for older people, including promotion and prevention, treatment, rehabilitation, palliative and end-of-life care, as well as access to specialised and long-term care options is needed.
- Expansion of the current geriatric outreach model of care to include multidisciplinary gerontological care that delivers services equitably across the region.
- Specifically increased access to dental care, allied health and mental health programs are warranted.

- Increased funding for specialist medical and dental services to deliver services across the region, rather than only being accessible on Thursday Island.
- Use of digital health platforms and decision-making support software into integrated electronic medical records.

Exemplar:

OPEN ARCH

Older Persons Enablement and Rehabilitation for Complex Health Conditions (OPEN ARCH) is a targeted model of care that improves access to specialist assessment and comprehensive care for older persons at risk of functional decline, hospitalisation or institutionalised care. This model allows people to access geriatric services within primary healthcare services, rather than attending a specialist service in a hospital. A care plan is developed between the client, the GP and the geriatrician. Clients also have access to care coordinators who help them navigate the healthcare system to ensure that the care plan is implemented.

Figure 22: Exemplar 6

Providing evidence-based care

- Implementing evidence-based practice drawn from the best available research evidence guarantees that patients receive the most effective and appropriate health care, ensures efficient resource allocation and promotes a culture of continuous quality improvement within healthcare systems.
- Evidence-based practice is crucial for improving health outcomes.
- Following best practice guidelines and high-quality research evidence for health promotion, early prevention and early detection can reduce the risk of preventable chronic diseases and frailty, as well as reduce the risk of diseases such as dementia.
- Ongoing generation and updating of evidence-based knowledge through research is crucial to ensuring that best practice clinical care is delivered.

- The use of culturally safe, strengths-based screening and assessment tools that have been validated with Aboriginal and Torres Strait Islander peoples is best practice.
- Including basic training about geriatric and gerontological issues during training and through ongoing professional development can assist with understanding and accessing the most up to date evidence-based practice.

Addressing dementia and other conditions associated with ageing

Dementia

- Research conducted by HART has shown increased rates of dementia in the region (Russell et al., 2020).
- Cognitive impairment and dementia are not a normal part of ageing.
- Evidence has shown that up to 45% of dementia is potentially preventable (Livingston et al., 2024). Taking a preventative approach involves addressing the risk factors at an early stage in life and continuing throughout the life course (Livingston et al., 2024)
- Interventions include preventing and treating hearing loss, treating vision loss and depression, cognitive stimulation across the life course, smoking cessation, reducing alcohol intake, reducing and treating vascular risk factors (cholesterol, diabetes, obesity and blood pressure), reducing head injuries and promoting physical activity (Livingston et al., 2024).
- Lifestyle behaviour modifications at any stage of life can reduce the risk of dementia. High-quality primary health care across the life course can support brain health, help reduce the risk of cognitive impairment and dementia, and promote ageing well (Belfrage et al., 2022).
- Increased screening of cardiovascular risk and associated risk factors is warranted and is one way to support primary and secondary disease prevention (Belfrage et al., 2022).
- Mild cognitive impairment (MCI) and dementia are underdiagnosed in primary health care; however, timely recognition and management has the potential to delay disease progression (Belfrage et al., 2022). Active case finding includes assessing risk factors; asking questions about memory, thinking and confusion; and using appropriate screening tools.

- Increased screening for cognitive impairment can be incorporated into the AHC (over 55s) using validated tools specifically designed for Aboriginal and Torres Strait Islander Peoples. A version of this tool has been purposely validated for use in the Torres Strait.
- Models of care with multimodal interventions that specifically address the risk factors for dementia known to affect people living in the Torres Strait, and targeting individuals with MCI, are recommended.

Frailty and function

- Frailty is not an inevitable part of ageing, but a state of reduced resilience and reserve capacity across multiple body systems, characterised by a decline in physical, physiological, psychological and social functioning (Australian Frailty Network, 2023; Agency for Clinical Innovation, 2020).
- Frailty is a major health problem, especially in older adults and people living with chronic diseases, and can lead to falls, hospitalisation, worsening mobility, functional dependence, admission to residential care, reduced QoL, depression, cognitive decline, loneliness and death (Australian Frailty Network, 2023; Agency for Clinical Innovation, 2020).
- It is important to identify when a person is frail, or is at risk of becoming frail, through the use of evidence-based screening tools.
- Screening and assessment for frailty should consider a person's physical performance, specifically, gait speed and quality, and muscle loss and weakness; nutritional status, assessing any unintentional weight loss; fatigue levels; and cognition, mental health and health supports, such as resources that protect against negative health outcomes and promote wellbeing (Australian Frailty Network, 2023; Agency for Clinical Innovation, 2020).
- Frailty is closely linked to functional decline, so ADL become difficult (Australian Frailty Network, 2023; Agency for Clinical Innovation, 2020). The early identification of frailty enables targeted interventions to be put in place that can potentially delay or prevent further functional decline and adverse outcomes.
- Building the capacity of staff to recognise frailty and functionality as an indicator of poor health is important through education and continuing professional development.

- Increased screening of function and frailty is warranted, with indicators for identifying decline and associated plans for interventions.
- Increased access to integrated interprofessional teams incorporating allied health and IHWs that can deliver a multidisciplinary home-based and/or community-based falls prevention programmes, as well as Wellness, Reablement and Restorative Care programs, are required.
- Medicare billing and aged care funding can be leveraged to fund services.
- AH professionals play an integral role in assisting older adults to remain independent and functional.

Exemplar:

Top of Australia Project

The Top of Australia Project is an initiative focused on promoting healthy ageing in the Torres Strait through the integration of allied health and nursing students with local community organisations. This project aims to improve the health and wellbeing of elders while providing students with valuable, hands-on experience in a remote, culturally rich setting. Key activities include beach visits, which offer Elders the opportunity to engage with nature, participate in outdoor activities and connect socially, addressing concerns around physical inactivity and its associated health risks. The mobility group and yarning circle provide a safe and enjoyable space for Elders to engage in physical activity, improve strength and balance, and maintain social connections, which in turn promotes independence and confidence. Additionally, carers' groups are facilitated to offer educational and social support to those caring for elders, enhancing community involvement and wellbeing. Through these activities, the project not only supports the physical health of Elders, but also reinforces their cultural roles as knowledge keepers, educators and caregivers, ensuring they remain active and engaged within their communities.

Figure 23: Exemplar 7

Advance Care Planning

- ACP is a process of discussing and documenting plans for future health care to ensure that the patients' values, beliefs and preferences are respected regarding medical treatment and care (Advance Care Planning Australia, 2024; DoHDA, 2025c).
- ACP is important in ensuring that patients receive the care they want, improving ongoing and EOL care, improving satisfaction with care, and reducing anxiety and stress in relation to health care. For healthcare professionals and organisations, it reduces unnecessary transfers to acute care and unwanted treatment (Advance Care Planning Australia, 2024; DoHDA, 2025c).
- ACP with Aboriginal and Torres Strait Islander peoples should empower the person and involve the family and community, where appropriate, in line with a family and community-centred approach.
- Various documents used to complete ACPs include:
    - an Advance Care Directive (ACD): a legal document that outlines the patients' preferences about their future health care.
    - Enduring Power of Attorney (EPOA): a legal document that provides chosen attorney(ies) with the legal authority to act for the patient and make decisions on their behalf.
    - a Statement of Choices: not a legal document but a values-based statement that allows the client to record their values and preferences for health care into the future. An specific Aboriginal and Torres Strait Islander Peoples' statement of choices needs to be developed.
- Discussion regarding ACP can be sensitive owing to cultural protocols, but resources have been produced to assist with starting discussions about an ACP with Aboriginal and Torres Strait Islander Peoples.
- It is important to encourage patients to plan for the future, including discussions around wills, funerals, finances and ACP. Increased discussions on these topics within primary healthcare services are warranted.

Palliative care and End-of-Life care

- Palliative care and EOL care for Aboriginal and Torres Strait Islander Peoples must be culturally safe and responsive, incorporating the social, emotional and

cultural wellbeing of the person, their family and the community (Palliative Care Australia, 2025).

- Talking about death and dying is a culturally sensitive topic. Including appropriate IHWs in discussions is recommended.
- Any information materials and communication about palliative care and EOLcare should be culturally relevant and specific.
- Several resources have been developed for Aboriginal and Torres Strait Islander Peoples.

Utilising the existing workforce to their full potential and working to full scope of practice

Indigenous Health Workers

- IHWs play a vital role in connecting Aboriginal and Torres Strait Islander Peoples to the PHC service.
- IHWs provide a broad range of services within PHC including community engagement, service access, liaison, support and advocacy, cultural support and safety, health promotion and education, and preventative care (Queensland Government, 2021).
- IHWs promote a holistic view of health that encompasses physical, spiritual, emotional and cultural wellbeing, and are therefore critical in addressing health disparities.
- Being able to focus on preventive care and health promotion activities is often forgone in the face of managing high workloads with acute presentations.
- Adequate staffing of IHWs within PHC settings is required to enable IHWs to engage in health promotion and preventative care within the communities.

Nurse practitioners

- NPs have completed specific advanced nursing education and training to be able to diagnose and manage medical conditions (Queensland Government, 2018).
- They are qualified to prescribe certain medications and order diagnostic investigations to support diagnosis and treatment plans (Queensland Government, 2018).

- The role of an NP in remote PHC settings, providing high levels of autonomous clinical care, is invaluable in augmenting the delivery of current clinical services.
- It is recommended that qualified NPs are employed in NP roles across the region. It is also recommended that nursing staff wishing to gain this qualification are supported to do so.

Continuous Quality Improvement Coordinator

- Employment of a CQI coordinator can support health services to continually improve quality care and service for patients and meet accreditation standards (Laycock et al., 2020).

Supporting research

- Research activities contribute and develop the necessary evidence base that can be used to improve patient health outcomes.
- Partnerships and collaborations with universities, healthcare providers, NGOs, Community Controlled Organisations, service providers and aged care providers, along with older adults and their families, can drive localised research to inform an ageing well agenda.
- Research on ageing well should focus on addressing the current needs of older adults, anticipating future challenges, and exploring the social, biological, economic and environmental factors that influence aging well throughout life.
- Research needs to evaluate interventions aimed at improving the trajectory of ageing (WHO, 2020).
- Further research action could include:
    - co-designing and evaluating new models of care and programs to address high rates of dementia and chronic disease in the region
    - co-designing and evaluating programs that support the cultural determinants of health that are protective factors for ageing well.

8.5 Ageing Well: Strategies for individual action

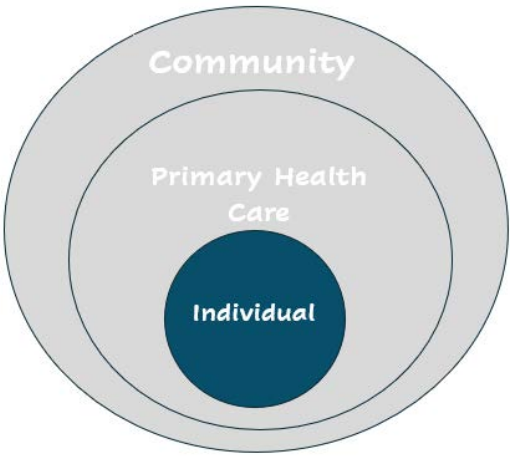


Figure 24: Individual-Level Action

8.5.1 Aim

- To encourage and support older adults to have fulfilling, purposeful and healthy lives.
- To create environments that support healthy choices.
- To provide skills and knowledge that support ageing well.

8.5.2 Strategies

Keep connected

Connections to family, friends and community

- Relationships are central to ageing well.
- Spending time with family can keep individuals strong.
- Intergenerational relationships, where older adults spend time with grandchildren, contribute to the emotional and physical wellbeing of older adults.
- Being with friends can improve social and emotional wellbeing, providing individuals with a feeling of belonging.
- Engaging in community activities helps older adults maintain their social connections, reduces isolation, and provides emotional and practical support.

Connections to culture and traditions

The cultural determinants of health facilitate ageing well.

- Maintaining a strong connection to cultural traditions, language and ceremonies can provide a sense of purpose, belonging and mental wellbeing.
- Passing down knowledge to younger generations enhances self-esteem and can contribute to a sense of pride and fulfilment.

Follow traditional ways of living

Healthy lifestyles

- Regular **physical activity** is linked to better cardiovascular health, mobility, cognition and overall longevity. Participate in regular exercise that is enjoyable, convenient and habitual, and reduce sedentary behaviour. Engaging in traditional physical activities, such as hunting, fishing, gathering or dancing, can improve physical health, mobility and mental wellbeing.
- Following **dietary advice** and limiting alcohol intake are linked to improved health outcomes. A traditional diet of garden food and seafood is a healthy diet. A diet rich in vegetables, fruit and fresh fish, along with portion control supports ageing well.
- Adults who engage in **lifelong learning,** whether through formal education or cultural and community activities, maintain cognitive health and reduce the risk of dementia.
- Being a **non-smoker** improves cardiovascular health and reduces the risk of dementia, as well as many other health benefits. Giving up smoking also helps with decreasing financial burdens. There are many ways to assist with quitting, talk to your health service to access those supports.

Support social and emotional wellbeing

Having strong mental health supports ageing well.

- Participate in self-care activities to reduce stress and worry.
- Feeling valued and maintaining a role within the family and community can enhance self-worth and mental health.

- Spiritual wellbeing and practising faith provides emotional support and a sense of peace, which can contribute to overall health and happiness.
- Keeping busy, motivated and occupied doing the things that make you happy and that have meaning helps with supporting social and emotional wellbeing.
- Access formal mental health and social and emotional wellbeing services when needed.

Harness resilience and coping skills

- Having a positive attitude to life, demonstrating resilience and humour, and being able to adapt to changing circumstances, whether through changes in health, living arrangements, societal changes or community dynamics, supports resilience and wellbeing as people age.
- Allowing older people to do what they value, preserving their purpose, identity and independence supports them to age well.

Show leadership

- Being a good role model and providing leadership supports ageing well.
- Those in leadership roles can facilitate change in the community.
- Individuals of any age can be a good role model by showing respect and displaying cultural values.

Have autonomy

- Having autonomy and agency play a crucial role in helping older adults age well.
- For individuals to take control of their health, make informed decisions and manage their health conditions effectively, individuals need to have health literacy and self-management skills.
- The extent of choice and control available to older adults is influenced by:
    - their physical and mental capacities
    - the environment they live in
    - personal and financial resources available to them
    - available opportunities.

These factors shape autonomy, which has been demonstrated to significantly affect dignity, integrity, freedom and independence, and is a fundamental element of overall wellbeing for older adults (WHO, 2015).

Health literacy

Health literacy is the ability to understand and use health information to make informed decisions about one's health, and to follow instructions for treatment (NSW Government, 2018). Having health literacy:

- enables individuals to understand medical terms, instructions and treatment options, allowing them to follow medical advice correctly, ask the right questions during doctor visits and better manage conditions
- assists individuals to make informed decisions, follow preventive measures, and understand the risks and benefits of treatments
- fosters independence by improving communication with healthcare providers, enhancing confidence in managing health and reducing reliance on others, which can support an individual's emotional wellbeing by alleviating confusion and supporting informed choices about care.

The following strategies can assist individuals to improve their health literacy:

- ask questions and participate in support groups to learn from others with similar health experiences.
- involve IHWs or family members in discussions to help provide additional support and understanding.
- utilise technology and access resources such as reliable online platforms, apps and websites, which can provide trustworthy health information and video tutorials that provide patient-friendly content, or digital tools such as symptom checkers, medication trackers and appointment trackers.

Health services can also assist by:

- understanding the patient's current level of health literacy and customising educational resources to match their understanding and needs

- asking patients to repeat what they have learned in their own words to ensure that they understand the information provided
- providing culturally tailored communication materials including brochures, leaflets or websites with easy-to-read information in simple language. Using clear and simple language that avoids medical jargon
- including visuals to support understanding. Use diagrams, pictures or videos to explain complex medical concepts or treatment plans. Visual aids can help clarify instructions and make them easier to understand
- regularly assessing patients' understanding of their health, medication regimen and treatment plans. This can be done during follow-up visits or through phone calls
- providing continuous support through follow-up calls, reminders, or online portals to reinforce key information and help patients stay on track with their care
- assisting in navigating through the health and aged care systems.

By empowering patients to improve their health literacy, PHC providers foster a more collaborative healthcare experience and support better self-management.

Self-management skills

Having strong self-management skills can assist with the management of chronic conditions.

- Individuals can better monitor their symptoms, adhere to medication schedules and monitor health indicators to detect issues early.
- Knowing how to monitor health indicators (e.g. weight, blood pressure, blood sugars) can help older adults spot the early signs of health issues and seek help before conditions worsen.
- Individuals with self-management skills are more likely to make healthier lifestyle choices, such as exercising, eating balanced meals and avoiding harmful behaviours such as smoking or excessive drinking, which can improve their health outcomes.
- Taking responsibility for one's health can contribute to a sense of accomplishment and control, reduce anxiety and stress, boost confidence and independence, and improve mental wellbeing. Self-management also encourages active engagement

with healthcare providers, including participation in developing and adhering to healthcare plans, leading to improved treatment outcomes.

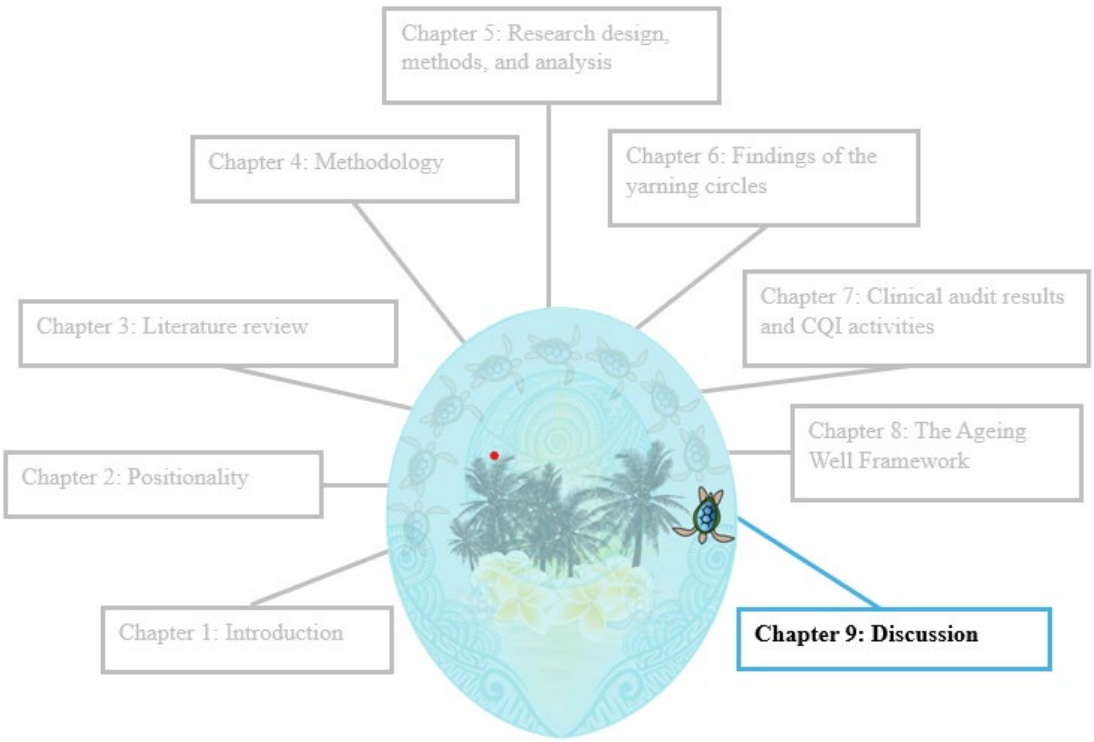
The following strategies can assist individuals to improve their self-management skills:

- Understand your specific health conditions, including medications and treatment regimes. Develop a plan for managing changes in conditions to help with decision-making.
- Work with your healthcare providers to put in place a management plan that suits the individual and set realistic goals.
- Keep track of your health indicators (blood pressure, blood sugars), symptoms and any changes in your condition.
- Develop a daily routine for managing health, including taking medications.
- Use education resources and technology, such as apps that can help track symptoms, medications and appointments.
- Schedule an annual adult health check and have regular check-ups to monitor and adjust plans.
- Finalise ACP, including appointing an EPOA, and have discussions with family around planning for older age and EOL care.
- Celebrate successful achievements.

8.6 Chapter summary

In this chapter, I have presented excerpts from the Ageing Well Framework that were generated through the yarning circles and CQI activities and that relate specifically to my PhD. The guiding principles that underpinned the Ageing Well Framework and directed the development have been outlined. The targeted actions for communities, primary healthcare services and the individual have been presented. This content will be used by HART to finalise the Ageing Well Framework. In the final chapter of this thesis, I discuss the synthesis of the findings from the yarning circles (PAR Cycle One), the clinical audits (PAR Cycle Two) and the CQI activities (PAR Cycle Three). The chapter concludes with the limitations of the research, directions for future research and a closing statement.

Chapter 9: Discussion



9.1 Chapter outline

In this final chapter, I summarise the research, reflecting on the aims and approach taken. The subsequent discussion synthesises findings from the yarning circles, the clinical audits and the CQI initiatives. Recommendations to support ageing well, drawn from PAR Cycles One, Two and Three, have been documented in the Ageing Well Framework in Chapter 8. This chapter concludes with the limitations of the study, directions for future research and a closing statement.

9.2 Reflecting on the research approach and research questions

This PAR study incorporated four PAR cycles to answer the following two questions: (1) What does ageing well mean to Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and Northern Peninsula Area? and (2) How can Aboriginal and Torres Strait Islanders Peoples living in the Torres Strait and Northern Peninsula Area be supported to age well?

To answer these research questions, I co-facilitated 10 yarning circles with 45 participants from across four Torres Strait Island and two NPA communities (PAR Cycle One). I explored what ageing well meant to them, including the concepts, enablers and barriers associated with ageing well. Reflexive thematic analysis was used to analyse the co-generated data, and the metaphor of a wongai tree was used to present the findings. Cycle Two involved developing a healthy ageing screening tool and auditing the clinical health service data of residents aged 18 and over living in the participating communities to establish the current service delivery within the five participating PHCCs. Five PHCCs participated in PAR Cycles Three and Four. Cycle Three utilised the findings from the yarning cycles and the clinical audit to identify and address priorities for the CQI activities. Findings from these cycles were used to develop the Ageing Well Framework (PAR Cycle Four). The following section of this chapter discusses the key findings and critically situates these within the related body of literature.

9.3 The social determinants of health that influence ageing

The WHO Global Commission on the Social Determinants of Health identified that inequities in the conditions in which people are born, live, work and age, driven by inequities in power, money and resources, are continuing to drive mass worldwide health issues (Donkin et al., 2018). Within Australia, inequities in health also demonstrate that the freedom to live long and health lives is not equally distributed (Friel et al., 2020). For the co-researchers in this study, the ability to age well was affected by housing issues, environmental challenges, cost of living, access to transport, food security, and access to culturally appropriate health and aged care services. These findings support the international literature that highlights the impact that the SDoH have on Indigenous ageing (Baron et al., 2020; Brooks-Cleator et al., 2019; Browne et al., 2014; Browne & K.L Braun, 2017; Coombes et al., 2018; Edwards, 2010; Pearse et al., 2016; Pace, 2013; Waters & Gallegos, 2014; Wettasinghe et al., 2020; Yashadhana et al., 2022). Understanding these factors helps contextualise some of the challenges that Aboriginal and Torres Strait Islander Peoples face in their ability to age well in the region. To effectively address these determinants requires a coordinated effort across the whole of government, community and services providers that considers local employment opportunities, housing needs, food security and transport options. This requires a shift from reactive, individualised interventions to more holistic, community-led approaches.

Although these SDoH negatively affect Aboriginal and Torres Strait Islander Peoples, the cultural determinants of health (CDoH) provide protective factors that mitigate this negative exposure (S. M. Finlay et al., 2021).

9.4 The cultural determinants of health that support ageing well

Findings from the yarning circles and CQI activities demonstrate that ageing well, for Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and NPA, is more complex that just achieving good physical health or '*healthy'* ageing. The WHO defines healthy ageing as 'the process of developing and maintaining the functional ability that enables well-being in older age' (WHO, 2015, p. 28). Despite the WHO shifting the narrative from active ageing (WHO, 2002) to a more holistic focus on supporting function (WHO, 2015), this definition fails to incorporate the broader concepts of ageing well that are embedded in the CDoH and expressed by the co-researchers in this study. These concepts are absent from Western paradigms of ageing well models.

The CDoH include Aboriginal and Torres Strait Islanders' ways of knowing, being and doing, which take a strengths-based perspective and embody a holistic approach to health and wellbeing, enhancing resilience and strengthening identity (Department of Health, 2021; S.M. Finlay et al., 2021). These include connection to Country, family, kinship and community; beliefs and knowledge; cultural expression and continuity; language; and self-determination and leadership (Bourke et al., 2018, S. M. Finlay et al., 2021; Salmon et al., 2018). For Aboriginal and Torres Strait Islander Peoples, culture is the foundation for health and wellbeing, and is a protective factor across the life course, mitigating the negative ongoing impacts of colonisation, systemic discrimination and racism, and intergenerational trauma (Bourke et al., 2018; Department of Health, 2021; S. M. Finlay et al., 2021; Jones et al., 2018; Verbunt et al., 2021). It is important to recognise that many Indigenous people globally continue to live through the impacts of colonisation, including what is now widely understood as 'cultural dissonance'. This dissonance stems from the imposition of a dominant hegemonic culture that systematically suppressed Indigenous ways of life, often forcing individuals to disconnect from their cultural identity and practices (Hokowhitu et al., 2020). A growing body of literature not only highlights the broad impacts of colonisation on Indigenous health inequities, but also points to a causal relationship between ill health and what is now termed 'colonial historical trauma and epistemological violence' (Hokowhitu et al., 2020; Mitchell et al., 2019; Paradies, 2016;

Salmon et al., 2018). Increasingly, scholars acknowledge a strong correlation between poor health outcomes among Indigenous people, and the cultural disruption and disconnection that are the enduring legacies of colonisation (Hokowhitu et al., 2020; Hunter et al., 2021; Mitchell et al., 2019; Paradies, 2016; Salmon et al., 2018). Findings from this study are consistent with the literature exploring ageing within Aboriginal communities in Australia, and the way in which the ongoing legacy of colonisation influences the ability to age well (Coombes et al., 2018; McCausland et al., 2023; Radford et al., 2019; Yashadhana et al., 2022).

Despite the negative impact of colonisation, the strengths of culture have continued to evolve and thrive, enhancing resilience, strengthening identity and supporting good health and wellbeing (Arabena, 2020; Department of Health, 2021). However, the importance of culture in supporting health has not always been accepted in Western models of health care or research (S. M. Finlay et al., 2021). Historically, healthcare policy in Australia has focused on medical treatment and the management of illnesses and conditions Department of Health, 2021). Understanding the role that culture plays is an important aspect in any framework that seeks to understand the ageing experience for Aboriginal and Torres Strait Islander Peoples who live in the Torres Strait and NPA. Further, if health inequities are to be addressed and ageing well achieved, an understanding of the importance of culture as a determinant of health needs to progress and be recognised as a significant factor in Indigenous health and wellbeing (Parter et al., 2024).

9.4.1 Cultural connections

The Torres Strait Islander way of life—through connections and relationships to family, friends, community and Island Home—was at the heart of the yarns in this study. Connections to Country, land and nature is a key domain in the definitions of CDoH (Bourke et al., 2018; S. M. Finlay et al., 2021; Salmon et al., 2018). Indigenous people are defined by their connection to Country, which is central to existence (Biles et al., 2024; Kingsley et al., 2013). Connection to Country is increasingly recognised as a central determinant of health for Indigenous people globally, and being physically present on Country has been shown to play a significant role in improving physical health, social and emotional wellbeing, and QoL within the Australian Indigenous context (Biles et al., 2024; Bourke et al., 2018; Salmon et al., 2018; K. Smith et al., 2021; Yashadhana et al., 2023). Reconnection with Country after removal has also been shown to improve health

outcomes for Indigenous people (Jones et al., 2018, Kingsley et al., 2021; Salmon et al., 2018; Yashadhana et al., 2023). Conversely, mental and physical health issues are exacerbated when Indigenous people are denied access, or sovereignty, over traditional lands (Biles et al., 2024; Kingsley et al., 2013). A QoL tool designed specifically for older Aboriginal and Torres Strait Islanders—'The Good Spirit Good Life tool'—includes connection to Country in one of twelve domains that support the QoL of older Indigenous adults (Gilchrist et al., 2025; K. Smith et al., 2021).

For the co-researchers in this study, connection to their Island Home was key to ageing well, while disconnection from traditional lands compromised health and wellbeing. The co-researchers described how being on their land contributed to good health, and for them, ageing well encompassed being able to grow old on their Island Home or community. If they had to move away to access health or aged care services, there was a perceivable decline in physical and socioemotional wellbeing. There is growing evidence to support this finding both within the Australian Aboriginal context (S. K. Jamieson et al., 2025; Radford et al., 2019, McCausland et al., 2023; Yashadhana et al., 2022) and globally (Butcher & Breheny 2016; Lewis et al., 2023; Pace 2020; Rallo et al., 2025). These studies describe how, for Indigenous people, connections to Country positively influence the ageing trajectory, while disconnections from Country adversely affect the ability to age well. Consequently, health, aged and social care services need to be available locally to support individuals to age well on their Island Homes and in their communities. Equitable access to primary health care, social supports and aged care services is essential to improving health outcomes and QoL for Aboriginal and Torres Strait Islander Peoples. In a remote location such as the Torres Strait, this will require innovative ways of integrating and facilitating access to existing services and exploring alternative funding models.

Connections to family, friends and the community were also key to ageing well for the co-researchers. Strong ties to family and community are one domain of the CDoH, in which society is constructed around community, kinship and family (Bourke et al., 2018; S. M. Finlay et al., 2021; Salmon et al., 2018). Strong connections to community have been found to strengthen cultural identity, which provides a safeguard against the impacts of racism, protects mental health, increases self-esteem, promotes resilience and wellbeing, and reduces allostatic load (Dudgeon et al., 2022). The co-researchers

described how connections to the wider community, as part of the Torres Strait Islander way of life, promoted ageing well. These connections with, and contributions to, the wider community kept the participants grounded, gave them a sense of purpose, were a source of joy and provided them with feelings of belonging.

Social connectedness, as a form of integration within community, was associated with ageing well for the co-researchers. Social connectedness has a positive influence on social and emotional wellbeing, physical health and overall longevity (Holt-Lunstad et al., 2015), with social isolation now included in Lancet's risk factors for dementia (Livingston et al., 2024). Social interactions are reported as both an indicator and determinant of wellbeing in Australian Aboriginal and Torres Strait Islander perspectives of general wellbeing (Butler et al., 2019). Social interactions between the co-researchers in this study provided opportunities for both physical and mental simulation. However, for some co-researchers, the separation from family, friends and community had a negative impact on mental health, eliciting feelings of low self-esteem and reduced QoL. The significance of social integration as a positive correlate of successful ageing within global Indigenous populations has been reported (Baron et al., 2019; Butcher & Breheny, 2016; Gallardo-Peralta & Sánchez-Moreno, 2019; Gallardo-Peralta et al., 2022; Gallardo-Peralta et al., 2023; Kim & Lewis, 2024; Lewis, 2014a; McCausland et al., 2023). Consequently, the importance of including social connectedness into frameworks of ageing well warrants greater recognition.

Connections to family and kin were emphasised as fundamental to the Torres Strait Islander way of life and were central to the experience of ageing well. Ageing was not seen as an individual journey, but part of a network of relationships that provided support and fostered wellbeing. The significance of family and kinships to the health and wellbeing of Indigenous Australians is well documented. In a literature review of Aboriginal and Torres Strait Islander People's domains of wellbeing, family was commonly identified as the most important area of wellbeing (Butler et al., 2019). The review emphasised the positive influence of family relationships, which included being a source of support, providing identity and a sense of belonging, and providing kinship structures that reinforced social and cultural exchanges (Butler et al., 2019). Connection to family and friends is also one of the 12 domains that support QoL in older Indigenous adults within Australia (Gilchrist et al., 2025; K. Smith et al., 2021). Specific to the Torres

Strait, Watkin Lui (2012) identified family and kinship connections as having the most significant influence in shaping an awareness of place and home, and fostering a deep a sense of belonging.

For the co-researchers in this study, time spent with family brought joy and emotional strength, contributing significantly to their overall sense of contentment. Grandchildren, in particular, were identified as a vital source of motivation and purpose, offering older people a renewed sense of responsibility and structure, especially through caregiving roles. Additionally, engaging with grandchildren helped keep older adults physically active and mentally engaged, further supporting their wellbeing in later life. Family relationships provided the co-researchers with an identity through their roles and obligations within the family, and gave them the motivation to take care of their own health, so that they could care for other family members. The co-researchers emphasised that ageing well was just being with their family. These findings align with global literature on Indigenous successful ageing that place family relationships as a key determinant of ageing well (Asquith-Heinz et al., 2022; Baron et al., 2020; Browne & K.L Braun, 2017; Lewis 2010, 2013a, 2013b, 2014a, 2014b; Pearse et al., 2016; Waters & Gallegos, 2014; Waugh & Mackenzie, 2011; Wright-St Clair et al., 2017). This key determinant can be utilised in the development of community programs and services to support health. Programs that focus on intergenerational activities and family-centred care are more likely to be adopted and successful.

9.4.2 Cultural expression and continuity

Cultural expression and continuity are described within domains of the CDoH as actions taken to express attitudes, beliefs, customs and norms, including the way in which these are maintained over time (Bourke et al., 2018; S. M. Finlay et al., 2021; Salmon et al., 2108). Similarly to disconnection from Country, disruption to cultural practices has been shown to be detrimental to wellbeing for Aboriginal and Torres Strait Islander Peoples (Biles et al., 2024). Conversely, practicing culture has been shown to benefit individuals through the strengthening of identity, countering the impacts of colonisation, improving mental and physical health, and improving QoL, as well as ensuring the prosperity and wellbeing of the community, and strengthening connections (Biles et al., 2024; Gallardo-Peralta et al., 2019; C. Gibson, Dudgeon & Crockett et al., 2020; Gilchrist et al., 2025; Hunter et al., 2021; Salmon et al., 2018).

For the co-researchers in this study, living the Torres Strait Islander identity through practicing cultural activities and traditions supported the ability to age well. Participation in cultural events such as island dancing, feasting, craft and woodwork provided the co-researchers with the means to gain and share knowledge; provided opportunities to enact community norms, such as demonstrating respect for older adults; promoted leadership and community role models; and enabled social and family connections. When the co-researchers identified that cultural practices were being diluted or disrupted, there was an associated loss of direction for the younger generations and a weakening of community and family connections. The importance of culture as a determinant of ageing well has been identified both within an Australian Aboriginal context (Coombes et al., 2018; S. K. Jamieson et al., 2025; McCausland et al., 2023; Pearse et al., 2016; Radford et al., 2019; Waugh & Mackenzie, 2011; Yashadhana et al., 2022) and across Indigenous populations globally (Asquith-Heinz et al., 2022; Gallardo-Peralta & Sánchez-Moreno, 2019; Garcia et al., 2024; Lewis, 2014b; Pace, 2020; Kim & Lewis, 2024; Kim et al., 2025; Lewis, 2014b; Lewis et al., 2023; Listener et al., 2023; Silan & Munkejord, 2023; Slater et al., 2022; Wortman & Lewis, 2021). As a fundamental aspect of the social and emotional health and wellbeing of Aboriginal and Torres Strait Islander Peoples, culture should be routinely included as part of holistic care (Salmon et al., 2018). The strength of cultural activities should be harnessed in the design and implementation of community programs and health services that seek to improve health and wellbeing. Moreover, health programs that incorporate traditional ways of exercising and being physical, and promote traditional food and recipes, are likely to have more traction, leading to adherence, than implementing mainstream health promotion programs.

Cultural changes and sustaining cultural continuity were a significant part of the yarning circle findings. For many co-researchers, competing influences existed between the appeal of Western and global popular cultures, and traditional lifestyles. Traditional lifestyles, however, were viewed as ways of living that supported health and longevity. The co-researchers spoke at length about the ‘olden days’, a time when their parents, grandparents and great grandparents lived a simple life. This life was described as hard but satisfying. People were less materialistic and acquired objects only if they were needed, rather than desired. The way of life was very physical in that it required hard manual labour to collect fuel (firewood), hunt, gather, prepare and cook food, and to move between communities. The co-researchers described how this hard physical work

contributed to long and healthy lives. The traditional diet was also emphasised as contributing to good health and longevity. Garden-grown food and freshly caught seafood were described as healthier and more satisfying than modern day processed, store-bought food. This change in traditional lifestyle behaviours is not unique to the Torres Strait and NPA. Globally, the literature on Indigenous ageing has highlighted the same shift in lifestyle, with comparable impacts on health outcomes (Boyd, 2018; Browne et al., 2014; Coombes et al., 2018; Hopkins et al., 2007; Lewis, 2010, 2011, 2013a; Pace, 2020). Despite the sometimes negative influences of Western society, the co-researchers reflected on how important it was for cultural traditions to be integrated into modern culture—to find a balance between contemporary Western societal demands (the business of living) and traditional, cultural activities. Some internal tensions were identified around how to incorporate modern technologies, such as the use of smartphones, in ways that remained respectful of, and consistent with, traditional practices. A similar divergence of views has been reported within other Australian Indigenous communities: some see digital technologies and the internet as valuable tools for empowerment, communication and cultural preservation, while others regard them as potential threats to the survival and integrity of Indigenous identities and traditions. These differing perspectives are deeply shaped by the enduring legacy of colonialism and the ongoing struggle of Indigenous people to safeguard their cultural heritage, autonomy and dignity (Butler et al., 2019; Sianturi et al., 2023).

The erosion of traditional values, including respect for elders, was another concern discussed by the co-researchers in this study. Respect for the older generation is a core value within the Torres Strait way of life, where traditional Elders are revered and their contribution to community is honoured (Whap, 2001). However, some co-researchers felt that respect for older adults from the younger generations had waned, which may be partly attributed to fewer cultural activities being practiced. In the ‘olden days’, there was an expectation that you listened, and paid respect, to older adults, whereas in today’s changing society, the younger generation are less inclined to listen to the words and wisdom of their Elders or listen to what their parents are asking of them. The concept of loss of respect for older generations has been reported in both Australian and international studies on ageing perspectives. These studies attributed this shift in attitudes to the influences of social media and modern culture (Baron et al., 2020; C. Gibson, Dudgeon & Crockett, et al., 2020; Waugh & Mackenzie, 2011; Wolsko et al., 2006). When older

co-researchers in this study felt respected, it led to a sense of satisfaction, worth and emotional wellbeing. Promoting intergenerational activities and community social interactions are ways of strengthening the relationships between the older and younger generations within the community, providing a means for instilling traditional values, especially respectfulness (Lewis, Kim, Asquith-Heinz & Withrow, 2024; Warburton & Chambers, 2007).

9.4.3 Transmission of traditional knowledge and language

The transmission of traditional knowledge is not only educational, but also deeply spiritual and emotional, ensuring cultural survival across generations. Learning and sharing knowledge contributes to cultural identity, and fosters family and community connections (C. Gibson, Dudgeon & Crockett, et al., 2020). This theme aligns with 'Indigenous beliefs and knowledge' and 'Indigenous language' in the CDoH (Bourke et al., 2018; S. M. Finlay et al., 2021; Salmon et al., 2108). Traditional knowledge includes knowledge of philosophy and the way of living; the land, sea, wind and nature; hunting and migratory patterns; weather and navigation systems; survival skills; traditional healing, medicines and counselling; family and kinship relationships; language; traditions and ceremonies; and the system of lore (law) and values (Salmon et al., 2018; Whap, 2001). From a Torres Strait perspective, Indigenous knowledge is the most powerful aspect of culture and is shared to benefit others. Without knowledge, heritage, traditions, customs, identity and lifestyles are lost (Whap, 2001).

For the co-researchers in this study, passing on knowledge, tradition, cultural practices and languages to the younger generations supported ageing well. The sharing of knowledge was mutually beneficial. For those that were teaching, pleasure was gained from knowing they were advancing cultural continuity, and it gave the co-researchers a sense of purpose and fulfilment. For those learning, receiving knowledge was associated with gratitude and thankfulness. The importance of passing on traditional knowledge and maintaining traditional languages, as a determinant of ageing well for Indigenous Peoples, has been identified both within Australia (Coombes et al., 2018; McCausland et al., 2023; Warburton & McLaughlin, 2007; Yashadhana et al., 2022) and globally (Baron et al., 2020; Baskin & Davey, 2015; Browne & K.L Braun, 2017; Boyd, 2018; Edwards, 2010; Hopkins et al., 2007; Huang & K.L. Braun, 2025; Lewis, 2011; Pace & Grenier, 2017; Quigley, Russell et al., 2022). The development and implementation of programs

to harness Elders' knowledge, wisdom and languages, to increase both individual and community wellness, is warranted (Busija et al., 2020).

9.4.4 Indigenous leadership

Strong leadership within communities has been shown to have significant positive outcomes for individuals and their communities (Salmon et al., 2018). 'Self-determination and leadership' are outlined in the domains of the CDoH (Bourke et al., 2018; S. M. Finlay et al., 2021; Salmon et al., 2108. Leadership is demonstrated not only by Elders who have well-documented roles in relation to cultural maintenance and knowledge transmission (Huang & K. L Braun, 2025; Warburton & Chambers, 2007; Warburton & McLaughlin, 2007), but also by the younger generation, who can be developed and supported to drive change (Salmon et al., 2018). Leadership roles have been seen to strengthen cultural affiliations, provide a sense of purpose, elicit feelings of being needed and respected, and instil a sense of pride in older Indigenous adults. Further, cultural leadership provides a platform to advocate for Indigenous voices and strengthen community cohesiveness (Baskin & Davey, 2015; Boyd, 2018; Edwards, 2010; Lewis, 2011; McCausland et al., 2023; Quigley et al., 2022; Salmon et al., 2018).

Strong leadership was a significant determinant of ageing well for the co-researchers in this study. Leadership roles were seen to provide mentorship, as well as setting a moral compass and contributing to structure within the community. Strong leaders were able to advocate within, and for, community to facilitate change. Being a good role model was not dependent on age, but on personal qualities of respect, responsibility and a commitment to serve the community as a whole. The value of leadership and role models is significant when considering programs and services to support ageing well. Having community members involved in the design of programs, and local Aboriginal and Torres Strait Islanders implementing the programs, is required to ensure that the CDoH are central in health and wellbeing programs, and that the needs and priorities of the community are forefront. Moreover, community programs that build leadership skills and capacity building around decision-making are warranted. The sociocultural aspects of the roles of leaders in Indigenous communities suggests differing values and priorities with regard to ageing well when compared with those of mainstream frameworks, and these differences need to be actioned in policy and service delivery (Yashadhana et al., 2022).

9.4.5 A holistic, collective approach to ageing well

Indigenous perspectives on health and wellbeing are holistic and multidimensional, encompassing physical, emotional, mental, cultural and spiritual wellbeing. These approaches are deeply rooted in Indigenous worldviews and the cultural practices that promote balance and harmony within the individual and the community (Butler et al., 2019; Salmon et al., 2018). A holistic and collective approach to ageing is therefore grounded in Indigenous knowledge systems and relational worldviews, where wellbeing is shaped by balance, reciprocity and generativity. This contrasts with a Western biomedical construct, which is both individualistic and focused on the biological processes involved with illness (Butler et al., 2019; Garvey et al., 2021; Salmon et al., 2018). This holistic concept aligns within the CDoH as part of the broad concept of 'Indigenous beliefs' (Bourke et al., 2018; S. M. Finlay et al., 2021; Salmon et al., 2018).

Holistic views of ageing well

The *National Aboriginal and Torres Strait Islander Health Plan 2021–2031* states that 'Aboriginal health means not just the physical wellbeing of an individual but refers to the social, emotional and cultural wellbeing of the whole Community in which each individual is able to achieve their full potential as a human being, thereby bringing about the total wellbeing of their Community' (Department of Health, 2021, p. 18). For the co-researchers in this study, living a healthy lifestyle reflected a holistic approach to ageing well. Socioemotional wellbeing, physical activity, diet and spirituality were all important. When these factors were in a positive balance, health flourished and the co-researchers could age well. When any one of those factors were negatively affected, health and the ability to age well were hindered. Findings from this study are consistent with the literature on global Indigenous ageing, which concluded that it was a combination of factors across mental, physical, spiritual and emotional realms that supported a person to age well (Boyd, 2018; Lewis, 2010, 2013a; Pace, 2013, 2020; Quigley et al., 2022).

A collective approach to ageing well

From Indigenous perspectives, community is viewed as an extension of family, and there is a collective approach to ageing well, where the health of the whole community is prioritised over the health of an individual (Biles et al., 2024; Pace & Grenier, 2017; Quigley et al., 2022). This contrasts with the Western model of successful ageing that

places an emphasis on an individual's attainments (Rowe & Kahn, 1997). Older adults are not perceived as separate to the community but as integral members, whose knowledge, presence and wisdom contribute to collective wellbeing. This collective responsibility ensures that ageing is not seen as a period of decline, but as a stage of life rich with contribution, purpose and respect. The values of reciprocity and social consciousness are instrumental in these practices, ensuring that ageing is a shared journey supported by the collective strength of the community. The overall success of the community reflects on an individuals' perception of how well they have aged (Quigley, Russell et al., 2022).

Programs and services that incorporate the wider domains of wellbeing, and that are rooted in specific cultural values, beliefs and ways of knowing have been shown to foster positive health outcomes (Butler et al., 2019; Hunter et al., 2021; Salmon et al., 2018). Aboriginal Community Controlled Health Organisations (ACCHOs) that are operated and governed by the local community deliver holistic, strengths-based, comprehensive and culturally safe primary health care (Department of Health 2021; Salmon et al., 2018). ACCHOs operate with the values of a culture-centric, collective and holistic approach to health care, and have been shown to deliver up to 50% more health gains or benefit than mainstream primary health services (Department of Health 2021; S. M. Finlay et al., 2021; Kingsley et al., 2021). It is recognised that ACCHOs are crucial in tackling the health gaps, and a shift in funding from mainstream services is required to enable increased care provision, along with a respect for how these organisations shape their services (Salmon et al., 2018). Specific to aged care services, the Royal Commission into Aged Care Quality and Safety in Australia recommended the prioritisation of ACCHOs as providers of integrated aged care services (Australian Government, 2021). A holistic approach to ageing well that traverses both health and aged care services is needed in the design of effective policies, programs and support for the growing cohort of ageing Aboriginal and Torres Strait Islander Peoples in the Torres Strait and NPA.

9.5 Personal characteristics that support ageing well

Personal characteristics significantly influence the capacity of Indigenous peoples to age well, particularly when situated within the broader sociocultural and historical contexts that shape Indigenous ageing experiences. Individual traits such as resilience, adaptability, humour, cultural pride, positive attitude and agency are often central to

healthy ageing outcomes among Indigenous populations (Quigley, Russell et al., 2022). Resilience has been identified as a key determinant of ageing well in Indigenous populations (Athira et al., 2024; Baskin & Davey, 2015; Boyd, 2018; Browne et al., 2009; Edwards, 2010; Grandbois & Sanders, 2009, 2012; Gallardo-Peralta et al., 2022; Pace & Grenier, 2017). This resilience comes from a lifetime of navigating the impacts of colonisation, racism, marginalisation and systemic inequities. Other traits such as demonstrating a positive attitude (Boyd, 2018; Collings 2001; Edwards, 2010; Laditka et al., 2009; Lewis, 2010, 2011, 2013b; Pace 2013, 2020; Pearse et al., 2016; Wettasinghe et al., 2020) and displaying humour (Baskin & Davey, 2015; Boyd, 2018; Edwards, 2010; Pace, 2013) have been shown to influence the ageing trajectory. For the co-researchers in this study, personal attributes such as resilience, positive attitudes, personal motivation, staying occupied and doing the things that they enjoyed counterbalanced adversities in life and promoted ageing well. Also of significance was the conscious decision to take responsibility for one's own health and make the lifestyle choices that are needed to age well. The desire to make positive changes is one to be capitalised on in health promotion and the management of chronic disease. Ensuring that individuals have the information to make informed decisions, the health literacy skills to understand the health messaging and the self-management skills to address chronic disease is paramount. Further, programs that are inclusive of activities that are meaningful and enjoyable to individuals are more likely to be engaged with. Also of note is an opportunity for community programs to focus on building individuals' resilience and agency, which can provide long-term health gains.

9.6 Primary health care to support ageing well

9.6.1 Chronic disease management

Preventable chronic diseases are the leading cause of the higher rates of poor health and premature death in Aboriginal and Torres Strait Islander Peoples in Australia, with cardiovascular disease (CVD) accounting for one-fifth of the discrepancy in these rates (J. Bailie et al., 2017; O. Gibson et al., 2015; Matthews et al., 2017). Findings from the HAAT demonstrated high rates of chronic disease, with over 50% of the 55 years and older age group suffering from three or more chronic diseases, and 20% with CVD. Despite these high rates, only 7% of the total sample had documented evidence of a CVR assessment being carried out within the previous two years. However, in addition to

addressing the SDoH, effective CVD prevention—through regular screening and early intervention—can play a critical role in reducing the health disparities and disease burden experienced by Indigenous populations (Matthews et al., 2017). Studies elsewhere have documented that CVR assessments within Indigenous primary care are low (Matthews et al., 2017; Peiris et al., 2009; Vasant et al., 2016). These studies highlighted the lack of contributory individual risk factor documentation, such as smoking status, which is required to calculate CVR. This is consistent with data from the HAAT in this study, where documentation regarding smoking status, alcohol use and physical activity levels were very low. Having automated CVR calculators embedded into the PHC service's electronic patient record software is one way of increasing CVR assessments (Matthews et al., 2017; Vasant et al., 2016). In addition, incorporating a CVR assessment into the AHC or standalone rebates as part of the MBS could also promote increased uptake (Matthews et al., 2017). In addition, the low rates of documented smoking and alcohol use status in the HAAT is a lost opportunity to address smoking and excessive alcohol consumption in primary care. Significant funding exists for tackling smoking initiatives within Indigenous populations in Australia (Matthews et al., 2017), and these could be leveraged to address smoking; however, the first step is to ascertain the smoking status of clients.

In a low number of cases where a CVR assessment had been completed, and where the scores necessitated an HSR (as per clinical guidelines), only 63% of cases had a documented response. Associated with this finding was the low number of completed GPMPs and TCAs that were billed and, in this study, used a proxy measure for service utilisation. The lack of follow-up to chronic disease and elevated CVR scores has been documented in other studies that examined the rates of CVR assessments in Indigenous PHC. Those studies highlighted that a lack of follow-up was due to a focus on acute care within the PHC service, staff capacity, a lack of adherence to guidelines and the challenge of maintaining a continuity of care (Matthews et al., 2017). Within the Torres Strait and NPA, the increased involvement of IHWs with capacity (time and skills) in chronic disease management discussion and care plan development is warranted to address this shortfall. The increased inclusion of IHWs into an interdisciplinary team approach to chronic disease management also provides an opportunity to addresses the wider SDoH and CDoH that influence lifestyle behaviours (Conway et al., 2017; Jongen et al., 2019; Schmidt et al., 2016).

Completing a CVR assessment is only one small contributor to the overall management of chronic disease. A systematic review of the barriers and enablers associated with the implementation of interventions aimed at improving chronic disease care for Indigenous Peoples within a PHC setting found that (1) the design and planning phase of interventions was important, requiring partnering with Indigenous communities to design the implementation, employing local people as health workers, planning for sufficient workforce and exploring multiple funding sources; (2) the chronic disease workforce was essential, requiring staff to have chronic disease training and development, including IHWs in decision-making, and having dedicated chronic disease management positions; (3) the patient/provider relationship was key, requiring the inclusion of patients in their own care and providing information that is understood by the patient; (4) clinical care pathways are imperative, requiring seamless referral pathways and having knowledge of available services to refer to; and (5) access to care was important, including providing coordinated care, focusing on family-centred care, employing IHWs and providing culturally safe work practices (O. Gibson et al., 2015). These are important factors for PHC in the region to consider.

The HAAT results indicated low levels of AH involvement within the participating PHCCs. AH clinicians are recognised as being part of an effective model of chronic disease management (Brown et al., 2025; M. Foster et al., 2013), and this is reinforced by the WHO (2008). They play a critical role in the prevention, early intervention, rehabilitation and treatment of chronic disease, where the early identification of risk factors and preventative interventions are crucial in reducing the long-term burden of chronic disease. Increased AH rebate claims could assist with the costs associated with employing AH within the region. A recent initiative on Waiben (the central health hub of the Torres Strait) is an AH, student-led health program initiated through James Cook University. Although not specifically targeted at chronic disease management, it aims to improve the health and wellbeing of older adults, while providing AH students with valuable, hands-on experience in a remote, culturally rich setting. Key activities for participants include the opportunity to engage with nature, participate in outdoor activities and connect socially, addressing concerns around physical inactivity and its associated health risks. The mobility group provides a safe and enjoyable space for older adults to engage in physical activity, improve strength and balance, and maintain social connections, which in turn promotes independence and confidence. This program has

considered innovative approaches to attracting more AH clinicians to the region in a cost-effective way. The model has previously been delivered in the Aboriginal communities of Cape York and demonstrated culturally responsive practice that addressed community, preventative and primary care needs (Cairns et al., 2024). Expanding on this model of care across the wider Torres Strait and NPA region is warranted. A review by Brown et al. (2025) investigating PHC service delivery found a range of AH models of care within rural and remote settings within Australia that improved access to services to address health inequities. However, the authors highlighted the lack of rigorous evaluation of the studies included in the review.

A significant finding from the HAAT was the low numbers of screening for physical activity and weight management. Only 28% of the total sample had been screened or assessed for levels of physical activity, and no specific routine screening or assessment specific to obesity or nutrition was documented. This is despite physical inactivity and obesity being known risk factors for chronic disease (WHO, 2024b). The WHO stated that greater investment into screening, detecting and treating chronic diseases, and their risk factors, is critical, and high-impact interventions that can be delivered through primary care need to be implemented (WHO, 2024b). In the HAAT, of those screened for physical activity, concerns were raised about physical inactivity for 37% of cases. These figures align with the national data. A 2018–2019 Australian health survey reported that only 12% of Indigenous adults met the weekly physical activity guidelines (National Indigenous Australians Agency [NIAA], 2024). Therefore, increased screening of physical activity and interventions to address physical inactivity are warranted within the Torres Strait and NPA region. Physical activity programs that include traditional activities and cultural practices are indicated to improve adherence and enjoyability. Further, at a community level, collective interventions rather than individually focused interventions are likely to be more applicable and valid.

With regard to screening for diet and obesity, no validated tool was used in the participating PHCCs that assessed diet based on the national dietary intake guidelines. Questions regarding diet within the AHC included ‘What did the person eat yesterday?’, with response options ‘Adequate/Poor’, and ‘How many meals were eaten yesterday?’, with response options ‘2–3/less than 2 or more than 3’. These sections of the AHC were not always completed. Of the total sample, 15% had seen a dietician, and therefore a

comprehensive diet and nutritional assessment had been completed. However, dietitian shortages within the Torres and Cape Hospital and Health Service (TCHHS) meant that only clients deemed Category 1 are eligible to access a dietitian. Preventative care is not deemed Category 1. Similar to physical inactivity, obesity is also an area of concern, with 71% of Aboriginal and Torres Strait Islander People aged 15 and over having a BMI rated in the overweight or obese range in the 2018–2019 health survey (NIAA, 2024). Equally important is the consideration of the nutritional composition of diets, where AIHW data found that Aboriginal and Torres Strait Islanders are not meeting the national guidelines on fruit and vegetable intake (NIAA, 2024). However, food security plays a contributing factor to nutritional intake, with the co-researchers in the yarning circles identifying food cost and availability as significant reasons for eating less healthily. Increased screening of dietary behaviour is needed within the Torres Strait and NPA, using culturally validated screening tools. Community-led interventions that include traditional ways of producing food (community gardens), and traditional recipes and cooking classes are one way of targeting obesity, poor nutrition and food insecurity.

9.6.2 Adult Health Checks to support ageing well

Medicare-funded Indigenous-specific AHCs were introduced in 1999, with the intention of detecting risk factors and chronic diseases, and addressing preventive health (J. Bailie et al., 2017; Schütze et al., 2016; Spurling et al., 2017). In this study, the HAAT identified low rates of screening (both through the AHC and through clinical contact) for chronic disease risk factors, as well as for other problems associated with ageing, such as incontinence, pain, falls, osteoporosis, mood, polypharmacy, vision impairment and hearing impairment. A major priority identified by PHCC staff to address in the CQI activities (PAR Cyle three) was in relation to the AHC and screening for the problems associated with ageing. Several issues were identified, such as inconsistency in templates, the absence of clinically driven outcomes, frailty and functional and cognitive decline not being flagged, limited IHW involvement in decision-making, superficiality of assessment and screening, a lack of culturally appropriate validated screening tools with low completion rates, and a biomedical focus with little to no acknowledgement of the SDoH or CDoH. Similar issues have been previously identified in other Indigenous PHC services, with questions raised about the evidence base for some of the item inclusions

and their limitations in the lack of both SDoH and CDoH, patient-identified issues and perceptions of their superficiality (J. Bailie et al., 2017; Spurling et al., 2017).

Despite these limitations, Indigenous-specific health assessments are associated with the improved uptake of some preventive health practices (J. Bailie et al., 2017). However, consistent with national data of Indigenous Peoples (Schütze et al., 2016, Hyde et al., 2025), this study found low AHC completion rates, with only 18% of the under 55 age group and 26% of the over 55 age group having undertaken a completed AHC within the previous 12 months. This is slightly lower than national available data indicating that 38% of those aged 55 and above had an AHC in 2017–18, with these numbers remaining comparable to the 2020–21 data (Hyde et al., 2025). Consequently, the AHC is a missed opportunity for increased screening using culturally appropriate tools, the increased involvement of clients in targeted management plans, and the input of IHWs into screening, as well as management plan development and implementation.

9.6.3 Billing services for raising revenue

The HAAT audit revealed low numbers of billing claims for AHCs, GPMPs and the review of those plans. There was no evidence of billing claims for IHWs or NPs, and limited billing for AH. These findings indicate a missed opportunity for the health services to raise revenue. Specifically, PHCs can enhance revenue by leveraging the work of nurses, IHWs and AH professionals to both complete most of the GPMPs and TCAs, and access additional MBS items, particularly within the chronic disease management framework (DoH, 2013). Eligible patients with chronic conditions can receive up to five individual AH services per calendar year, as recommended by a GP under a GPMP or TCA. These services encompass a range of disciplines, including IHW, physiotherapy, podiatry, dietetics and psychology, and are reimbursed through specific MBS item numbers 10950–10970. Additionally, follow-up services such as phone consultations are reimbursed under item 93203, contingent on alignment with the patient's care plan. Further, multidisciplinary case conferences involving AH professionals are supported by MBS items 10955, 10957 and 10959, facilitating coordinated care for patients with complex needs (DoH, 2013). By integrating these services into care delivery, and ensuring subsequent claiming, PHC service providers can optimise their MBS billing, thereby increasing practice revenue. This extra revenue can then be utilised to expand services and ultimately provide improved patient care (DoH, 2022).

9.6.4 Cognitive functioning with regard to ageing well

Dementia was a key concern that was frequently discussed in the yarning circles. Within the Torres Strait and NPA, there is a growing community awareness of dementia, along with an increased willingness to discuss the risk factors, treatment and the impact of the disease on the person with dementia and their carers. Research conducted by HART has found that there are increased rates of both dementia and MCI in the Torres Strait and NPA (Russell et al., 2020), and that over one-third of dementia in the region is potentially modifiable (Thompson et al., 2023). The identification and management of risk factors can prevent or delay onset (Belfrage et al., 2022). For these reasons, both addressing dementia risk and conducting cognitive screening is of paramount importance.

Many of the risk factors for dementia are the same as those for midlife chronic disease risk, as outlined in Chapter 7. Therefore, increased screening for smoking, excessive alcohol intake, physical activity and obesity are equally relevant when screening for dementia. The screening of vision and hearing impairment within the AHC is also of importance, since these are also risk factors for dementia (Livingston et al., 2024). However, the HAAT identified very low rates of screening for vision and hearing. Only 4% of the sample had undergone a hearing screen within the previous 12 months, and 33% had undertaken a vison screen. This finding supports previous research that found that routine eye and vision assessments for Aboriginal and Torres Strait Islander adults attending PHCCs are not at the recommended levels (Burnett et al., 2016). As well as being risk factors for dementia, vision and hearing were shown to be areas of concern in a longitudinal follow-up of healthy ageing in an Indigenous cohort in the Kimberley (Hyde et al., 2025). The authors recommended increased screening of vision and hearing through the AHC to address the vision and hearing issues that were affecting healthy ageing.

The diagnosis of dementia requires evidence of cognitive impairment, functional decline, corroboration by informants, a change from a previous level of cognitive functioning and the exclusion of reversible causes (Belfrage et al., 2022). Best practice evidence recommends that the detection of cognitive impairment is through (1) symptoms or concerns raised, and (2) identifying those at high risk and/or asking questions about memory and thinking and/or use of a cognitive screening tool (Belfrage et al., 2022). The results of the HAAT indicated that only 19% of the 45 years and over age group (total

sample was 474 clients) had undergone a cognitive screen within the last 12 months. These included 33 clients being asked memory questions as part of the AHC, 5 clients being asked questions about memory and thinking during clinical consultations with the GP (excluding the AHC), and 59 clients being administered a screening tool, most of which were conducted by the visiting geriatric specialist team, rather than the PHCC staff (GP, IHW or AH clinician).

These results raise several areas of concern. First, there is a disparity between the prevalence of dementia in the region (30% of the sample in the dementia prevalence study across the Torres Strait and NPA having cognitive impairment; Russell et al., 2020) and the rates of screening within PHC. Increased screening of cognitive impairment is recommended both through active case finding and cognitive screening in the over 55 years AHC. Active case finding includes assessing an individual's risk factors, asking questions about memory, thinking and confusion, and using cognitive screening tools. In consideration of the prevalence of dementia within Aboriginal and Torres Strait Islander populations, case finding should be considered from the age of 50 years (Belfrage et al., 2022). A further concern was the type of screening tool used. Several validated cognitive screening tools are available for use within PHC. However, the Kimberley Indigenous Cognitive Assessment (KICA-cog; LoGiudice et al., 2006) is the only validated tool designed specifically for Aboriginal and Torres Strait Islander populations. The tool has since been adapted and validated for Torres Strait Islander Peoples by HART (Russell et al., 2024). The HAAT identified that the most frequently used cognitive screening tool within the PHCCs was the Mini-Mental State Examination (MMSE; Folstein et al., 1975). The MMSE was designed for use in Western psychiatric in-patient settings in the United States of America and has not been validated within Indigenous populations (Wiggins & Price, 2021). To address this concern, as part of the CQI activities, staff requested training in using the KICA-cog, which was completed, and each PHCC has been supplied with KICA kits that contain the items required to conduct the screen (comb, matches, cup, bottle, pictures). In addition, the *Best-practice guide to cognitive impairment and dementia care for Aboriginal and Torres Strait Islander people attending primary care* (Belfrage et al., 2022) was circulated and discussed with PHCC staff.

Concurrently with this research, the templates for the AHC were updated. The updated AHC for adults aged 50 and over included new questions and follow-up instructions about

memory and thinking, intended to check brain health, and screen for cognitive impairment and dementia. As part of the CQI activities, the new RACGP template was incorporated into Best Practice™ to be used as part of the AHC (RACGP, 2019). The IHWs working on Kirriri Island set a CQI goal for increasing the number of AHCs completed, ensuring that a cognitive screen was completed as part of that, and had a 50% increase in AHCs competed over the course of PAR Cycle Three. This work still continues around the AHC template across the region as a whole.

Another area identified through the CQI in relation to dementia was the need for increased dementia education and training within both the PHCC and the wider community. A low awareness of dementia has been identified as a key contributor to poorer outcomes for older Aboriginal and Torres Strait Islander People (T. Cox et al., 2019; NeuRA, n.d.). A dementia knowledge survey conducted with Aboriginal and Torres Strait Islanders found minimal knowledge of risk factors, the importance of early diagnosis and the effects on QoL and life expectancy (T. Cox et al., 2019). Some of the CQI activities included organising dementia training for both staff and community, and as part of the wider HART activities, a podcast was developed (see the preliminary page in this thesis) that included episodes on dementia risk reduction, understanding dementia, getting a diagnosis and supporting carers. Further work by HART that overlaps with the CQI activities is the development of dementia training modules specifically designed for PHCC staff.

9.6.5 Socioemotional wellbeing with regard to ageing well

The importance of socioemotional wellbeing (SEWB) as a determinant of ageing well was an overriding theme across both the yarning circles and CQI workshops. Moreover, depression is a risk factor for dementia across all populations (Livingston et al., 2024). The HAAT identified several areas of concern in relation to SEWB, which were identified by PHCC staff as priorities to be addressed in the CQI. Documented screening for mood was low, with less than 20% of the sample being screened for mood, either through the use of a screening tool or through questions being asked during clinical contact. Several different tools, and several different versions of the same tool, were being used to screen for depression and anxiety as part of the AHC. Having so many versions was confusing, especially around the interpretation of results. Staff identified that none of the tools were relevant for identifying more culturally centred domains of SEWB, and they also lacked

consideration of social isolation (another risk factor for dementia). Staff also identified that sitting in a busy clinical space, and being pressured for time, was a hindrance to being able to conduct a sensitive screen of SEWB.

Assessing SEWB within Indigenous populations is complex and challenging, exacerbated by the lack of culturally appropriate and validated assessment tools (Janca et al., 2015). Many depression and anxiety screening tools developed using the Western biomedical paradigm are still being used with Aboriginal and Torres Strait Islander Peoples, and these tools fail to capture an Indigenous worldview of SEWB and the broader domain of culture that influences wellbeing (Meldrum et al., 2024). A screening tool developed specifically for the Aboriginal population in Western Australia to screen SEWB has been developed (Janca et al., 2015); however, no tool has been developed for the Torres Strait Islander population. As part of the broader scope of HART work, a culturally appropriate screening tool for SEWB has been developed and is currently being validated. The tool takes a yarning approach to the screening of depression and anxiety (Meldrum et al., 2024). As part of the CQI activities, some of the PHCC staff are participating in the validation, since this was an area in which they were keen to see improvements. It is anticipated that once the tool has been validated, it will be rolled out with training within the PHCCs to replace some of the current tools being utilised. Initiatives to include yarning spaces into new builds within the PHCC are being taken up, and staff are being provided with mobile tablets to be able to conduct screening in settings outside the busy clinical areas within the PHCCs. Providing safe spaces for yarning improves culturally safe care, which is important because culturally unsafe PHC environments are recognised as a barrier to care access for Aboriginal and Torres Strait Islander Peoples (J. Bailie et al., 2017; De Zilva et al., 2022).

9.7 CQI as a tool for supporting ageing well within PHC

The use of CQI as a method for identifying gaps in preventative screening, improving the delivery of AHCs, increasing follow-ups to abnormal results, and improving the delivery of best practice care and evidence-based health promotion within Indigenous PHC is well documented in the CQI literature (C. Bailie et al., 2016; J. Bailie et al., 2019; J. Bailie et al., 2017; Percival et al., 2016). In this study, staff from within the PHCCs identified several key possibilities for improving care that included (1) the need for better screening for chronic disease risk factors and dementia risk factors, using culturally validated

screening tools; (2) increased inclusion of the wider interdisciplinary team (IHWs, AH, NPs) into care planning and assessment; (3) increased client participation in decision-making around their care with increased support from IHWs; (4) increased consideration and screening for other problems associated with ageing, along with flags to identify a decline in function, cognition and frailty; (5) increased consideration of the SDoH and the CDoH into the AHCs, including social engagement; and (6) increased education and training specifically around dementia for staff and community. However, several factors were identified as barriers to fully implementing many of the initiatives. These included the competing demands on staff to manage acute presentations, staff shortages, high staff turnover, locum staff only in the PHCC for a short amount of time (days or weeks), minimal GP engagement with the process and blockages by executive decision-makers. These findings align with CQI literature that identified similar challenges to implementation (Bailie et al., 2007; Diaz et al., 2019; Gardner et al., 2010). The facilitators of implementation in this study included one of the PHCCs having a stable workforce with strong clinical leadership and a strong team coherence, which drove many of the initiatives, ensured an appreciation of directly translatable goals into clinical activity, and provided data specific to their own PHCC that could be used for both business planning and identifying gaps in service delivery. These findings support previous findings of CQI facilitators (Gardner et al., 2010, 2011; Hengel et al., 2018).

Another finding resulting from the CQI was that many of the goals and priorities identified by staff sat outside the scope of the health service. These included the lack of public transport, affecting the older adults being able to access social groups, independently shop and access the community; a lack of intergenerational, recreational and physical activity programs to refer on to; and a lack of support for carers, including respite options. The identification of these gaps reinforces how ageing well intersects with health care, as well as the SDoH and CDoH. A multi-stakeholder collaborative approach is required to support individuals to age well.

9.8 Limitations

Several limitations should be noted in the conduct of this study. The yarning circles were only held in three of the five island clusters. Given the diversity across the region, the findings may not represent perspectives from other Torres Strait communities, although many of the co-researchers were from, or had strong family connections with, other island

communities. The recruitment methods used for the yarning circles, such as flyers placed on community boards, might have selected more socially engaged people. The co-researchers who participated in the yarning circles were those who were interested in talking about their health and wellbeing, and were proactive in wanting to make changes. In addition, those that participated in the yarning circles were physically able to leave their homes to attend; I did not get perspectives from those older adults that were house-bound or residing in the RACF based on Waiben. Therefore, caution should be taken in generalising the results.

I am also aware that I am a white Australian co-leading the research, and that this may have affected the co-researchers' willingness to participate, and be open and forthcoming, in the yarning circles. However, the yarning circles were co-facilitated with Torres Strait Islander team members, which provided reassurance to the co-researchers and addressed, to some extent, this limitation. Further, the longstanding engagement resulting from the previous clinical and research work I had been, and continue to be, involved in provided evidence of genuineness and trust, and this was reflected in the large number of community members that attended the yarning circles, and on one occasion, in very wet weather.

With regard to the clinical audits, the results were dependent on data that were documented in the electronic record, which could have underestimated actual service delivery. This underestimate of actual service delivery has been highlighted as a limitation in other CQI implementation studies (C. Bailie et al., 2016; Bailie et al., 2017; Larkins et al., 2016). Records were only audited if there had been clinical contact by the client within the health service within the previous 12 months, which could have excluded clients that are less engaged with their health care, and therefore have differing health profiles. Within Bamaga, it could have also excluded those sourcing some, or varying degrees, of their health care from the local ACCHO, and again, this would have affected the audit findings. The HAAT tool I developed, although based on existing best practice guidelines, was not tested for reliability nor validity.

An organisation's ability to conduct CQI activities is influenced by its workforce, leadership and management support (Bailie et al., 2017; Diaz et al., 2019; Gardner et al., 2010; Larkins et al., 2016). These factors change as staff, funding and organisational priorities change. The ability to complete CQI activities was influenced by staff turnover,

a focus on acute care and staff shortages within most of the PHCCs. The ability to complete some of the CQI priorities was also hindered by a lack of support at an executive level. All activities (except the rates of completed AHCs) were not re-audited as a marker to assess CQI success, which is a limitation on assessing the success of CQI activities. However, since most activity outcomes were not captured by the audit data, or are still ongoing, a re-audit would not have provided useful data to assess CQI success for the purpose of this study.

9.9 Future directions for research

The yarning circles provided insights into what ageing well means for the Aboriginal and Torres Strait Islanders that were living on their Island Homes and in their communities. Many Torres Strait Islander Peoples have left their communities and are now living in urban locations. Exploring differences in ageing well within this cohort could expand on this body of knowledge by examining the differences in ageing experiences. Different barriers and enablers are likely to exist within a different geographical, social and environmental context.

Given the high rates of chronic disease experienced by Aboriginal and Torres Strait Islander Peoples living in the region, an ongoing focus on increasing the evidence base in relation to ways to address these high rates is needed. Co-designing, implementing, and evaluating health promotion and chronic disease prevention programs is recommended. In addition, given the high rates of cognitive impairment and high rates of dementia risk factors identified, along with the desire for dementia education, the implementation of models of care to address risk factors for dementia and provide education is also recommended.

The ongoing development of culturally appropriate screening and assessment tools for all domains of health and wellbeing is crucial to accurately identifying issues that are specific to this population, and that take into consideration Indigenous worldviews of health and wellbeing. Tools that are merely adapted from Western tools are not sufficient.

Programs and services that include the CDoH should be co-designed, implemented and evaluated. Specifically, a consideration of programs that include intergenerational activities, and that take into account social interactions and social isolation is needed. It

is imperative to grow the evidence base on how those CDoH affect health, wellbeing and ageing.

9.10 Concluding statement

To understand what ageing well means to Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and NPA, and to ascertain how they could be supported to age well within their communities, I explored the individual, relational, medical and cultural components of health, wellbeing and their impacts on ageing, from the perspective of individuals, as well as through evidence from the health service and PHCC staff. The importance of culture came through strongly in the yarns and within the CQI activities. Culture is central to the health and wellbeing of Aboriginal and Torres Strait Islander Peoples, and despite Indigenous communities' longstanding recognition that practising, maintaining and reclaiming culture is essential for wellbeing, Western science continues to dismiss this knowledge as anecdotal, disregarding its significant role in influencing individuals, communities and societies (S. M. Finlay et al., 2021). Mainstream health approaches often overlook cultural determinants as key factors. Unlike the SDoH, the CDoH are not as evident in the development of health frameworks, and this has led to an underestimation of their value in providing health benefits (Verbunt et al., 2021). Current frameworks, which focus predominantly on biomedical determinants, fail to capture the complex, layered influences on health, particularly the vital role of culture (Biles et al., 2024; S. M. Finlay et al., 2021; Gibson, Dudgeon & Crockett, 2020; Jones et al., 2018). This was evident in this study. Some co-researchers linked their experiences and perceptions of ageing well to medical determinants and the SDoH, but greater emphasis was placed on the importance of CDoH. Culture was a strength when practiced, but where culture had been disrupted, a detrimental impact on ageing resulted.

Although there is a growing demand to implement CDoH into health frameworks, deep-seated resistance persists, rooted in systemic institutional racism embedded within organisational structures and practices in mainstream organisations that continue to marginalise culture in the design and delivery of health initiatives (Biles et al., 2024; Parter et al., 2024). To have a meaningful integration of the CDoH into health policy and practice requires policy analysis, research and service design, and delivery to extend biomedical models, and recognise and respect Indigenous culture as a social dimension of Aboriginal and Torres Strait Islander Peoples' lives. The racialised health systems

upholding this inequity also need to be critically challenged (Arabena, 2020; Biles et al., 2024; S. M. Finlay et al., 2021; Parter et al., 2024; Verbunt et al., 2021). In taking a participatory approach, the voices of the co-researchers were central to the development of the framework that was inclusive of the cultural dimensions expressed in the yarning and CQI activities. Working with the PHC service did, at times, highlight the notion of resistance by some non-Indigenous staff members in positions of authority.

In conclusion, the aim of this PAR study was to explore what ageing well means to Aboriginal and Torres Strait Islander Peoples living in the Torres Strait and NPA, and to determine how they could be supported to age well within their communities. This was a request from communities. The findings broaden the evidence available in the field of global Indigenous ageing to provide a current understanding of Torres Strait Islander Peoples' knowledge and perception of ageing well, and an understanding of how the CDoH are suited within this worldview. The PAR approach was specifically chosen to have a direct research translation of outcomes into practice. The Ageing Well Framework provides recommendations for strategies and actions that can be used by communities, health services and individuals to enhance the QoL of older adults and facilitate ageing well.

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Appendices

Appendix A

Additional published works relevant to the thesis

Rural and Remote Health rrh.org.au
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PERSONAL VIEW

Community involvement to maximise research success in Torres Strait Islander populations: more than just ticking the boxes

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ABSTRACT:

Context: Health research is important to effectively address the health disparities between Indigenous and non-Indigenous Australians. However, research within Aboriginal and Torres Strait Islander communities has not always been conducted ethically or with tangible benefits to those involved. Justifiably then, people may be reticent to welcome researchers into their communities. Genuine commitment to community consultation, the fostering of partnerships and collaborative approaches maximise successful outcomes and research translation in these communities.

Issue: Despite guidelines existing to try to ensure the needs of Aboriginal and Torres Strait Islanders are met through any research involving them, non-Indigenous researchers may not be fully aware of the complexities involved in applying these guidelines. This article explores how a team of Indigenous and non-Indigenous researchers understood and applied the guidelines during a 3-year dementia prevalence study in the Torres Strait. Their reflections on the practicalities involved in conducting ethically sound and culturally appropriate research are discussed.

Lessons learned: Having a deep understanding of the ethical principles of research with Torres Strait communities is more than just 'ticking the boxes' on ethics approvals. Genuine community involvement is paramount in conducting research with the communities and only then will research be relevant to community needs, culturally appropriate and facilitate the translation of knowledge into practice.

Keywords:

Australia, community engagement, dementia, health research, Indigenous, Torres Strait.

FULL ARTICLE:

Context

Aboriginal and Torres Strait Islander peoples experience more complex health issues, significantly higher rates of chronic disease and lower life expectancy than the general population[1]. Addressing these health inequities therefore remains a vital area of health research. Quality health research has the potential to contribute to improvements in health care by adding to the knowledge base on disease prevalence, risk and protective factors, effectiveness of treatment or public health interventions, and healthcare costs and use[2]. However, health research within Aboriginal and Torres Strait Islander communities has not always brought tangible benefits to research participants[3]. Justifiably, Aboriginal and Torres Strait Islander peoples may be sceptical about the value of research, particularly in relation to the health and social changes that the research promises[3-5]. The extent to which research is seen as valuable depends on its nature, quantity, quality and the translational outcomes[3].

To ensure health research is conducted in a culturally appropriate and ethical manner and has tangible research benefits, funding bodies such as the National Health and Medical Research Council (NHMRC) and research ethic committees require researchers to demonstrate that their research within Aboriginal and Torres Strait Islander populations conforms to ethics standards[6]. Other guidelines and frameworks have been developed in consultation with Indigenous stakeholders to ensure that the needs of Aboriginal and Torres Strait Islander communities are met, with each having its own research principles. In addition to the NHMRC guidelines[6] and its accompanying document, *Keeping research on track II*[7], the most common guidelines for Indigenous health research include *Guidelines for ethical research in Australian Indigenous studies*[8]; *The NHMRC Road Map, a strategic framework for improving Aboriginal and Torres Strait Islander health through research* (Road Map I, II & III)[9-11]; and *Aboriginal Health and Medical Research Council of New South Wales Guidelines for Research into Aboriginal Health: key principles*[12].

Issue

For non-Indigenous researchers working with Aboriginal and Torres Strait Islander communities, applying these guidelines may seem daunting, and putting them into practice can be challenging[13-15]. There is often little appreciation of what is involved, the time needed, and an understanding of how important it is to ensure processes are thought through. A failure to grasp the requirements runs the risk of researchers just 'ticking the boxes' on applications and grants without fully understanding the complexities of ethical research. Researchers need to have a good understanding of what these guidelines mean and how they can be implemented practically, if they are to truly incorporate them into their research. According to Harrison, in Laycock et al 'The ethics application is what researchers focus on, when really ethics are so much more - they are the foundations of the research' (p. 30)[16]. Without deep understanding and a genuine desire to conform to these core values, non-Indigenous researchers run the risk of conducting unethical and culturally inappropriate research. Historically, researchers have been criticised (often legitimately)[16,17] for placing their own interests and career advancement above the benefit to the communities involved. While there are many motivations for research that are often well intentioned, it is imperative that community ownership and benefit to the community are at the forefront of any research conducted.

Health equity for Aboriginal and Torres Strait Islander peoples is more likely to be achieved through improved research processes and ethics frameworks to keep researchers accountable[2]. Few studies report the processes used to conduct successful and appropriate research within Indigenous communities[17], and the majority of publications[13,17-19] concentrate on Aboriginal and not Torres Strait Islander communities. The aim of this article is to outline how the Healthy Ageing Research Team (HART) conducted a research study with Torres Strait Island communities. A reflection of experiences as Indigenous and non-Indigenous researchers in

applying ethical approaches to our research is presented, incorporating the practice of reflexivity and the valuable lessons learnt along the way.

The research team

HART is a team of clinician researchers in Far North Queensland, Australia who have been providing clinical aged-care services across the Torres Strait for over 20 years. The team members who conducted this research comprised a Torres Strait Islander Health Worker, an Aboriginal senior medical officer, and three non-Indigenous clinicians (geriatrician, neuropsychologist and physiotherapist).

The research context

In 2015, HART was awarded NHMRC funding to conduct a 3-year dementia prevalence study across Torres Strait communities. Dementia is a National Health Priority in recognition that it is a growing public health issue with significant social, medical and financial implications[20]. The number of people diagnosed with dementia in Australia is expected to increase dramatically over the next few decades to about one million by 2058[21]. Accurate prevalence figures are therefore critical for future planning and provision of appropriate care for people with dementia and their carers. Dementia research is even more urgent for Aboriginal and Torres Strait Islander communities, where rates of dementia are three to five times higher than the general population[22-24].

Outcomes of the research are reported elsewhere[24]. However, many lessons were learned along the way in conducting ethical research, and sharing HART's experiences may provide guidance to prospective researchers.

Ethics approval

The study received ethics approval from the Far North Queensland Human Ethics Research Committee (HREC/13/QCH/129 - 878) and James Cook University (H5495).

Lessons learned

Establishment of respectful partnerships

Building of relationships is the first step outlined in *Keeping research on track II*[7]. The importance of maintaining a relationship through the whole research journey, meeting appropriate representatives and key local people, following community protocols, as well as demonstration of researcher skills and experience, are emphasised. For HART, building relationships occurred over many years and was crucial to the success of the study. Despite being located in Cairns, some 800 km south of the Torres Strait, members of HART have been providing clinical services to the ageing Torres Strait population for over 20 years. This has led to a close working partnership with the Post-acute, Rehabilitation and Aged Care service based on Thursday Island and with the Aged Care Assessment Team in the Torres Strait. These relationships have been maintained and strengthened over time.

Ongoing commitment to providing specialist clinical services in a remote region fostered trust and facilitated rapport with local healthcare teams. However, on reflection HART realised that the intermittent nature of a fly in, fly out service delivery model was insufficient to develop a wider understanding of the community, their issues, health priorities and culture. HART recognised the importance of being involved in community activities and learning about the history, protocols and culture of the communities across the region. To address this, HART became more involved in local activities such as the annual health expo, visited local museums and cultural centres, engaged in and presented education sessions with local groups such as Rotary as well as the health service, and over several years formed relationships with other key community members, aged care groups and the councils.

Identifying the health issue

Keeping research on track II describes the importance of Aboriginal and Torres Strait Islander peoples being involved to shape the research idea and ensuring the research addresses community priorities and aspirations. For HART, the development of local partnerships and fostering of relationships provided opportunities to listen to community concerns regarding the health of their older adults. This engagement was with health and aged care staff, patients, and the wider community. Consultations ranged from formal community meetings, participation in forums and community radio, engagement with associations such as Rotary, and informally with chats over morning tea. Concerns were raised and issues identified around dementia awareness, diagnosis and available treatment, and supports for both the patient and family. These discussions formed research priorities, as identified by the community. However, HART was mindful to be honest in meeting community expectations and not to make commitments that could not be fulfilled. Funding would be needed to conduct effective research into the prevalence of dementia and other issues of ageing. Nevertheless, agreement was reached to embark on a process of collaboration to design, implement and evaluate a small pilot study[22], whilst seeking funding for a larger research study.

Research design

Another step in *Keeping research on track II* is about developing the project and seeking agreement. This section of the guide emphasises the importance of a research agreement, letters of support and finalising a research plan that includes regular updates to participants and communities. For the HART research study a steering committee of local community and council members, Indigenous researchers and Indigenous health care workers was established prior to commencement. The committee met regularly and provided input into study design, advised on protocols, and facilitated access to community decision-makers. Through the steering committee, the team applied reflective listening, allowing the collective expertise of the Aboriginal and Torres Strait Islander members to guide the research, ensuring validity and appropriateness.

Feedback obtained from the steering committee and participants of the pilot study was incorporated into the design of the larger

study. Part of the feedback received from a meeting of Torres Strait Islander Councillors was that the larger study should include all populated islands rather than the selected communities initially proposed. Planning of the larger research took time and involved extensive discussions with a range of Torres Strait community members. A joint approach was taken to develop the research design through informal and formal meetings with key stakeholders across the wider community, ideas were developed over several months and were based on acceptability to the community rather than fitting into a funding model.

Keeping research on track II highlights the importance of research that has Aboriginal and Torres Strait Islander peoples leading, or being members of, the research team. For this study, the local Torres Strait Islander aged care health worker joined the HART team as a co-researcher. A mutual learning-teaching relationship was developed around respectful protocols and she provided the team with cultural guidance. At times non-Indigenous team members made mistakes such as being unaware of cultural titles, not providing enough time to participants who desired more information, not fully understanding the importance or significance of some cultural festivities, not seeking correct permission from the appropriate person for such things as photography of the Island; and, on occasion, presuming our non-Indigenous viewpoint was acceptable. For example, while developing a healthy ageing resource in the form of a calendar, photographs including shots of sunsets to represent the beauty of the Torres Strait were chosen until informed that a sunset represents the end of life. Given the negative message this would convey, which was at odds with the aim, the photos were replaced with more acceptable pictures.

Research implementation

In recognition of communities' experience of a power imbalance with research, in additional to formal ethics approvals HART obtained permission from each individual community about when, where and even if the study was to go ahead in that community. Providing adequate time to negotiate participation was critical and underestimated by the team - this consultation process took months. HART approached the engagement process by providing information to key stakeholders on individual islands by email and phone, followed by a community visit to introduce the research team in person. This strategy gave the community several opportunities to raise concerns, ask questions and clarify expectations. Several visits were sometimes required to form relationships and gain trust, with the study only going ahead when the community were willing to participate. HART was mindful that the communities may have perceived a power imbalance, as it was the specialist geriatric service negotiating participation. Health centres were reassured that a decision not to participate would not impact on future health service provision, that each health centre would determine what level of involvement they wanted, and timelines for data collection would be set by the health centre.

Respecting the needs of communities' own timelines and priorities, such as 'sad news' and community events, was paramount. This was challenging for the non-Indigenous team members, and recognising they were not the only service visiting the health centres was an initial learning. Within busy health centres, research was seldom seen as a high priority, and the team needed to work around the health centres' and community's needs rather than research needs, even if that meant arranging, then re-arranging, visits. Promoting community control and ownership of the research in this way required deliberate work from us.

As all Torres Strait communities were invited to participate in the research, in recognition of the diversity of the region it was important to know different community's protocols. Some communities required prior registration and a sign-in at the council offices on arrival. Having a Torres Strait Islander co-researcher on the team was fundamental to research success. When visiting a new community, it was respectful to have her make introductions and explain about the team and the research. Being introduced by someone known and trusted by the local community, and able to vouch for the team's integrity, facilitated access to community elders, community groups and health service staff. Understanding community protocols and the rights of Aboriginal and Torres Strait Islanders to have their culture and values respected is clearly outlined in *Keeping research on track II*.

Data collection

On reflection, HART realised that time spent being involved in community activities was as important as completing the research activities. Being invited to attend community meetings or cultural events was recognised to be a privilege that should be prioritised over research schedules. On occasion, visits were changed due to unanticipated events within the community. In this way, HART maintained a flexible and community-driven approach in terms of scheduling, location, and audience. For example, a Seniors Day education session was cancelled at the last minute, so the team presented to primary school children instead. The children engaged well, showed they were very knowledgeable about dementia, and happily accepted the resources provided.

The research location was important and it was necessary to gauge which location suited each community. On some islands, participants enjoyed gathering at local health centres, while on other islands local community halls were preferred. Overwhelmingly, sitting under a tree or on the beach was favoured over sitting in an air-conditioned office.

Food is central to Torres Strait Islander culture[25] and played a fundamental role in engagement with health staff and participants. A significant lesson and a cornerstone event changed how the research process was viewed and accepted. HART was aware of the protocol of reciprocity concerning the sharing of food[26] and were surprised when store-bought cakes and drinks offered after participation in the study were frequently declined. The Torres Strait Islander team member highlighted the importance of how morning tea was offered and how this impacted on community acceptance. As providing store-bought cake after the study may have been perceived as patronising and a reward for participation, the protocol for offering food was changed. A table was set with a tablecloth and fresh flowers, home-made cakes and fresh fruit

were provided, and participants were invited to eat and yarn with the team before participating. This broke down barriers, as recipes were exchanged, conversations flowed, discussions on healthy diets and ageing followed, and trust and rapport formed. Although there was no obligation to stay and participate, most people stayed afterwards for more cake and yarning. Word spread around the community and more participants attended to join in the social activity and participate in the research.

Another lesson learned was that a time-orientated approach could be offensive - clock-watching and ending an interview before a client was ready was extremely rude[26]. Providing adequate time to value participants' responses and allowing them time to talk was prioritised. As part of the reflexivity practice, a debrief with the Torres Strait Islander team member was completed at the end of each day in the field to discuss issues or concerns raised and to ensure any feedback from the participants was passed on with their permission.

Capacity building

Sustainable capacity building must be factored into timelines and budgets of research projects. During research trips, HART provided training and education to build local capacity beyond the life of the project. Focused training was conducted for local health and aged care workers on cognitive screening tools and dementia management strategies, carer workshops, were held, and community education sessions on dementia and healthy ageing were provided. Local aged care champions committed to furthering local knowledge and providing ongoing advice and support to individual communities were enlisted. These champions have become invaluable in sustaining momentum locally.

Feedback of findings and translational outcomes

HART recognised that in order to feedback results in a meaningful way, information had to be provided in forms that was useful and accessible. This aligns with recommendations from *Keeping research on track II* that findings are prepared in a clear statement that everybody can understand, and presented to community meetings so feedback relevant to the analysis can be obtained. For HART, this meant providing informal feedback to councillors, with a formal written report also provided. The health service, at executive and local levels, were also provided with formalised results and findings. Other feedback included informal talks with community groups such as Rotary and using media outlets, community radio, and *The Torres News* newspaper. Community forums were held in participating communities along with morning tea, allowing time for discussion of findings, implications and future directions. These facilitated discussions around the 'where to now?' and how the findings could be used for tangible outcomes. Communities overwhelmingly wanted the results to improve ageing of their older adults. Consequently, further work by HART is underway to develop a framework for healthy ageing in the Torres Strait.

Insider perspectives

Reflecting on the research journey and learning from experience is the concluding step of *Keeping research on track II*. As well as regular team debriefings, where the team reflected on the process and the effectiveness of the research, the Aboriginal and Torres Strait Islander HART members shared their insider perspectives. From the perspective of the Torres Strait Islander team member, joining the research team required significant consideration including ensuring that the research would be ethically and culturally appropriate. Her role, navigating both community sentiment and research priorities, often made her feel she had 'legs in both camps'. It was important to her that the research did not adversely affect her relationship, trust and standing within her community. This was demonstrated when sensitive topics around depression and suicidality were raised, which caused discomfort for some. As an insider, she understood that this topic was unsuitable and, as part of the team debrief, highlighted the inappropriateness of this, suggesting more suitable alternatives. Another part of her role was ensuring issues raised by community members were passed on, and acted on, by the team. She ensured that the community understood the benefits of the research and answered their questions and reassured them, thereby 'vouching' for the team.

The perspectives of the Aboriginal team member were different again - he felt he had 'a leg in three camps'. He was mindful of the protocols of a different culture while representing his own culture and world view in these communities as well as balancing a researcher role and working with non-Indigenous researchers.

Conclusion

Insights into approaches that were found valuable in conducting research in the Torres Strait have been presented together with a reflection on practice including successes and mistakes. HART experiences have been compared to the recommendations made through *Keeping research on track II*, and specific examples of how these recommendations can be implemented have been provided. Effective involvement with the communities prior to any research commencing, throughout the research and after the research concludes, ensures an understanding of community priorities and how these can be addressed.

Non-Indigenous researchers need to focus on building relationships and community participation throughout their project[27,28], as well as facilitating the development and integration of Aboriginal and Torres Strait Islander researchers onto the research team. Evidence shows that collaborative research with issues identified by the community achieve more successful outcomes[7,29]. By genuine community involvement, research is relevant to local needs, facilitates the translation of knowledge into practice, is culturally appropriate and recognises the cultural diversity of the communities involved. Developing both effective community partnerships and fostering genuine involvement may seem daunting to new researchers unsure of how to engage successfully in these communities. These reflections may assist other researchers to understand the importance of understanding ethical principles rather than just 'ticking the boxes'.

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Research Article

Following in Elders' Footsteps: Yarning About Ageing Well in the Torres Strait

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Abstract

There is a growing body of literature around ageing well for Indigenous Peoples internationally. However, the perspectives of Torres Strait Islander Peoples, one of two First Nations groups in Australia, have not been documented. This qualitative study aims to explore what ageing well means to people living in the Torres Strait and Northern Peninsula Area (NPA) of Australia. Ten yarning circles were conducted with 45 participants from four island and five NPA communities across the region. Reflexive thematic analysis was used to identify seven themes of ageing well. A metaphor of a wongai tree—an endemic Torres Strait region tree—was used to describe those findings. The roots were used to represent the Torres Strait Islander way of life. The trunk represented practicing Torres Strait Islander identity. The branches represented a holistic approach to living a healthy lifestyle. The leaves represented strong leadership and role models. The fruit depicted passing on knowledge, tradition, and cultural practices. A cyclone, an adverse event, represented the challenges to ageing well, with the regrowth representing strong sustained life. Findings highlighted the importance of the cultural determinants of health, which significantly contribute to ageing well. These cultural determinants must be considered when addressing the health of First Nations Peoples, and as such, First Nations voices must be central in the design and implementation of practices and policies that affect them.

Keywords

First Nations; Torres Strait; ageing well; cultural determinants of health; yarning

Introduction

Around the world, people—including Indigenous Peoples—are living longer (WHO, 2018). By 2050, the World Health Organization (WHO) estimates that the number of people aged 80 years and over will be more than 426 million—triple the number in this age group in 2020 (WHO, 2018). However, increased longevity does not always equate to prolonged good health (WHO, 2015). How well we age can, in part, be attributed to the cumulative impact of health inequities across the lifespan. Inequities can be specifically linked to physical or social environments, but can also result from barriers that affect opportunities, decisions, and behaviors (Sadana et al., 2016; WHO, 2015). Sadana et al.'s (2016) work, highlighting the impact of inequities and how they shape the health trajectory into older age, informed the WHO World Report on Ageing and Health (WHO, 2015). Findings emphasized the social determinants of health (SDoH) affect ageing in several ways, including in the prenatal period and early childhood, where socioeconomic influences have direct or indirect latent impacts; through the cumulative health impact of social and economic disadvantage or discrimination over the life course; and intergenerational transmission of health inequities (Sadana et al., 2016).

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Aboriginal and Torres Strait Islander Peoples are the two distinct First Nations Peoples of Australia. As with all ageing populations, Aboriginal and Torres Strait Islander Peoples seek to age well by remaining active, healthy, and independent for as long as possible (Department of Health, 2021). Health inequities are significant for First Nations Peoples, who have been negatively affected by the ongoing impacts of colonization and systemic discrimination for over two centuries. In addition to the SDoH, the Cultural Determinants of Health (CDoH) provide protective factors that mitigate this negative exposure for First Nations People (Department of Health, 2021; Finlay et al., 2020). The CDoH include First Nations Peoples' ways of knowing, being, and doing that embody a holistic approach to health and well-being, enhancing resilience and strengthening identity (Department of Health, 2021; Finlay et al., 2020). They include connection to Country, family, kinship, and community; beliefs and knowledge; cultural expression and continuity; language; self-determination; and leadership (Bourke et al., 2018; Finlay et al., 2020).

In order to live long and healthy lives, First Nations Peoples must be at the center of designing appropriate health and social care services that support them to age well. The design of these services needs to incorporate First Nations Peoples' world views, as the holders of cultural knowledge and practice, and must reflect the CDoH (Finlay et al., 2020), and thus merely adapting services that have been designed for and by other populations is inadequate (Finlay et al., 2020). Developing appropriate health and social care services that support ageing well can only be achieved if perceptions of, and priorities for, ageing well are voiced, acknowledged, and embedded into policy and programs (Department of Health, 2021; Quigley et al., 2022).

Globally, the perceptions of what Indigenous Peoples consider necessary to age well are mostly consistent, despite obvious cultural differences (Quigley et al., 2022). In a review of literature related to Indigenous Peoples worldwide, four major interrelated themes on ageing well were identified: achieving holistic health and well-being; maintaining connections; revealing resilience, humor, and a positive attitude; and facing the challenges (Quigley et al., 2022). Challenges included lack of access to housing, transport and adequate nutrition, and the impacts of colonization such as loss of language and intergenerational trauma (Quigley et al., 2022). The findings outlined how the concept of ageing well is enabled by spiritual, physical, and mental well-being, with reliance on connections to person, place, and culture. The literature also highlighted common challenges for Indigenous populations to achieve good health and well-being as they age. No literature in the review identified Torres Strait Islander Peoples' perspective on ageing well, or identified the unique challenges faced by Torres Strait Islanders due to their unique cultural, social, religious, and geographic position (Quigley et al., 2022). In articles from Australia, participants were grouped as "Aboriginal and Torres Strait Islander." However, there was no specific data attributed to Torres Strait Islander participants evidencing a need for further research in this area.

Aim of Study

The aim of the study was to develop a framework to support ageing well for people living in the Torres Strait and Northern Peninsula Area (NPA). A participatory action research study was established to develop this framework. This paper reports findings from one qualitative component of the study that centralized the Indigenous research method of yarning and answered the following research question: "What does ageing well mean to First Nations Peoples living in the Torres Strait?"

This research is embedded within a larger body of work with the Healthy Ageing Research Team (HART). HART comprises Torres Strait Islander, Aboriginal, and non-Indigenous clinicians and researchers who have been delivering both clinical gerontology services and researching with Torres Strait Island and NPA communities for over 25 years. All studies have been developed through ongoing relationships and consultation with both health service staff, community, and local council groups over many years (Quigley et al., 2021). HART's research is overseen by a specifically formed Knowledge Circle. This Knowledge Circle includes First Nations academics, community members, aged care workers, and health care staff who have expressed an interest in working with the research team on issues of ageing and health of older adults in their communities. Members share their expertise around study co-design and co-production, implementation, data collection and analysis, and dissemination of results; ensure research project methods and outcomes are culturally appropriate; take account of local issues; and ensure the involvement of local First Nations co-researchers to build research and health service delivery capacity in local communities. The group focuses on cultural content and ensures practices and values of their older people, their families, and communities are upheld during the research.

Setting the Scene

The Torres Strait region lies between the northern tip of Queensland, Australia, and Papua New Guinea, and comprises over 100 islands with 18 communities on 17 inhabited Islands as well as two Torres Strait and three Aboriginal communities in the NPA of Cape York, on the mainland of Australia. The majority of the approximately

9000 people living in the region identify as Torres Strait Islander, a culturally, historically, and linguistically distinct group of people predominately of Melanesian ethnicity (Dudgeon et al., 2010). The islands of the Torres Strait are geographically divided into five main cluster groups: Top Western, Near Western, Central, Eastern, and Inner. Each cluster group has their own language or dialects and their own distinct history and cultural identity (Lawrence & Lawrence, 2004). Participants in the study were of Aboriginal and/or Torres Strait Islander descent living in communities in the Torres Strait and NPA, where most consider themselves to be living "a Torres Strait way of life" in reference to the region they live in rather than their identity. For this reason, we have respectfully used "Torres Strait" to reflect the geographical context of this article.

Standpoint

The first author, RQ, is a non-Indigenous HART member who is leading the development of the framework for ageing well as part of her PhD. RQ is a clinician who has been working with Torres Strait communities for over 20 years, both in health service delivery and in research. The PhD study arose in response to feedback following HART's previous research highlighting an increased prevalence of dementia in the region. Torres Strait community members recommended a move from a deficit approach to a more strengths-based approach to understand and develop a framework to support older people to age well. The authorship team includes HART members and the PhD student's supervisory team and comprises Torres Strait Islander and non-Indigenous researchers with clinical backgrounds.

The larger research study, of which this qualitative component is a part of, takes a decolonizing approach and embeds Indigenous research principles into the methodology. Being inclusive of Indigenous ways of knowing, being, and doing is essential practice. Indigenous voices were brought to the forefront and a strengths-based approach, that promotes and celebrates the capacities and capabilities of the communities and individuals involved (rather than a problem-focused deficit ideology), was taken (Bryant et al., 2021; Fogarty et al., 2018). Torres Strait Islander team members were involved in all aspects of the research and brought Indigenous worldviews into the analysis of the yarning circles.

Ethical Considerations

Ethical approval was obtained from the Far North Queensland Human Research Ethics Committee (HREC/2020/QCH/59342—1406) and James Cook University Human Research Ethics Committee (H8063). The study is aligned to the National Health and Medical Research Council guidelines on ethical conduct in Aboriginal and Torres Strait Islander health research (Commonwealth of Australia, 2018). All participants provided written consent prior to enrollment in the study.

Methods

Yarning as a Research Approach

Yarning is an Indigenous way of sharing knowledge through story telling (Barlo et al., 2020; Byrne et al., 2021; Murrup-Stewart et al., 2021; Walker et al., 2013). As a research tool, yarning facilitates in-depth discussions in a culturally safe place allowing Indigenous people to talk freely in an informal manner, providing rich data and in-depth descriptions on a particular issue (Bessarab & Ng'andu, 2010; Byrne et al., 2021; Smith et al., 2020; Walker et al., 2013). Yarning circles are recognized as an appropriate approach to research with First Nations People in Australia (Barlo et al., 2020; Bessarab & Ng'andu, 2010; Geia et al., 2013) and can be used to explore locally relevant knowledge that may better guide culturally responsive perceptions of health experiences (Geia et al., 2013; Walker et al., 2013). Data co-generated through yarning demonstrates rigor and a legitimacy of the research process for Indigenous people, as well as within the wider research community (Bessarab & Ng'andu, 2010; Shay, 2019). Using yarning circles as a research method centers Indigenous Knowledge systems, acknowledges the importance of relationality, as well as observing cultural protocols, and therefore facilitates culturally safe research (Atkinson et al., 2021; Barlo et al., 2020; Byrne et al., 2021; Shay, 2019).

Yarning Circle Sites

Yarning circles were held at six sites from across the Torres Strait and NPA: Ngurupai Island and Kirriri Island (Inner cluster), Wug Community on Moa Island (Near Western cluster), Warraber Island (Central cluster), and Bamaga and New Mapoon (NPA).

Yarning Circle Participants

Inclusion criteria: First Nations adults (aged 18 years and over) from four island communities and five NPA communities were included.

Exclusion criteria: People under the age of 18 were excluded. No other exclusion criteria were applied.

Recruitment

Invitations to participate in the yarning circles were facilitated through health center staff, aged care services,

promotion of the study on a local radio station, and recruitment flyers placed on community notice boards in local council offices, health centers, and community stores.

The Yarn

Ten yarning circles were conducted, with a total of 45 participants. The yarning circles were co-facilitated by one or more Torres Strait Islander research team members (CW, BS, ST) and one or two non-Indigenous team members (RQ, SGR, ES). The composition of yarning circles was determined by participants and was specific to the circumstances of each community. In some communities, gender specific yarning circles were requested, so separate yarning circles were held for males and females, facilitated by male and female Torres Strait Islander researchers, respectively. In other communities, participants requested separate yarning circles for younger participants (in their twenties and thirties), and older participants rather than by gender. In some smaller communities, all participants, regardless of age or gender, wanted to yarn together.

Yarning circles commenced with a social yarn that included introductions to clarify relationships between and among participants and provided opportunities to develop trust and rapport with the researchers (Bessarab & Ng'andu, 2010). Refreshments were provided as part of the social yarn. Participants could choose if they would join in the subsequent research yarn, decide how long they stayed, and could end their participation at any time during the yarn—consistent with principles of self-determination.

The research yarns were opened with a Torres Strait Islander researcher asking participants, "What does ageing well mean to you?". In some yarns, further prompts were required to focus the yarn on the barriers and enablers specific to the culture and traditional lifestyle that support healthy ageing, such as "What role does your culture play in being able to age well?", and prevention of chronic disease and comorbidities, "How does your health affect you growing old?". The role of environmental, cultural, spiritual, and other priorities for living well while ageing was also explored, with prompts that included: "How does living in this community support you to age well?", "How does your family, friends, and community support you to age well?", and "What are the things that are important to you as you grow older?". The research yarns were audio-recorded with permission.

Yarning Analysis

The data analysis method was guided by Braun and Clarke's Reflexive Thematic Analysis (RTA) methods (2022). RTA is an interpretive approach to analyzing data across a range of theoretical frameworks, that facilitates the identification of themes across a given data set (Braun & Clarke, 2022). It addresses research questions that explore people's experiences, perceptions, behaviors, and factors that influence a particular phenomenon as well constructing meaning of experiences (Braun & Clarke, 2022). In RTA, the researcher's reflexive engagement with theory, data, and interpretation and the importance of the researcher's subjectivity as an analytic resource are emphasized (Braun & Clarke, 2022). RTA is an appropriate method for analyzing yarning research (Murrup-Stewart et al., 2021). Braun and Clarke's (2022) six phases that outline the process of RTA were used to guide the analysis for this research, incorporating additional processes for Indigenous involvement, as follows:

1. Dataset familiarization:

Verbatim transcripts were transcribed by RQ, de-identified and uploaded into NVivo 12 (QSR International) for data management. CW and BS (Torres Strait Islander researchers) translated any Torres Strait Creole that was spoken in the yarning circles, into English. During and after transcription and translation, the data were read and re-read by RQ, CW, and BS. Notes were made of any analytical observations.

2. Coding:

A collaborative coding approach was used to ensure Indigenous worldviews were incorporated into the understanding and interpretation of the data. A coding framework was developed by RQ, CW, BS, SR, and MRM based on the research questions, the initial observations of the data, and the literature. Transcripts were deductively coded by RQ using the framework. This initial coding of the data was undertaken systematically using a complete coding approach, where any item of data that might be useful in addressing the research question was coded. CW and BS reviewed and confirmed the coded data.

3. Initial theme generation:

In this phase, the coded data was explored to develop potential themes. The focus shifted to the interpretation of meaning across the whole data set. A mind-map was used to visualize the connections and relationships between codes with involvement from RQ, CW, BS, SR, and MRM. This generated the initial themes.

4. Developing and reviewing themes: Yarning about the yarning:

The initial themes generated became a yarning topic for the team to use to develop the themes more robustly. Using orality for data analysis upholds Indigenous research principles and paradigms (Mafile'o et al., 2024). The two Torres Strait Islander team members shaped the thought processes, generating new themes and combining others, intertwining Indigenous ways of knowing into the themes and providing Torres Strait Islander perspectives. Themes were discussed between RQ, CW, BS, SR, and MRM until consensus was achieved and the final themes derived. In this "yarning about yarning," how well the themes provided an interpretation of the data that addressed the research question was also assessed.

5. Refining, defining, and naming of themes:

Continuing with the "yarning about yarning," it was discussed how the themes should be presented through a Torres Strait Islander lens. As an oral centric culture, Torres Strait Islander people often organize and transmit knowledge around visual metaphors. These metaphors are concrete and explicit (physical, often nature-based objects) and are a common Torres Strait Islander way of explaining more abstract concepts in a comprehensible and relevant way (Mam et al., 1993). Metaphors are often grounded in land and story. As such, the idea was developed by the Torres Strait Islander researchers to present the findings of the yarning circles using the metaphor of a wongai tree. The wongai tree and its fruit is significant in Torres Strait Islander culture as a traditional food and carving material, and the seeds are used as jewelry. The wongai tree also features in Torres Strait Islander stories and there is a well-known legend which states that whoever eats the fruit of the wongai tree is destined to return to the Straits.

6. Writing up:

To align with the values of this study and our decolonizing approach, it was important that the write-up ended on a strengths-based narrative. Therefore, reporting the final theme of "Demonstrating strong sustained life: regrowth" focused on a positivity to ageing well rather than problematizing Torres Strait Islander peoples. The findings were also published in a plain language version, with wongai tree illustrations, as well as a visual animation video, for dissemination in communities across the Torres Strait and NPA.

Findings

Ageing well, as expressed by participants, is represented by the life and structure of a wongai tree. Each theme generated relates to a part of the tree that best describes the findings. The themes are represented as (i) Living a Torres Strait Islander way of life: the roots, (ii) Practicing Torres Strait Islander identity: the trunk, (iii) Living a healthy lifestyle: the branches, (iv) Displaying strong leadership and role models: the leaves, (v) Passing on knowledge, tradition, and cultural practices: the fruit, (vi) Experiencing adversity: damaging events, and (vii) Demonstrating strong sustained life: regrowth. Representative quotes from the 10 yarning circles are included to center the voices of the participants and illustrate the findings.

Living a Torres Strait Islander Way of Life: The Roots

The Torres Strait Islander way of life laid the roots for a healthy life and in turn healthy ageing. Participants described how connections to their island home, family, friends, and community, and interactions and support arising from those relationships, kept them strong and therefore supported ageing well. Those networks spread out extensively like the roots of the wongai tree, and like the wongai tree roots, supported all that grew above them.

A deep connection to participants' roots—their island home—was explicit from all the participating communities. Being on traditional lands contributed to health and well-being: "Having a beach day, the beautiful view, the land, and the sea means so much to our health up here" (YC5). Participants wanted to grow old in their community and stay in their homes and on their traditional land: "I would rather stay here and get older" (YC9).

Connections to family as part of the Torres Strait Islander way of life were central and promoted ageing well. Being with family was a source of joy that kept people strong and happy: "Ageing well, it's very simple, in my life experience, it's [being with] my family" (YC10). Grandchildren in particular afforded older people with motivation to keep going and provided them with a purpose in life often through the responsibilities and structure needed to raise them. Grandchildren kept the older person active and on their feet.

> [I] like to look at my grandkids and great grandkids. I'm happy with them. Looking at them as they are growing up and I'm growing old, they still make me happy. I get some energy from them; I am feeling good about them. (YC9)

Connections to the wider community as part of the Torres Strait Islander way of life were also discussed as promoting ageing well. Connections to, and contributing to, the wider community kept participants grounded, gave them a sense of purpose, were a source of joy, and provided participants with feelings of belonging:

> They [older adults] actively engage, they actively laugh, they actively socialize, and that's how I want to be when I get to their age, still a part of the community, still pulling my weight and making sure that community has a function. (YC1)

Community was also a great source of support both practically, "We still come together as a community and help each other out when need be and share things together" (YC3), and emotionally. One participant shared, "We sit and talk […] If I feel down, I talk to my cousin. And other people come to me, and we can talk about it" (YC8).

Practicing Torres Strait Islander Identity: The Trunk

Torres Strait Islander identity, practiced through cultural activities and traditions, provided strength and well-being through the continuum of life and consequently supported ageing well. This theme is symbolized by the trunk of the tree rising from the ground. As the wongai tree grows, it has a direction and it takes on its shape, just as the identity of being a Torres Strait Islander is shaped through practicing tradition and culture, enabling growth, strength, and resilience. The trunk of the tree must be strong to combat the harsh sea winds, and be resilient against disease to have longevity. Likewise, traditions and culture need to remain strong for participants to age well.

Participants expressed how participation in cultural events such as island dancing, feasting, and craft activities facilitated growth, often through the opportunities to gain traditional knowledge, which contributed to ageing well: "Every time there was a feasting in our—like a gathering or a cultural activity,—I'm always there, learning knowledge" (YC1).

Participants saw the traditional lifestyle of "days gone by" as one of strength and good health. Participants reminisced about how the traditional ways of living promoted good ageing: "In the olden days there were no diabetics, no high blood pressure because of the way of living, the way they ate and everything, walking" (YC9). Participants talked about how it was a much simpler life, but often a harder life, for the older generations:

> Life is very easy today and at your fingertips. Before people grew up with a very hard life, they had to get our food and the fuel to cook it. Now it's just walk in a switch on the switch to get the light on, the food already [prepared] to eat. (YC9)

Participants described the physicality of everyday life in the past. People would do hard physical work in their everyday tasks such as collecting firewood for lighting and cooking, managing their gardens, carrying water from wells, hunting and gathering food, and rowing boats when fishing or for transportation. These activities kept them fit and healthy and contributed to their longevity:

> I didn't buy her coconut cans from the shop. I scraped, I cleaned and scraped coconuts. […] It's only that little bit hard work but guess what you benefit from it? I've got muscles I never knew existed from scraping. (YC1)

Eating traditional food and traditional ways of sourcing food were seen as significant factors that contributed to ageing well, and were described as important in the past, with participants describing how their ancestors lived longer lives:

> I remember as a kid my parents we would always live off garden food back in the days. I see my grandfather living with us and he had a good age. We never had dementia back then. Now we have the cancer and chronic conditions, more people are dying in the past few years from cancer. (YC10)

Most people would garden and eat food that they grew. That type of food was considered healthier, more satisfying, and less expensive than processed store-bought food used now: "The food that we have been grown up with would keep us healthy. People used to have gardens of their own with banana, cassava, sweet potato, pumpkin, and watermelon" (YC9). Ageing well was described as following the ways of your predecessors and returning to a more traditional way of living: "If we want to age healthily, we've got to follow our footsteps from before us especially if we want to stay strong and not fall by the way" (YC1).

Living a Healthy Lifestyle: The Branches

A healthy lifestyle, which included physical, mental, cultural, and spiritual domains, was critical to ageing well. All aspects were connected, and if any one of those was lacking then it affected the health of a person. To age well required a balance across the domains and a holistic approach. A healthy lifestyle for participants is symbolized by the branches of the wongai tree. Branches grow in all directions and are different sizes, but they must be balanced—they don't all grow from one side of the tree. If branches are missing, the tree becomes unstable and more susceptible to adverse forces:

> [ageing well] It's holistic. It's the whole thing—culture, whether it's spiritual, healthy eating, also wellbeing, individual wellbeing, psychological, but also socially as well, social with people. Interactions. Having everything, they all intertwine and makes a person. If one is out of balance the rest are unbalanced. For a healthy person I think everything needs to be all equal and level. (YC10)

Although living a healthy lifestyle was seen as a holistic concept, participants singled out specific elements of importance: mental health, physical activity, and diet, that influenced ageing. These are represented as balanced branches of the wongai tree.

Mental Health as a Branch. Participants described how having strong mental health was important to their overall health and supported longevity and quality of life: "I think the mental side of it is really powerful, it drives a person. So, to be healthy is to look after your mental wellbeing" (Y10). Participants emphasized the importance of discussing the significance of mental health with friends and family, as well as being open about any issues being faced:

> If we have a problem we share. If we have a hard time with our husband, boyfriend, then we share. You can work out how you going to change this […] Going through domestic violence for me, I went really down, it was hard but thank God for my sista[sic] there. We would talk together. Mentally for me was, I was depressed. (YC8)

Physical Activity as a Branch. Another lifestyle factor that was singled out as a significant influence on ageing was physical activity. Some communities discussed how active their communities were, with organized sports such as darts, Australian football, rugby, Zumba, and island dancing, which encouraged community members to exercise: "When the football girls do their exercise, the community joins in too" (YC5). Others appreciated how the natural environment of their island communities was an ideal place for exercise, "The gym is the hill, the beach, the reef, the creek" (YC5), rather than formal venues or planned activities. The older generations were seen as good examples of remaining active and how that helped with ageing:

> There are those elders who were up at dawn chucking a line off the reef here to catch fish for their children. These elders, they're going to be around for a lot longer. Why—because they are still physically active. (YC1)

Diet as a Branch. Diet was discussed extensively across all communities as a lifestyle factor that influenced health and consequently impacted on how one aged: "The way we eat affects the ageing" (YC8). Participants discussed how a diet rich in fruit and vegetables and fresh fish, as well as portion-control, was considered healthier and contributed ultimately to longevity. It was emphasized that this information needed to be reinforced in the younger generation: "They [younger generation] need to know how to cook and grow their food […] we need to teach them about growing food traditionally and trying to get them off all the fast food" (YC2).

Displaying Strong Leadership and Role Models: The Leaves

Strong leadership and role models within the community facilitated ageing well. This is symbolized by the leaves of the wongai tree. The function of leaves is to produce nourishment for the tree. Likewise, strong leadership provided sustenance to the community and played an important role in setting a moral compass and providing structure:

> We have to lead by example. I'm approaching my Eldership now, we have to lead by example, and we have to lead in such a way that if they [the younger generation] see us healthy then they will be healthy. If they see us make the change, they will make the change. (YC1)

The importance of respect and moral values were also associated with leadership. The older participants appreciated and valued respect being shown to them, and felt it contributed to their overall well-being when ageing: "[being an older person] all of them nephews they listen to me when I ask them to do some things for me, so [ageing well] can be done if we have respect" (YC3).

Passing on Knowledge, Tradition, and Cultural Practices: The Fruit

Passing on knowledge, tradition, and cultural practices was key to ageing well. This is symbolized by the wongai fruit. The main function of a wongai fruit is to spread the seeds (the nuts) contained in the fruit, to ensure continuation of its species. Likewise, the passing on (the spreading) of knowledge and culture is fundamental to the continuation of the Torres Strait Islander way of life and as such influenced the ageing trajectory. Passing on knowledge brought benefits not only from those that were learning, but also from those that were teaching. For the older adults, it gave them pleasure to know they were sharing their wisdom and skills: "It is important to me to pass on my knowledge and culture. Today all the boys say, 'we should go and sit down with Grandad and learn. He will explain to us how to make the harpoon.'" (YC3). Passing on knowledge also provided older generations with a sense of purpose and fulfillment from being able to pass on skills and language to the young children and seeing their joy in learning from an Elder:

> Them kids, they say, "nice to see you aka [grandma/name]," because they were happy to see me because of what I tell them, and explain for them, like, what's true and what's not true, and I [taught] them dances and song, and today I talk to my grandchildren, teach them lingo, and tell them what is right and what is wrong. (YC4)

The process of teaching kept the older person active and connected to their community: "We try to share this [traditional ways] in our women's group, this year we are just started doing our women's group. And to share those kinds of ideas to the younger ones" (YC8).

Living With Adversity

Damaging events have resulted in adversity, impacting on Torres Strait Islanders' way of life and identity, ability to live a healthy lifestyle, pass on knowledge, and maintain leadership roles. This theme describes how the impacts of colonization, religion, inequitable access to services, modern-day challenges such as the influence of social media and technology, and the broader SDoH have affected the ability to age well. This is symbolized by a damaging event to the wongai tree, such as a cyclone, that breaks off branches, blows off leaves and fruit, causes root damage, and exposes the internal trunk, allowing disease and rot to take place.

Impacts of Colonization as a Damaging Event. Participants likened colonization to a rot that had penetrated their society just like the rot of a tree. Ill health was described as a consequence of colonization: "We have a cultural hierarchal structure and practices which worked. Being tampered with have dismantled us slowly and surely and that then contributes to many factors that leads to ill health" (YC10). Participants particularly emphasized how the effects of historical trauma were impacting on the health of today's generation, and how intergenerational trauma was influencing lifestyle decisions that affected health outcomes:

> We are living, us as the third generation, we are living through what happened to the first generation before us. We're just getting the tail end now hence diabetes and everything is coming through […] not only physical sickness but the mental sickness. The mental depression, those things are hindering our choices. They are the things; they are the actual barriers that stop us from making clear choices because you've got the trauma sitting in there. (YC1)

The impacts of colonization had a wider significance for participants than just on their health. Social breakdown had led to the loss of the traditional hierarchical structure within families and communities and with that, a loss of the teaching of cultural practices:

> Torres Strait [Islanders] are cultural, traditional people, it's only that we are going away from our traditional cultural lifestyle that we have ended up in this predicament, but when we were in that system of governance that we had in the community, the community was well, everybody was active, contributing. [Name] said to me, "Bala,[brother] one thing I notice, the old people back in the days, they had little, but they achieved much. Today we have much, and we achieve little." (YC5)

Inequitable Access to Services as a Damaging Event. Participants from all communities described how access to aged care and health care services, and social, community, and recreational programs was, at times, problematic making ageing well a challenge. For participants, being able to access appropriate aged care services and therefore being able to grow old on their island community was very important to them, and for most residents the desire to die on island was significant. Remaining on their island home as they aged allowed them to remain connected to family, friends, community, and their land: "We want an aged care facility here on [community name] for our people, those that are getting ill and older, so they are not getting sent away [to a facility away from the community]" (YC10).

In only two of the communities did participants have access to a day respite center, but those able to access this service spoke of the benefits: "Coming here [day respite], getting your brain active, nice to share stories with all of my friends, having laughs" (YC9). For those in the more remote communities, the necessity to travel off community to access health care often resulted in participants either not accessing care or getting sub-optimal treatment: "Most of the people don't want to go to their appointment, they scared of planes, and the weather is changing, raining all the time, they can't go. Even go for screening, for breast screening, some go, some stay" (YC8).

Modern-Day Challenges as a Damaging Event. The cyclone also damages roots, which represents the weakening of the connections and support between families and communities. Participants described how the structure of modern-day society meant family members often had different priorities and responsibilities. For some, this meant having to leave the community for work and education, and consequently not being available to provide support to the older person, as this older participant stated: "At home I am by myself as the grandchildren are away working" (YC9). This breakdown in traditional family structure had implications for ageing well with regard to social isolation. For older participants, the lack of family presence left them feeling under-stimulated: "I am left at home by myself. Just sitting in my bedroom looking at four walls" (YC9).

Participants acknowledged that changes within a modern-day society came with challenges. The introduction of technology, including phones and TVs, and social media was seen as negatively influencing the traditional practices within the home and impacting on traditional lifestyles:

> When we didn't have a television, everybody would be out on the reef or the young boys would be making spears, the Elders would be showing the young boys how to make spears, but today when we have television and a lot of social media, the dynamics of the home have changed now. (YC5)

More generally, the introduction of technology was seen to be a deterrent for people being physical active. Participants observed that more people were staying at home and not interacting within the community and were less inclined to be active when they had access to technology: "It [technology] makes you sit at one place on the phone instead of exercising and doing stuff around the house …. technology slows you down, makes you not exercise" (YC7).

However, there was a realization from some of the participants that modern-day technologies were part of everyday life and a way to incorporate them into today's culture was needed:

> How do you grab what was practiced and what you aim to continue to practice like our culture, and incorporate the modern changing environment because, yes, we have to keep up with what is changing. How do you incorporate that and find a balance? (YC10)

Social Determinants of Health as a Damaging Event. Other aspects of life that were seen as a challenge of survival can be understood as the SDoH. Participants described the challenge of survival due to cost of living, lack of transport, housing issues, and environmental factors. The "high cost of living" (YC10) included costs associated with food, recreation, and transport. Transport between communities was problematic for some of the older participants that had to access the main hub of Thursday Island for health and aged care services:

> I can't go on the ferry, if I lost my balance […] I just can't walk on […] and if I need to go to TI, [Thursday Island] my son has to take the day off from work and go over in my car on [the car ferry] and that costs money. And that's why I only go once in a while. (YC4)

Ageing well encompassed more than health for the participants. They described how issues relating to housing affected their ability to age well. This included issues around overcrowding within homes: "The housing is overcrowded as well. For me and my family we have six in a 2-bedroom house, and it is not good […]. The only way is to relocate somewhere. But I don't want to leave the island" (YC7). Environmental factors also impacted on some participants' decisions to address lifestyle behaviors that could influence ageing. Many of the communities described the barriers to growing garden food. Some of the reasons included crops being eaten by wild horses, mice, and bush turkeys: "We can't plant the veggies. Mainly only the cassava and sweet potato because the bush turkey dig it up" (YC9).

Demonstrating Strong Sustained Life: Regrowth

Damage may have occurred following the devastating winds; however, the roots of the tree have not died, and there is still life in the tree and hope for the future as new growth sprouts forth. This is symbolic of the sustained strong existence of the Torres Strait identity and way of life attributed by the participants to resilience, positive attitudes, personal motivation, and taking responsibility for one's health. This was also facilitated by activities to strengthen self-care, such as keeping occupied, doing the things that made them happy, and practising their faith.

Participants reflected on the Torres Strait Islander Peoples being historically resilient:

> We should just stand up and say, OK, that's enough, as a race, as a people. Because that's not our style. We're not that sort of people, we're a resilient people, we stand up and we do things for ourselves. Maybe we need to go back there. (YC1)

Participants described having to overcome past adversity and take a positive approach to moving forward. For many of the participants, this meant taking responsibility for their own decisions and choices that affected their health. A change in lifestyle was required for a long and healthy life: "We have to be sensible and think about what sort of things that we put into our bodies" (YC4).

Personal motivation encapsulated the drive to stay active, fit, and healthy and in doing so remain independent:

> She [older resident] keeps active and keeps herself going and I can see a couple of other [older] ladies that do the same thing. They're keeping themselves […] even though they might be restricted in lots of things, but in other ways they're keeping themselves going, motivated, motivated. (YC4)

Overall, participants took a positive attitude to ageing well and staying active and independent. For many, a positive attitude was expressed as looking forward to growing old: "I am looking forward to getting older. I'm always happy" (YC9). Passing on this attitude and setting a good example to the next generation was also important. The benefit of having this positive attitude was to be able to continue to stay well for their families: "I take a pleasure in trying to do the right thing. I try my best. That's all I can do, for my kids, just try my best" (YC1).

Participants also described how doing activities that made them happy and provided inner strength ultimately

supported ageing well. Activities that improved their well-being, avoided feelings of social isolation, and maintained self-esteem included interacting with nature, "I think ageing well for me is being at the seaside and doing my own things. Doing the things that I used to do with my parents, go bush, looking for bush food, and all them things" (YC10), and staying connected to friends and family, "[Being] with your grandkids, nephews and nieces, family members, best friends, [makes me happy]" (YC9).

Faith was seen as a way of staying strong and providing a sense of purpose in life, which contributed to ageing well. Faith provided pleasure and brought joy into people's daily lives: "I go to church all the time. Every Sunday I go to church. All the other Christian people are there, and we sing, it's nice" (YC9). Practicing faith also provided a shared interest to connect with friends and work colleagues and provided the opportunity to set good examples and pass on values and knowledge to the younger generations.

Generally, participants reported that keeping occupied was important for healthy ageing, whether this was through staying connected with friends and community members, participating in community events, partaking in cultural practices, or being active doing household chores: "If you sit you get lazy and you're going down" (YC9). Participants discussed how keeping occupied had a physical focus, either through dedicated exercise or just through incidental exercise as part of everyday household activities: "I keep strong … working in the house, doing dishes and help my daughter" (YC9). Keeping occupied was also seen to assist with maintaining independence for the older participants: "I'm 79, I will be 80 next year, so I still do my things, do my washing, my cleaning and things like that, I never rely on my daughters, or my neighbours I do my things myself" (YC2). Keeping occupied was associated with personal motivation and attitude toward ageing: "I am 65 years old. But I still want to work because I want to stay fit and healthy" (YC3).

Discussion

This study aimed to explore what ageing well means for First Nations Peoples living in the Torres Strait and NPA. Findings demonstrate that ageing well is more complex that just achieving good physical health or "Healthy" ageing. For participants in this study, ageing well encompassed a broader, more holistic view that included concepts absent from Western paradigms of healthy ageing models, but instead reflected CDoH. For First Nations Peoples, culture is the basis for health and well-being (Bourke et al., 2018; Finlay et al., 2020) and the strengths of culture have continued to evolve and thrive despite the negative influences (Department of Health, 2021).

The Torres Strait Islander way of life—through connections and relationships to family, friends, community, and island home—was at the heart of the yarns. This reflects the cultural domains of "Connection to Country" and "Family, kinship, and community" as described by Bourke et al. (2018) and Finlay et al. (2020) in their definitions of the CDoH. Indigenous Peoples' connections to their traditional lands provide empowerment (Finlay et al., 2020) and are central to existence (Kingsley et al., 2013). For participants, the ability to age well was embedded in their connections to their island home or community (NPA) and disconnection from traditional lands compromised health and well-being. This finding aligns with global studies that describe how connections to Country for Indigenous Peoples influence the ageing trajectory (Browne & Braun, 2017; Butcher & Breheny, 2016; Pace, 2020; Radford et al., 2019). Connections to family friends and the community also had significance for the participants. Strong ties to family and community are a domain of the CDoH, where society is constructed around community, kinship, and family and being part of the community may necessitate responsibilities and obligations (Bourke et al., 2018; Finlay et al., 2020). Connections were not only to maintain personal contact but involved connections to community—viewed as an extension of the family—a concept also described by Pace and Grenier (2017). They reviewed perceptions of ageing in North American Indigenous Peoples and found that relationships with family and community were fundamental to successful ageing.

Torres Strait Islander identity also aligns with the domain of the CDoH described as "cultural expression and continuity" (Finlay et al., 2020). Participants placed great emphasis on how practicing their cultural activities and traditions supported ageing well. First Nations Peoples have for millennia asserted that practicing culture is fundamental to good health and well-being. This concept has not always been accepted in Western models of health care or research (Finlay et al., 2020). Understanding the role that culture plays is an important aspect in any framework that seeks to understand the ageing experience for First Nations Peoples living in the Torres Strait and NPA. Furthermore, an understanding of the importance of culture as a determinant of health and well-being needs to progress and be recognized as a significant factor in Indigenous health and well-being, if health inequities are to be addressed (Parter et al., 2024).

Living a healthy lifestyle symbolized a holistic approach to ageing well, where mental health, physical activity, and diet were all in a positive balance, and health and ageing flourished. When any one of those factors was negatively impacted, health and the ability to age well were hindered. Findings from this study are consistent with the literature on global Indigenous ageing that found

it was a combination of factors across mental, physical, spiritual, and emotional realms that supported a person to age well (Quigley et al., 2022). A holistic approach to ageing well is needed in the design of effective policies, programs, and support for the growing cohort of ageing First Nations Peoples in the Torres Strait and NPA.

Strong leadership was significant to the participants in ageing well. This theme aligns with the domain of "Self-determination and leadership" with the CDoH (Finlay et al., 2020). Leadership roles have been seen to strengthen cultural affiliations, provide a sense of purpose, elicit feelings of being needed and respected, and instill a sense of pride in older Indigenous adults (Athira et al., 2024; Coombes et al., 2018; McCausland et al., 2023; Quigley et al., 2022). Older adults were generally shown respect within their communities, contrary to Western perceptions of ageing where older adults are often perceived as a burden on society (Dionigi, 2015; Quigley et al., 2022). The sociocultural aspects of the roles of leaders in Indigenous communities suggest differing values and priorities to ageing well, to those of mainstream frameworks, and needs to be acknowledged in policy and service delivery (Yashadhana et al., 2021).

Passing on knowledge, tradition, and cultural practices supported ageing well. This aligns with "Indigenous beliefs and knowledge" and "Indigenous language" in the CDoH (Finlay et al., 2020). Passing on traditional values, languages, beliefs, wisdom, skills, and knowledge and how this promotes ageing well has been described in previous literature (Coombs et al., 2018; Pace & Grenier, 2017; Quigley et al., 2022). This study extends the literature highlighting important determinants for ageing well for Indigenous Peoples are ideological and culturally situated rather than based on gaining materialistic wealth, and achieving good health as indicators of ageing well, associated with Western views of successful ageing (Quigley et al., 2022).

These findings evidence elements of CDoH that are significant contributors to ageing well and are protective factors in that trajectory. However, challenges to ageing well were significant for First Nations People living in the Torres Strait. Participants shared how the impacts of colonization are widespread, including ill health, substance abuse, and destruction of traditional lifestyles and practices, which have diluted Torres Strait Peoples' culture. For some, an internal dilemma arises over how to integrate modern technologies, like smartphones, in a way that aligns with traditional practices. Within Indigenous communities, there is a divide between those who view technology and the Internet as opportunities and those who perceive them as threats to the existence and dignity of Indigenous Peoples. These perspectives are influenced by the lasting effects of colonialism and the continuous efforts of Indigenous communities to protect their cultural heritage and dignity (Sianturi et al., 2023). Impacts of colonization on the health and well-being of First Nations Peoples in Australia are well documented (Dudgeon et al., 2010; Paradies, 2016; Sherwood, 2013). Findings from this study are consistent with literature exploring ageing within Aboriginal communities in Australia, and how the ongoing legacy of colonization influences the ability to age well (Coombes et al., 2018; McCausland et al., 2023; Radford et al., 2019; Yashadhana et al., 2021). These impacts of colonization intersect with the broader SDoH that exacerbate ongoing inequity. In this study, these included housing issues, environmental challenges, cost of living, access to transport, food security, and access to culturally appropriate health and aged care services—a theme consistent with Indigenous Peoples internationally (Quigley et al., 2022). However, participants' inner strength, evidenced through resilience, attitudes, personal attributes, and outlook on ageing, counterbalanced difficulties faced, meaning that ageing well, for many, is achievable. These findings resonate within the literature on Indigenous ageing globally (Pace & Grenier, 2017; Quigley et al., 2022; Yashadhana et al., 2021).

Implications of Findings

Voicing First Nation People's perceptions of and priorities for ageing well is an essential element for the delivery of person-centered care to address health inequities (Coombes et al., 2018). Asking community "What does ageing well mean to you?" has provided insights into the importance of incorporating the CDoH into the design of policies, programs, and supports to improve the ability to age well for residents of the Torres Strait region of Australia.

Embedding CDoH into health policy and practice will require systemic change and Indigenous leadership (Finlay et al., 2020). At present, the disconnect between Indigenous culture and Western health care models adversely affects ageing well for many First Nations People (Coombes et al., 2018). Ageing well programs and supports must take a culturally safe, holistic, multifaceted, and whole-of-community approach (McCausland et al., 2023; Quigley et al., 2022; Wettasinghe et al., 2020) and address inequities across the life course, including the wider SDoH, that influence ageing (Pace & Grenier, 2017; Quigley et al., 2022; WHO, 2015). Harnessing the strengths of individuals, their resilience, attitudes, and approaches to life, with those of community, promotes a strengths-based approach to ageing well (Quigley et al., 2022).

Limitations

Yarning circles were held in three of the five island clusters across the Torres Strait. Given the diversity across

the region, findings may not represent perspectives from other Torres Strait communities, although many participants spoke about family connections to island homes not included in this study. There may have been other opinions that the researchers did not capture, as those who attended were those who were interested in talking about their health and ageing and were proactive in wanting to make changes. Participants involved were also physically well enough to leave their homes to attend the yarns.

Conclusion

These findings broaden the current understanding of ageing well in a wider field of Indigenous ageing to be inclusive of Torres Strait Islander Peoples' knowledge and perceptions. The concept of ageing well is deeply rooted in the CDoH, with emphasis on connections to island home, family, and community. Specifically, factors that kept people strong and ultimately led to them being able to age well included: maintaining a strong Torres Strait identity and Torres Strait way of life through practicing of culture, and traditions, including the passing on of knowledge and wisdom; balancing physical, mental, cultural, and spiritual domains; and having strong community leadership. By centering First Nations perspectives in policies and practices aimed at promoting health in later life, we can improve conditions for enhancing the quality of life for older adults.

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Author Contributions

RQ contributed to the concept, design, and implementation of the research, collected and analyzed data, and drafted the manuscript. CW collected and analyzed data and reviewed the manuscript. BS contributed to the concept, design, and implementation of the research, collected and analyzed data, and reviewed the manuscript. SGR contributed to the concept, design, and implementation of the research, collected and analyzed data, and reviewed the manuscript. ST reviewed the manuscript. SL contributed to the analysis and reviewed the manuscript. ES contributed to the concept, design, and implementation of the research, collected the data, and reviewed the manuscript. MRM contributed to the analysis and reviewed the manuscript.

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Ethical Statement

Ethical Approval

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Informed Consent

All participants provided written, informed consent.

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Appendix B

Yarning on Warraber

Appendix C

Participant Information Sheet

INFORMATION SHEET FOR YARNING CIRCLE

Study Title: Developing a Framework for Healthy Ageing for the Torres Strait

Background

Studies show that people living in remote Aboriginal and Torres Strait Islander communities have poorer health outcomes than the general population. To improve health outcomes, people need to be able to access services that suit their needs. For this to happen, local communities need to be asked what healthy ageing means to them and how older people can be supported to age well and remain living at home as long as possible.

Aims of the Study

The aims of this study are:

- To find out what people's health priorities are and what healthy ageing means to them
- Using this information, we will work with primary health care centres to look at these priorities and then better support older people to age well and live at home for as long as possible
- Guidelines will be developed that the health centres can use for improving the health of older adults living in the region.

What you will be asked to do

We would like to invite you to a yarning circle to talk with others. This will take about an hour and a half of your time. We want to know what healthy ageing means to you and how you think older people can be supported through the health care system to age well and remain healthy.

- You do not have to take part and you can stop at any time if you do not want to continue
- The yarning circle will be recorded
- Information is kept confidential and results will be presented as a group so no-one can be identified

Who is running this study?

- This study is being run by Professor Edward Strivens from Queensland Health and the College of Medicine and Dentistry, James Cook University in Cairns.
- The study is funded through a 5-year grant from the National Health and Medical Research Council
- Ethics approval has been given.

If you have any questions, please contact: Professor Edward Strivens at the Cairns Hospital on 07 4226 6197

If you would like to speak to an officer of the hospital not involved in the study, you may contact the Human Research Ethics Committee, on (07) 4226 5513

Appendix D

Participant Consent Form

Consent Form for Yarning Circle
Study Title: Developing a Framework for Healthy Ageing for the Torres Strait

By signing this consent form, I agree:

- The study has been explained to me and I know what is involved
- I have been given time to ask questions about the study
- I consent to take part in this study
- I understand that taking part in the study is voluntary and I can stop at any time
- I understand that the yarning will be recorded and is kept confidential
- Results will be presented as a group so nobody can be identified
- Any information collected will be published and shared with the community, but no names will be used
- I have a copy of the information sheet to keep

Signed_____

Date _____

I have explained the study to this participant, and I believe he/she understands what is involved.

Signed_____

Date _____

If you have any questions, please contact:
Professor Edward Strivens, Cairns Older Persons Health Services on
on 4226 6197

If you would like to speak to an officer of the hospital not involved in the study, you may contact the Human Research Ethics Committee, on (07) 4226 5513.

Consent form: Yarning Groups Version 1 05/11/19 Page 1 of 1

Appendix E

Yarning circle guide

Yarning Circle Guide

Social Yarning

- Introductions from everyone in the room - include some information about who they are and family, what they do,
- Can include gossip, news, humour, information

Research Topic Yarning

- Introduction to the HART Healthy Ageing research work - a bit of background around our research in the past as well as clinical work.
- How we came to be doing this study – i.e. came from feedback received following the dementia prevalence study.
- Talk about how we are doing the study i.e. working with some of the Primary Health Care Centres using quality improvement activities to improve service delivery for older people living in the Torres Strait
- To be able to work with the health centres on issues of ageing we need to know what ageing well means to people living in this community, what their priorities are as they age and what are some of the things that assist them to age well and what some of the challenges are to ageing well.
- This session today is to hear from you all on your thoughts of ageing well living on XXXX

After the introductions let the participants know that we will be switching on the recorders for the next part of the session.

Ageing Well

1. **How do you feel about growing older?**

   Prompts:
   - What are you looking forward to?
   - Are you apprehensive about getting old or enjoying ageing?
   - What are you concerned or worried about as you get older?
   - What is your attitude to getting old?
   - How do you view older people?
   - Are you having to make changes?
   - Have you noticed people treating you (or others) differently as you get older?

2. **What does it mean for you to grow older?**

   Prompts:
   - What are the things that are important to you, as you grow older?
   - What is most important?
   - What keeps you healthy, happy and strong?
   - Think of someone in your community that is ageing well – without using their name describe why you think they are doing so well.
   - Think of someone you know that isn't doing so good. What problems do they face? Are there reasons for that?

Health & mental wellbeing

1. **How does your physical health affect you growing older?**

   Prompts:
   - Is being able to do physical activity important to you? - Why? What do you do?
   - Is eating the rights foods and having a good diet important to you – Why? What do you eat? Is traditional food important? Why?

2. **How does all your other illnesses you may have, affect you growing old well?**

   Prompts:
   - How do you make sure you are managing your health?
   - Are there things you think you should be doing to keep healthy as you age?

3. **How does your mental wellbeing affect you growing older?**

   Prompts:
   - What are some of the problems you may face and how does this affect you ageing well?
   - What are some of your strengths with managing mental health concerns?

Community, Family and Friends

1. **How important are the people around you, as you grow older?**

2. **How does your family, friends and community support you to age well?**

   Prompts:
   - Do you feel connected to your community?
   - What activities connect you to community?

Culture

1. **What is an older person's role within the community?**
   - Does that change as they age?
2. **What role does your culture play in being able to age well?**

Prompts:
- Being on Country
- Being with family and community
- Language
- Traditions and cultural activities

3. **Are these responsibilities changing in your community?**

Spiritual

1. **How do your spiritual beliefs affect your ageing?**
2. **Do you feel supported in your beliefs? How?**

Environmental

1. **What is good about living on XXXX Island as you get older? What is not so good?**
2. **How does living on the Island support you to age well?**
3. **Are there difficulties with being on the Island?**
    - Housing?
    - Safety and security?
    - Access to activities?
    - Access to food?

Service provision for ageing population

1. **What services do you need as you grow older?**
    - Are those services available on this Island?
    - What's good about the services that are here?
    - What's not so good about the services that are here? How could they be improved?
    - What other services would be useful?

What else would you like to see happen around here to make things better for older people?

Therapeutic yarning

Opportunities for participants to debrief and reflect on any issues raised during the yarning circle

Appendix F

Example of generating themes

Phase 3: Generating initial themes

Initial code	Reflections of meaning • *What is this person trying to tell me?* • *What is this person doing?* • *What is this saying?* • *What does it represent?* • *What is this an example of?* • *What do I see is going on here?* • *What is happening?* • *What kind of events are at issue here?* • *What is trying to be conveyed?*	Connected to other codes:
Access to aged care services CYCLONE This code describes how participants see having access to aged care services impacts on their ability to age well. It explores their thoughts on having to enter a RACF. It also describes their experiences of community aged care services such as day respite. It includes the positives of engaging with services but also how the system is failing with lack of services. It describes equity / inequity of service access and the implications for person and community if they have to leave home to access care.		

1

I think a place here, like this [respite centre] make it bigger so we could all stay here instead of going to Star of the Sea.	• Comfort at being close to home and being with friends • Fear of having to move away to go to SoS • Importance of remaining in their community	importance of connections to family friends and community Being on island
when we need to catch the ferry and that cost money. One [RACF] can be here. I would rather stay here like this place [respite centre] make it big, when we get older. So, we can stay here	• Cost implications of living away from community • Uses "we" as opposed to "I" indicates other participants/clients are a family /unit wanting to stay together, connected	cost importance of connections to family friends and community Being on island
I would rather stay here [in this community] and get older.	• Growing older in familiar surroundings – the security of familiar faces when entering a period of your life when other changes are happening – keeps some stability?	importance of connections to family friends and community Being on island
Make this place [day respite centre] big so we all can stay here.	• The notion of "we" again that unit/importance of connection	importance of connections to family friends and community Being on island

We really want that thing [RACF] to come into community. Our people are over it here. We need our ...whats that thing?... like the Star of the Sea [RACF]	• Community is disgruntled they don't have equal access to services. • Wanting a RACF closer to home • Voicing an unmet need	importance of connections to family friends and community Being on island
Because people here they can't afford to go up and down, if its [RACF] in Cairns or over on TI and we like to do it here for us.	• Wanting equal access to a RACF- examples of inequity • Not wanting to move • Again, use of word "us" indicates friends /unit and connections • cost	cost importance of connections to family friends and community Being on island
we want an aged care facility here on the NPA for our people, those that are getting ill and older, but not getting sent away because it is out of reach	• Concept of being punished or banished as growing older because there is no local RACF • We and "our" indicates strong feeling of community	importance of connections to family friends and community Being on island
No, we want to stay here. No way. This is our home; we don't want to leave our home [to go into a RACF off island].	• Being forced off island due to inequity of services • Importance of being home • Again using "we" signifies the community unit	importance of connections to family friends and community Being on island

We got one old man at Star of Sea now, but the elders want him to come back home. He says he wants to come back home.	• This is an example of how even when someone has left the island to go into a RACF they are still wanting to return to their home – and the community wants their Elder back – the community are deprived of their Elder and all the knowledge they hold, and the Elder is saying it's not home where he is • Broken relationships. Felt across the community. Disruption to the community cohesiveness due to loss of one member	importance of connections to family friends and community Being on island
we do have a masterplan for refurbishment and extension of the Bamaga hospital which includes aged care. So, some of the things that we want like there are a lot of things around like taking away from country and whatnot, we want to make sure that those that do require those services are kept here on site.	• Providing equitable access means staying closer to home when care is needed • implies being on Country is both important to the person themselves but also again important to the community that their valued "resource" is not removed.	importance of connections to family friends and community Being on island
We don't get from the community, but we get from HACC. We get more help from HACC. When we want to go, we let them know and they come and pick us up. Take us shopping, going to lunch or fishing or to the hospital.	• Aged care services support older residents to continue to do the things that make them happy • Aged care services help them age in place	Doing the things that make you happy
They look forward to coming to the [HACC] program. And when one doesn't come, they all say, "where is she?"	• Community looks out for each other • HACC gives them a sense of purpose and connection/cohesiveness?	importance of connections to family friends and community
A lot of help from HACC, they provide like our meals and gave us everything that we want and take us to fish and sometimes when it's not raining, we do a lot of activities down the beach with them.	• Providing older people with necessities to stay home • Providing opportunities for them to do what they enjoy	Keep busy Doing the things that make you happy

	• Keeping them busy	
When we finish early here, they [HACC] take us for a ride. They take us right down to airport and around community.	• HACC provide that social requirement – this is appreciated	Keeping busy Doing the things that make you happy
the HACC program with [XXX] and they usually have the Elders group on Friday, and I usually help assist, and they have activities, or they just sit there and yarn, and they play bingo, bingo is the most popular game at the moment.	• Keeping physically and mentally active • Being with friends is important to be able to just sit and yarn • The enjoyment of social inclusion and being part of a group	Social interactions Physical activities Mental wellbeing
they [HACC] have a variety of activities for them to do. I remember X [HCP coordinator] had, she brought in her exercise stuff.	• HACC keeps them busy and promotes physical activity	Physical activity
they do dancing and exercise activities [at HACC]	• Opportunity to practice cultural traditions • Opportunity for physical activity	Cultural practices Physical activities
Auntie was saying over at HACC they have an iPad, and they play games on them	• Opportunity for social engagement • Keeping the mind busy • Provide a link to technology (younger generation)	Social interaction?
that's like with Uncle [name] as well, through [name] and the HACC program he learnt how to use the iPad, now he's using it to watch boxing or whatever he does. Yeh that's one thing that's been good about the program, it's getting up with the IT	• Opportunity to learn new skills • Providing pleasure	Doing the things that make you happy

they [HACC] do have something like that where they brought in school kids, so they do things like that with Elders	• Connecting generations	
I don't know if there's, like HACC, I don't what HACC is doing in the community, if they're still relevant here	• Lack of HACC services on this island – community not happy with lack of service	
that [HACC] service is not benefitting the need, the amount of Elders here compared to the amount of HACC workers here there is an imbalance, that needs more workers in that sense.	• Lack of HACC services on this island – community not happy with lack of service • Unmet need	
[we need] people who can come and like shop for us, like door dash, come and go to the shop or come and take us.	• Need for aged care supports in the community	
it would be nice to have a care place, because you ask the Elders, they'll say they don't want to go to TI, they'd rather stay home here, so if we could have a facility where we care for our own people, our Elders. We have carers here, but it would be good to have a facility where the community can look after everybody, all the Elders.	• The community want to keep the Elders at home and not split up the community unit. Community wants to fulfil their responsibilities by caring for the older generation. By leaving the island the community do not get chance to practice their cultural responsibilities • Elders want to stay on their island home • Wording – our people – sense of community	Being on island Cultural practices
not an old people's home, but a care centre, a place where we can care for Elders, because they, you know, they miss themselves too, they always talked to each other, and we noticed that lately they don't talk, because they grew up with each other. As an example, putting them, like Auntie [Name of older resident] she's by herself there. Just a facility we can care for our Elders.	• Potential for social isolation • A day respite centre provides opportunity for the older residents to socialize together	Social isolation
I'd rather see something so when we get old there's a place for us so we can get connected.	• Looking into the future residents want to grow old together and stay connected with their family and friends	Maintaining connections

they [older residents] want to come home, like that [Palliative care] facility, that can cater for them instead of [moving away].	• They see other services and want the same for aged care - importance of keeping the older residents at home and on island. • Importance of dying on island	Being on island Maintaining connections
There's a lot we don't have up here.	• Lack of equity to aged care services	
No [aged care services]. Nothing on Warraber.	• Lack of equity to aged care services	
[participant's name] lives by himself. He's had health complications where we had to medivac him down to Cairns and when he comes back there's no one here to assist him. No care. That need is very much.	• Lack of support services for those needing assistance	
other community [aged care] services, zilch, and I'm speaking from experience, because I was running a lot of those things, and now because I am retired.	• No one taking the helm to carry on running aged care support services in the community	Lack of community leadership
with the support system, with the older people, I've got, elderly people are on their own a lot, a lot, and as you said, there's not much here for, for the people and you can't rely on your family.. well mostly you can, with some people are lucky with their families, that they've got here, but to have that sort of system with the community and the families, you need, even if it's one day a week, you know to get together, so people just aren't on their own all the time.	• Potential for social isolation if an older person doesn't have family support because there are no community services • Importance of social interactions	Social isolation
So, we need to have somebody who's compassionate about that, the job and to be actively involved, because the [aged care] services are there, but its only on TI, or out on the outer islands, because I know they travel to the outer Islands they have to come through here. But why are we … what's wrong with Horn Island? what have we done to deserve to be put on the back shelf?	• Needing someone in the community to lead the service locally • Disappointment that visiting specialist services don't provide a service to Horn even though they have to pass through to go to the airport	Lack of community leadership

SUMMARY	Staying on island is very important as you are growing older. It is important to the older person as it allows them to remain connected to family, friends, community and being on Island. For this reason, older people want aged care services closer to home with a RACF locally. The wider community also want the older people to stay in their community because they see the value in having that person there to be able to practice cultural traditions and pass on knowledge. Sending an older person away to access aged care breaks up that community unit for all involved. It severs the relationships between community members. The community hold a responsibility to care for their elders and by sending the older person away takes away the opportunity for community to fulfil their responsibilities. By leaving the island the community do not get chance to practice their cultural responsibilities and community cohesiveness is disrupted. There is also the added cost for individuals and family if an older person is admitted into a RACF off island. For the older person there is fear of moving and loss of their stability and comforts. Older people want to grow old together with that familiarity around. There is the concept of being punished or banished from community if having to leave to access a RACF. For most residents the desire to die on island is significant. Having aged care community supports is also of importance. They provide opportunity for older adults to keep doing the things that keep them happy including physical activities and things for mental wellbeing. It provides opportunities for social interactions including sitting and having a yarn, connecting with other generations, practicing cultural traditions and keeps them busy. This provides residents with a sense of purpose and provide opportunities for community cohesiveness. Community services can keep a person independent and living at home fulfilling the desire to age in place. In some cases, it also provides opportunities for learning new skills. However, there is an acknowledgement that for some communities there is a lack of community leadership that could continue to run HACC services. Where general services are lacking there is a sense of inequity across the region with particular communities feeling as though they are being disadvantaged by not being provided with services. Providing equitable access means providing those services that allow older residents to stay closer to home when care is needed. Denying an older person, the opportunity to engage socially has the potential to increase social isolation, especially where there is a lack of family support.	• importance of connections to family friends and community • Being on island • Cost • Doing the things that make you happy • Keeping busy • Social interactions • Physical activities • Mental wellbeing • Cultural practices • Social isolation • Lack of community leadership

Appendix G

Lay version of yarning circle findings

Growing old good way in the Torres Strait

HART

Australian Government
National Health and Medical Research Council

JAMES COOK UNIVERSITY AUSTRALIA

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Foreword

This booklet was written following our yarns with several Torres Strait and Northen Peninsula Area communities. We yarned with community members on Ngurupai, Wug, Warraber and Kirriri. We also held two yarns in the Northern Peninsula Area in Bamaga and New Mapoon where community members from all five communities attended. In these yarns we asked people what ageing well meant to them. We wanted to know what things helped them to age well so others could learn from them. We also yarned about some of the challenges people faced to ageing well in their communities. Results reflect the voices of people living in these communities and how they view ageing well.

These stories were brought together and presented here as parts of a wongai tree. The words in the speech bubbles are the actual words that were said to us by the people that took part.

These findings, along with work we have been doing with the Primary Health Care Centres, will be used to develop an Ageing Well Framework to support people to age well in the Torres Strait and NPA region.

This research project is run by the HEALTHY AGEING RESEARCH TEAM (HART).

Many thanks for taking time to read this booklet

Eso

Aunty Betty Sagigi Chenoa Wapau

Acknowledgements

We would like to thank all the people that came along to the yarning circles to share their stories and wisdom with us about ageing well. It is your words that we use. This story is for you all.

We would like to thank the staff at Warraber PHCC, Ngurupai PHCC, Wug (St. Pauls) PHCC, Bamaga PHCC and the PARAC team for helping with the yarning circles – big Eso.

We also want to thank Jimi Thaiday for his artwork of the wongai tree and the healthy ageing logo.

This story was written by: Auntie Betty Sagigi, Chenoa Wapau, Rachel Quigley, and Sarah Russell.

Living a Torres Strait Islander way of life: the roots

The roots of the wongai tree are strong and keep the tree healthy. Just like the Torres Strait Islander way of life, with strong relationships and connections which help people to grow old well.

Connections to *island home* keep *people well and healthy:*

People want to grow old in their own homes within their island communities. They don't want to leave their homes to access health care or aged care services.

"Having a beach day, the beautiful view, the land, and the sea means so much to our health up here. We've always got that place where we go."

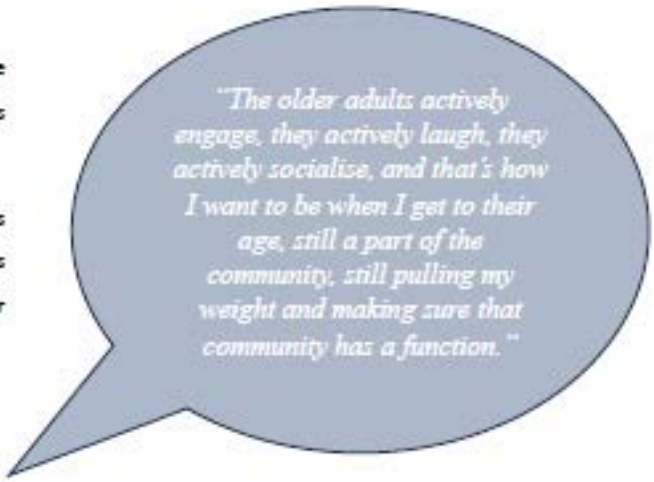
"We want to stay here. This is our home; we don't want to leave our home to go into an aged care home off the island."

Connections to family is an important part of a Torres Strait Islander way of life. Being with family makes people happy and keeps them strong. Being with grandchildren keeps older people active and on their feet.

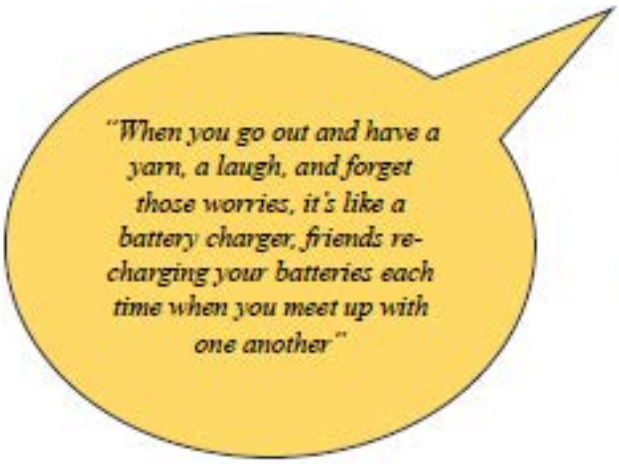
"Ageing well, it's very simple, in my life experience, it's being with my family."

Connecting to the community helps people age well.

It gives people feelings of belonging, provides joy, and gives older people a purpose.



Being social and joining in community events makes people feel good. Social connections support holistic wellbeing.



Generally, people look forward to growing old with their family and friends by their side and doing all the things they enjoy together.

Practicing Torres Strait Islander Identity: the trunk

The trunk of the wongai tree is strong and shapes the tree as it grows, holding it together. Just like the Torres Strait Islander identity is shaped through tradition and culture.

The trunk of the tree must be strong to survive against the harsh winds, to be resilient against disease and to live for many years. Traditions and culture also need to be strong for people to age well.

"What does it look like to be ageing well? The cultural practices come with respect, acknowledgement, and contributes to the social and emotional wellbeing for individuals, families and communities. The cultural hierarchal structure, within the community, within the family, there is that acknowledgement of the processes, the wisdom and knowledge that comes with ageing and all that stuff. That is good ageing."

Each year that passes adds more height and width to the tree trunk, but it is the base of the tree trunk, the oldest part from years gone by, that is the strongest. This is the same for the ways of living in the old days. Back in the day, living a traditional lifestyle helped people age well and they were strong. The traditional way of life supported ageing well because of a healthier diet and people being more physically active.

"In the olden days there were no diabetics, no high blood pressure because of the way of living, the way they ate and walking."

In the old days people would do a lot of hard physical work in their everyday activities such as collecting firewood for lighting and cooking, managing their gardens, carrying water from wells, going out hunting and gathering food, and rowing boats. These activities kept people fit, active and healthy.

Most people would eat garden food that they grew, and this was healthier and more satisfying than processed store-bought food.

"Back in the old days, traditional food, was grown, caught, whereas now, all these processed foods. Everything was out the garden, lots of fruit trees, we didn't have a shop."

In days gone by, the traditional ways of living such as living off the island, community activities, and practicing cultural activities kept people strong and helped them to live long lives free from chronic disease. People say they have to follow the examples set by the older generation.

If we want to age healthily, we've got to start to follow our footsteps from those before us, especially if we want to stay strong and not fall by the way."

Living a healthy lifestyle: the branches

A wongai tree has many branches, which shows it is growing well. Likewise, there are many parts to wellbeing that help people age well. A healthy lifestyle includes physical, mental, cultural, and spiritual wellbeing. All these aspects are connected and need to be balanced.

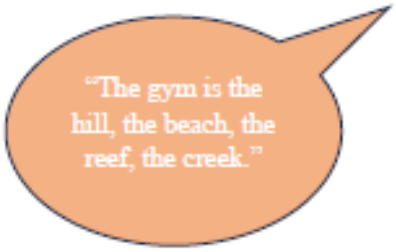
"Ageing well is holistic. It's the whole thing – culture, spiritual, healthy eating, also wellbeing, individual wellbeing, psychological, but also socially as well, social with people. Interactions. Having everything, they all intertwine and makes a person. If one is out of balance the rest are unbalanced. For a healthy person I think everything needs to be all equal and level."

A tree branch that is mental health

Having strong mental health supports ageing well. People find it helps to share worries with family and friends. Using mental health services is also good, but more services across the region would be helpful.

"The mental side of it is really powerful, it drives a person. So, to be healthy is to look after your mental wellbeing".

A tree branch that is physical activity:



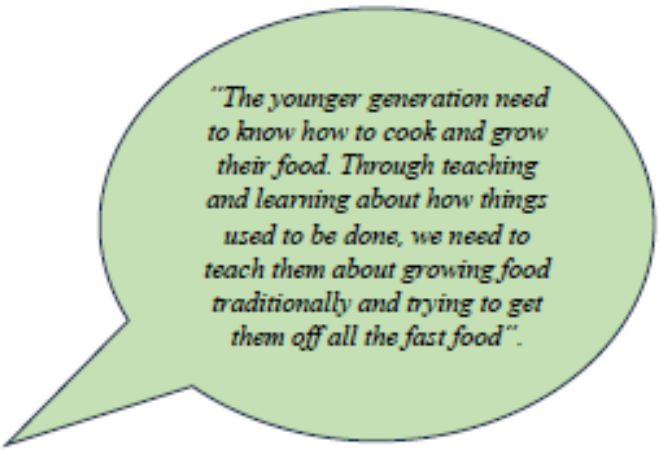
People know that doing physical activity is good for you and helps you to age well. The natural environment is a good place to exercise. People that remain active are living longer healthier lives.

A tree branch that is diet:

Most people know that the way we eat affects how we age.

A diet rich in fruit and vegetables and fresh fish, as well as portion-control is healthier and helps people age well.

The younger generation need to be shown how to grow and cook healthy food.



The branches of the wongai tree provide strength and support the canopy of leaves and fruit. Likewise, good lifestyle factors provide strength and support ageing well.

Displaying strong leadership and role models: the leaves

The leaves of the wongai tree are like leadership within a community. The leaves provide nourishment to the tree. Strong leadership and good role models provide support to the community.

Where old leaves die, new leaves grow and take their place and so when leaders pass, new leaders take their place.

"We have to lead by example. I'm approaching my Elderzhip now, but we have to lead by example, and we have to lead in such a way that if the younger generation see us healthy then they will be healthy. If they see us make the change, they will make the change whether it's culture, whether it's education, whether it's picking up something and helping others."

Strong leaders in the community play an important role in ageing well by being good role models to the younger generation.

People said that those in leadership roles can facilitate change within their communities.

"People would look to them, and they'd give the advice, and everyone would follow"

And that people of any age can be a good role model by showing respect and displaying cultural values.

"We have a garden club. We go round to people's homes and dig up and plant cassava or anything they want. Our president and vice president, they're all young boys, twenties, thirties. They're loving it! And at that age, good role models."

"All of them nephews they listen to me when I ask them to do some things for me, so ageing well can be done if we have respect".

Older people feel appreciated and valued when they are shown respect, and this helps them to age well.

Keeping the traditional values that were handed down as children, keeps people strong and helps them to age well.

"The men, the women, they know the teaching of them values when they were brought up, they keep those values today and that's a big contribution to their health"

Passing on knowledge, tradition, and cultural practices: The fruit

Passing on knowledge, traditions and culture is like the fruit of the wongai tree. New fruit and their nuts are passed on to create new trees. The passing on of knowledge, tradition and culture is central to the continuation of a Torres Strait Islander way of life and identity and supports people to age well.

"It is important to me to pass on my knowledge and culture. Now, today all the boys say, "We should go and sit down with Grandad and learn. He will explain to us how to make the harpoon"."

Passing on knowledge brings benefits not only from those that are learning, but also from those that are teaching. For elders, it gives them pleasure to know they are sharing their wisdom and skills.

Passing on knowledge also provides the older generations with a sense of purpose and fulfillment from being able to pass on skills and language to the young children and seeing their joy in learning from elders.

For those being taught, they have gratitude for all that they learn.

"I have the best job in the world. I sit with the elders and get their wisdom all day, every day".

Experiencing challenges: Damaging events

Damaging events have interrupted Torres Strait Islanders' way of life and identity, ability to live a healthy lifestyle, pass on knowledge and maintain leadership roles. This is like a cyclone passing through that breaks off branches, blows off leaves and fruit, causes root damage and exposes the inside of the trunk allowing disease to take hold.

Impacts of colonisation as a damaging event

Colonisation is like a decay that has caused ill health. Diseases are being passed onto the younger generations. People said that some turned to substance abuse to lessen the pain and negative emotions.

"We have a cultural hierarchal structure and practices which worked. Being tampered with have dismantled us slowly and surely and that then contributes to many factors that leads to ill health".

"All of my fathers have gone. They're all our compasses, for us young men. It's hard trying to do something where you haven't been brought up to learn or see it portrayed in front of you, it's hard. That's what Torres Strait is lacking, all of us, every island, is leadership."

Some people feel that connections to culture have been weakened and the structures within families and communities has changed. Others feel that where there is a lack of leadership and good role models, communities are affected.

Inequitable access to services as a damaging event

Being able to access health care, aged care and recreation programs across the region is a challenge for some people, especially those on the outer islands. Local aged care homes and respite services for older adults are needed.

It can be difficult getting to specialist appointments that are based on Thursday Island or in Cairns, getting to see a dentist, seeing a regular GP, and accessing mental health services.

More affordable sports venues, more activity programs and more child day care services are needed.

Modern-day challenges as a damaging event

The cyclone damages the roots of the tree, and some people feel that modern day living, like a cyclone, has weakened the connections and relationships amongst families and community members.

In some cases, family members have to leave the island to access employment, education or housing.

"At home I am by myself as the grandchildren are away working."

"When we didn't have a television, everybody would be out on the reef or the young boys would be making spears, the Elders would be showing the young boys how to make spears, but today when we have television and a lot of social media, the dynamics of the home have changed now."

The influence of phones, social media and other technology is negatively affecting traditional practices and the traditional lifestyle.

"We have lost the ability to communicate effectively. The children with mobile phones. When you talk, it's like you are not there. That's how disconnected we are. In generation terms how the younger ones disconnect from the older ones. People don't just sit and talk anymore. That's a very important factor in life, you need to be able to communicate with each other."

The cost of living, lack of housing and environmental factors as a damaging event

"The prices of food, especially salad, if you're talking about eating healthy, that's impossible because buying fast food is cheaper than healthy food".

The high cost of food makes it hard to feed large families on a healthy diet.

Other high costs that make it hard to live a healthy life are, access to sporting venues, airfares, and fuel.

The high cost of living is putting a strain on families.

More public transport is needed. For older adults, lack of transport makes it difficult to get out to the shops and around in the community.

"We need a bus, so we can go to the shops, transport for elders especially for those with walking difficulties."

"We have kids and our grandkids, and our great grandkids in the one house. It's hard to get housing for us."

Lack of housing and overcrowding makes ageing well difficult. People also have to wait a long time to get their houses fixed.

The environment can make it hard to live a healthy lifestyle. Growing garden food is difficult because of the bush turkeys, mice, dogs and horses that dig up the food.

Increasing temperatures due to global warming, and the wild dogs and horses makes exercising outdoors difficult in some communities.

Demonstrating strong sustained life: Regrowth

The cyclone may have damaged the tree but there is still life in the tree and new growth appears.

This is like the strong sustained existence of Torres Strait Islander people.

People stay strong because they are resilient and can see the need for change.

"If I want to be able to play with my grandchildren, I've got to look after me".

"When I talk about healthy age, we have to change the way we think, you've got to look after yourself and don't be sick. If we look after ourselves, we're going to be healthy. If we're going to drink until we're 50 we're not going to be healthy. If we're going to take drugs, we're not going to be healthy. I've been through all this. I've been through that life. I've seen people die in front of me. So, I have to make choices."

By making healthy lifestyle choices people understand they will be healthier and live longer.

14

Having a positive attitude and being motivated helps people grow old well.

People want to stay active and independent in their own homes and on their island home.

Doing things that make you happy and keeps you busy improves well-being and helps you to age well.

"I'm not going to be old. We can look after ourselves. And that's the positive attitude that you have, you have that positive attitude, you move on, and you get there and just keep yourself motivated, keep yourself going and look after yourself for as long as you can."

"I think ageing well for me is being at the seaside and doing my own things. Doing the things that I used to do with my parents, go bush, looking for bush food."

This may be being with family and friends, practicing your faith, being socially active in the community, working, or just being busy in the house.

Keeping busy is good both for your physical health and for your mental health. Being with family and friends helps you to have good social and emotional well-being. All these things help us age well.

"You need to do something for yourself. Out from the house, walk about, sitting outside the wharf or whatever. You pick up someone, you meet them, and you talk to them. That's makes you happy. If you are not doing those kinds of things, then you worry about things."

"If you sit you get lazy and you're going down"

Appendix H

Healthy Ageing Audit Tool

Confidential

Healthy Ageing Audit V 2

Record ID	_____
SECTION 1 **DEMOGRAPHICS**	
Auditor	_____
Audit date	_____
Age	_____
Sex	◯ Male ◯ Female ◯ Not specified
Indigenous status	◯ Torres Strait Islander ◯ Aboriginal ◯ Both ◯ Neither ◯ Not specified
Marital status	◯ Single ◯ Married ◯ De Facto ◯ Widowed ◯ Divorced ◯ Not specified
Employment Status	◯ Employed (F/T P/T) ◯ Volunteer ◯ Unemployed ◯ Retired ◯ Disability pension ◯ Carer pension ◯ Home duties ◯ Not specified ◯ Other
Other employment - comments	_____
Current employment details	_____
Usual living arrangements	◯ Lives alone ◯ Lives with partner or family ◯ Homeless ◯ Not specified ◯ Other

Comments on living arrangements	_____
Is overcrowding an issue for this client in their place of residence?	◯ Yes ◯ No ◯ Not specified
Is the client at risk of being homeless?	◯ Yes ◯ No ◯ Not specified
Additional comments on demographics	_____

SECTION 2
ATTENDANCE AT HEALTH SERVICE

Have any of the following MBS item numbers been claimed in the last 12 months?	☐ 715 (Health Assessment) ☐ 721 (GP Management Plan / Care Plan) ☐ 723 (TCA - Team Care Arrangement) ☐ 732 (Care Plan review) ☐ 900 (DMMR/HMR Medication review) ☐ 935-958 (Care Team meeting / Case conferencing) ☐ 2700-2717 (GP mental Health Plan) ☐ 10987-10989 (AHW/P or nurse) ☐ 8200-82215 (Nurse Practitioner) ☐ 81300 (AHW/P) ☐ 10951-10970, 81315- 81360 (Allied Health) ☐ 81305 (Diabetes educator) ☐ 81310 (Audiology service) ☐ Other relevant claims ☐ No claims
Other relevant claims - details	_____
Is there evidence that a 715 been completed in the last 12 months?	◯ Yes ◯ Partial completion / draft ◯ No
Has this 715 been claimed?	◯ Yes ◯ No

SECTION 3
DIAGNOSIS INFORMATION AND MEDICATIONS

Documented history of	☐ Diabetes ☐ Coronary Heart Disease / Ischaemic Heart Disease / Coronary Artery Disease / Cardiovascular Disease ☐ RHD ☐ Chronic Heart Failure ☐ Chronic Kidney Disease ☐ Atrial Fibrillation (AF) ☐ Hypertension ☐ Asthma/COPD ☐ Dyslipidaemia ☐ Depression ☐ History of delirium ☐ Hearing impairment ☐ Vision impairment ☐ Cognitive impairment ☐ Dementia ☐ Obesity ☐ Epilepsy ☐ Mental health ☐ History of head trauma ☐ History of childhood psychological trauma ☐ Osteoarthritis ☐ Sexually Transmitted Infection / Disease (STI/STD) ☐ Osteoporosis ☐ Gastro-Oesophageal Reflux Disease (GORD) ☐ COVID (current or past diagnosis) ☐ Other illness ☐ NIL
Diabetes type	☐ Pre-diabetes ☐ Type 1 ☐ Type 2 ☐ Gestational Diabetes ☐ Retinopathy ☐ Neuropathy ☐ Foot Ulcer ☐ Amputation
Coronary Heart Disease / Ischaemic Heart disease / Coronary Artery Disease	☐ CAD ☐ IHD ☐ Angina ☐ Arrhythmia ☐ Myocardial Infarction ☐ Heart valve Disease, ☐ Cardiomyopathy ☐ Cerebro Vascular Accident ☐ Coronary Artery Bypass Graft ☐ TIA ☐ Percutaneous Coronary Intervention ☐ Not specified
Mental health - more information	_____
Head trauma - more information	_____
Childhood trauma - more information	_____

STI / STD - more information	_____
Other illness - details	_____
Is the client pregnant or within 12 months postpartum?	○ Yes ○ No ○ unknown

MEDICATIONS

Polypharmacy	○ Yes ○ No
List medications or NIL	_____
Evidence of medication review	○ Yes ○ No ○ N/A

SECTION 4
RISK FACTORS, MANAGEMENT AND REVIEW

SMOKING

Current smoker?	○ Yes ○ No ○ Not documented
Evidence of health service response to smoking	☐ Advised to quit ☐ Referred to smoking cessation program ☐ Prescribed medication ☐ Other ☐ No evidence of response
Comments for other	_____

ALCOHOL

Evidence of alcohol consumption above recommended guidelines or deemed high risk?	○ Yes ○ No ○ Not documented
Evidence of health service response	☐ Advised to reduce intake and discussion on healthy limits etc ☐ Referred to ATODS or other program ☐ Prescribed medication ☐ Other ☐ No evidence of response
Comments for other	_____

DRUGS

Evidence of illicit drug use?	◯ Yes ◯ No ◯ Not documented
Evidence of health service response?	☐ Advice ☐ Referral ☐ Other ☐ No evidence of response
Comments for other	_____

ABSOLUTE CARDIOVASCULAR RISK ASSESSMENT

Is there a record of Absolute Cardiac Risk assessment in the last 2 years?	◯ Yes ◯ No
Which standard tool is used to calculate absolute cardiovascular risk (CVR) assessment?	◯ Heart foundation ◯ Framingham ◯ New Zealand ◯ WHO ◯ Other specify ◯ Not specified
Other - comments	_____
If assessed, what is the recorded absolute cardiovascular risk (%)?	◯ < 5% ◯ 5-9% ◯ 10-15% ◯ 16-19% ◯ 20-24% ◯ 25-29% ◯ >30% ◯ Not specified
Is there evidence of a health service response to a CVR of >10%?	◯ Yes ◯ No
Comments on Health Service response	_____

OBESITY

Is there a recorded height in the whole record (regardless of date)	◯ Yes ◯ No
What is their height in cm?	_____
Is there a recorded weight within the last 12 months?	◯ Yes ◯ No
What is their last recorded weight in kg?	_____

Is there a record of Body Mass Index (BMI) in the last 12 months?	◯ Yes ◯ No
What is the BMI recording?	_____
Have concerns been raised about obesity/over weight in the last 12 months?	◯ Yes ◯ No
Evidence of health service response?	☐ Advice on diet or exercise or healthy eating or healthy lifestyle ☐ Medications ☐ Referral to dietician ☐ Referral to exercise physiologist ☐ Referral to specialist ☐ Weight management plan ☐ Other (please specify below)
Comments on Health Service response	_____
NUTRITION	
Is there evidence of any concerns raised with nutrition?	◯ Yes ◯ No
Evidence of health service response to issues with nutrition	☐ Advice ☐ Supplements/ medications ☐ Screening tool ☐ Referral to dietician ☐ Other (please specify below) ☐ No evidence of response
Comments relating to Health Service response to concerns about nutrition / other	_____
Is there record of any issues with access to food?	◯ Yes ◯ No
Food access - more information	_____
PHYSICAL ACTIVITY	
Is there documentation and/or assessment of physical activity?	◯ Yes ◯ No
Are there concerns about the level of activity OR does the assessment / documentation indicate low exercise levels / inactivity?	◯ Yes ◯ No
Comments	_____

Health Service response to physical activity levels	☐ Advice ☐ Referral ☐ Other
More information of the referral	_____
Comments for other	_____

SECTION 5
CLINICAL MEASUREMENTS AND INVESTIGATIONS

BLOOD PRESSURE

Is there evidence of BP measurements in the last 12 months?	◯ Yes ◯ No
What is the latest BP recorded?	_____
Is the BP reading higher than 130/80?	◯ Yes ◯ No
Is there a documented management plan re the high BP?	◯ Yes ◯ No
Comments re management plan	_____
Is there evidence that blood pressure medication was reviewed?	◯ Yes ◯ No ◯ N/A
Comments re BP and BP medication	_____

URINANALYSIS AND KIDNEY FUNCTION

Is there evidence of urine dipstick in the last 12 months?	◯ Yes ◯ No
Is there evidence of urine analysis in the last 12 months?	◯ Yes ◯ No
Is the most recent dipstick test/urine analysis positive to protein (1+ or more)?	◯ Yes ◯ No ◯ Not specified
Evidence of Health Service Response to raised proteins?	◯ Yes ◯ No
Comments regarding Health Service Response	_____

Is there a record of ACR within the last 12 months?	◯ Yes ◯ No
Most recent ACR (Alb/CRE ratio) result? In g/mmol	_____
Was the ACR > 2.5 (male) or >3.5 (female)?	◯ Yes ◯ No
Is there evidence of Health service response to high ACR	◯ Yes ◯ No
Comments regarding Health Service response	_____
Is there a record of eGFR in the last 12 months?	◯ Yes ◯ No
Most recent eGFR range	◯ >60 ◯ 30-59 ◯ 14-29 ◯ < 15 ◯ Not specified
Is there evidence of a Health Service response to low eGFR	◯ Yes ◯ No
Health Service response - comments	_____
BLOOD GLUCOSE LEVELS	
Evidence of blood glucose test (HbA1c) in the last 12 months?	◯ Yes ◯ No
What was the most recent HbA1C reading in mmol?	_____
What was the most recent HbA1C reading as a % ?	_____
Is the most recent blood glucose test (HbA1C) result >53 mmol or >7% ?	◯ Yes ◯ No
If HbA1C is >53mmol or >7% is there evidence of a Health Service response?	◯ Yes ◯ No
Comments around Health Service response to high HbA1C	_____
LIPID PROFILE	
Is there evidence of a lipid profile test in the last 12 months?	◯ Yes ◯ No

Is LDL-C >2.5 mmol?	◯ Yes ◯ No
Is HDL-C < 1.0 mmol?	◯ Yes ◯ No
Is Triglycerides > 1.5 mmol?	◯ Yes ◯ No
Is there a record of a Total Cholesterol/HDL ratio within the last 12 months?	◯ Yes ◯ No
What was the most recent cholesterol/HDL ratio?	_____
Was the ratio above 4.5mmol/L?	◯ Yes ◯ No
Is there evidence of health service response to abnormal lipid findings?	◯ Yes ◯ No
Response provided	☐ Advice by GP ☐ Medication (commenced / changed) ☐ Referral to diabetes educator ☐ Referral to dietician ☐ Other
Comments - other	_____
OSTEOPOROSIS	
Is there evidence of an osteoporosis screen for eligible clients (postmenopausal women (regardless of age) and men over 50 years of age)?	◯ Yes ◯ No ◯ N/A ◯ Unsure of menopausal status of female
Is the client deemed high risk?	◯ Yes ◯ No
For those screened at high or moderate risk, is there evidence of further investigations been carried out?	◯ Yes ◯ No
Has osteoporosis been diagnosed?	◯ Yes ◯ No ◯ Not specified
If osteoporosis has been diagnosed has non-pharmacological advice & interventions been provided?	◯ Yes ◯ No ◯ Not specified
If osteoporosis has been diagnosed has chemo-prophylaxis commenced?	◯ Yes ◯ No ◯ Not specified

Comments

SECTION 5
SYSTEMS EXAMINATION

FOOT CHECK

Is there evidence of a foot check?
- ○ Yes
- ○ No

Comments regarding foot check

ORAL HEALTH

Is there evidence that client has had a dental check in last 12 months?
Includes: examination of teeth, gums, oral care e.g teeth cleaning, toothache or bleeding gums
- ○ Yes
- ○ No

Comments regarding dental check

CONTINENCE

Is there evidence of continence screen within the last 12 months?
- ○ Yes
- ○ No

Are there any concerns with continence?
- ○ Yes
- ○ No

What are the concerns?

Is there evidence of referral for further assessment/intervention?
- ○ Yes
- ○ No

What was the intervention?

EYE EXAMINATION

Is there evidence of eye condition screening within the last 12 months?
- ☐ Visual Acuity
- ☐ Eye dilation check
- ☐ Trichiasis
- ☐ Glaucoma
- ☐ Macular degeneration
- ☐ Cataracts
- ☐ Other (specify below)
- ☐ No record

Comments

Have concerns been raised with eye/ vision?	◯ Yes ◯ No
Has action has been taken to address concerns?	◯ Yes ◯ No
Comments on action taken to address concerns	_____
HEARING	
Has a hearing test been conducted within the last 12 months?	◯ Yes ◯ No
Have concerns been raised with hearing?	◯ Yes ◯ No
Have actions been taken to address concerns?	◯ Yes ◯ No
Comments on actions	_____
SKIN CHECK	
Is there evidence of a skin check?	◯ Yes ◯ No
Have concerns been raised regarding skin?	◯ Yes ◯ No
Have actions been taken with concerns raised	◯ Yes ◯ No
Comments regarding actions for skin concerns	_____
Comments regarding system checks	_____

SECTION 7
SCHEDULED SERVICES

IMMUNISATION STATUS	
Is there evidence of Influenza vaccination within the last 12 months?	◯ Yes ◯ No
Is there evidence of current Pneumococcal vaccinations?	◯ Yes ◯ No
Is there evidence of COVID-19 vaccination?	◯ Yes ◯ No ◯ Partial coverage

OTHER TESTS

Is there documentation of pulse rate and rhythm in the last 12 months?	◯ Yes ◯ No
Is there documentation of cervical screening test (HPV)?	◯ Yes ◯ No ◯ N/A
Is there evidence of mammography?	◯ Yes ◯ No ◯ N/A
Is there evidence of discussion around sexual / reproductive health?	◯ Yes ◯ No

SECTION 8

EMOTIONAL WELLBEING

Is there record of screening for emotional wellbeing using a standard tool in the last 12 months?	◯ Yes ◯ No
What tool was used?	_____
What was the score?	_____
Is there any documented questions (not a tool) regarding emotional wellbeing in the last 12 months?	◯ Yes ◯ No
Have any concerns been raised about emotional wellbeing as a result of questions or tools used?	◯ Yes ◯ No ◯ N/A (no questions asked or tools used)
Is there evidence of a Health Service response to concerns raised?	☐ Referral to a mental health service ☐ Medications ☐ Referral to SEWB service ☐ Other ☐ No actions recorded
Other - more information	_____
If there are recommendations from an external service have they been implemented?	◯ Yes ◯ No ◯ No recommendations documented
What is the implementation - more details	_____

FAMILY RELATIONSHIPS

Is there evidence of risk within the last 12 months, that requires client to be linked in with social services?	◯ Yes ◯ No
Comments around social services	
SOCIAL	
Evidence of social interactions	☐ Church ☐ Family ☐ Community celebrations / groups ☐ Cultural celebrations /connections ☐ HCP/CHSP - group activity ☐ Social organisations or club ☐ Sporting organisation or club ☐ School clubs ☐ Other ☐ Nil evidence
Other - please specify	
Comments re social interactions	

SECTION 9

COGNITIVE FUNCTION	
Since the client turned 45 years of age, have concerns about memory, confusion or thinking problems been raised?	◯ Yes ◯ No ◯ N/A (under 45)
Who raised the concern?	☐ Client ☐ Family member or carer ☐ Health Professional (unspecified) ☐ Health Worker ☐ Nurse ☐ GP ☐ Allied Health ☐ Mental Health Practitioner (psychologist, social worker, therapist, ATODs worker) ☐ Not specified ☐ Other
Other - more detail	
Since the client turned 45 years of age, is there evidence of assessment of cognition?	☐ Yes - specific questions on memory, cognition or thinking asked by the GP during a consultation ☐ Yes - routine questions on memory in the 715 ☐ Yes - a cognitive assessment screening tool ☐ No ☐ N/A (under 45)

Which cognitive assessment tool was used?	☐ MMSE ☐ KICA ☐ Clock Test ☐ GP-Cog ☐ Mini-cog ☐ RUDAS ☐ MoCA ☐ ACE-III ☐ Other
other - specify	_____
What was the test score?	_____
Outcome of cognitive assessment - comments	_____
Has a diagnosis been documented?	☐ Dementia ☐ Mild Cognitive Impairment ☐ Normal cognition ☐ Mood disorder ☐ Delirium ☐ Medication-related ☐ Head trauma / Acquired Brain Injury (ABI) ☐ Chronic Traumatic Encephalopathy (CTE) ☐ Other ☐ No diagnosis documented ☐ N/A
Other - more information	_____
Date of diagnosis	_____
For those clients where concerns have been raised or assessment of cognition has been performed is there evidence of investigations related to CI eg. CT-Brain, MRI-Brain, lab investigations?	◯ Yes ◯ No ◯ N/A
What investigations were done?	_____
Is there documentation of any BPSD (Behaviour and Psychological Symptoms of Dementia) such as wandering, aggression, disinhibition?	◯ Yes ◯ No ◯ N/A (no diagnosis)
What was the behaviour?	_____
Has the client been referred to a specialist?	◯ Yes ◯ No ◯ N/A (under 45 or no concerns raised to warrant referral)

What specialist?	◯ Geriatrician ◯ Psychiatrist ◯ Other
Other - more details	_____
Is there evidence they have seen a specialist ?	◯ Yes ◯ No
Date seen by specialist	_____
If referred to a specialist, is there a record of a report from the specialist?	◯ Yes ◯ No
Did the specialist make recommendations?	◯ Yes ◯ No
What recommendations were made?	_____
If recommendations are made by the specialist is there evidence they have been actioned?	◯ Yes ◯ No
Is there evidence of assessment of decision-making capacity?	◯ Yes ◯ No ◯ N/A (no dementia /CI diagnosis)
Decision-making capacity - more information	_____
Is there evidence that a proxy decision-maker or EPOA (Enduring Power of Attorney) been appointed or discussed?	◯ Yes ◯ No ◯ N/A
Comments around EPOA	_____
Is there evidence of discussions around the following?	☐ EOL (end of life) ☐ ACP (Advance Care Planning) ☐ ACD (Advance Care Directive) ☐ No evidence ☐ N/A
Comments	_____

SECTION 10

SUPPORT SERVICES

Has a referral to My Aged Care been made?	◯ Yes ◯ No ◯ N/A (under 45) ◯ Unknown
Date of referral	_____
Has the client had a RAS assessment?	◯ Yes ◯ No ◯ N/A (under 45) ◯ Unknown
Date of RAS	_____
Has the client had an ACAT assessment?	◯ Yes ◯ No ◯ N/A (under 45) ◯ Unknown
Date of ACAT	_____
Does the client receive aged care services?	◯ Yes ◯ No ◯ N/A (under 45) ◯ Unknown
What are the services?	◯ CHSP ◯ HCP ◯ Unknown ◯ Other
Other - specify	_____
Does the client receive other support services?	◯ Yes ◯ No ◯ Unknown
If yes specify other service (disability etc)	_____

What support services are in place?	☐ Personal care (showering dressing) ☐ Domestic assistance ☐ Shopping assistance ☐ Transport assistance ☐ Meal provision ☐ Cooking assistance ☐ Day respite ☐ Overnight respite ☐ Residential respite ☐ Medication assistance ☐ Social assistance ☐ Other ☐ No services in place ☐ N/A (not requiring support) ☐ Unknown
Other - more detail	_____

SECTION 11

ALLIED HEALTH INVOLVEMENT

Is there evidence of allied health involvement?	○ Yes ○ No
Type of Allied Health involvement	☐ Physiotherapist ☐ Occupational Therapist ☐ Dietitian/Nutritionist ☐ Diabetic Educator ☐ Podiatrist ☐ Psychologist ☐ Exercise physiologist ☐ Speech pathologist ☐ Social Worker ☐ Pharmacist ☐ Other
Other - more detail	_____
Type of intervention	☐ Weight management ☐ Pain management ☐ Activity program ☐ Medication management ☐ Psychological support ☐ Counselling ☐ Centrelink access support ☐ Home visit assessment, mods and equipment ☐ Provision of mobility aids ☐ Foot care ☐ Diabetes education/management ☐ Other
Other - more detail	_____

SECTION 12

FUNCTIONAL ASSESSMENT

Is there evidence that a functional assessment has been carried out?	◯ Yes ◯ No
Is it part of the 715?	◯ Yes ◯ No
Is it an independent assessment?	◯ Yes ◯ No
Who is the assessment by?	◯ Health Worker ◯ GP ◯ Allied Health ◯ Nurse ◯ Other
Other - more details	_____
Is there evidence of the following components being assessed?	☐ Personal ADLs ☐ Instrumental ADLs ☐ Pain ☐ Falls ☐ Financial capacity ☐ Driving ☐ Other
Other - more detail	_____
Have concerns regarding function been raised?	◯ Yes ◯ No
Is there a Health Service response to concerns raised?	◯ Yes ◯ No
Health Service response - more details	_____

Appendix I

HAAT guide

Healthy Ageing
Guide for Audit Data Collection

About this guide

It is essential for all researchers undertaking data collection for the Healthy Ageing project to do so consistently and systematically, ensuring the data collected is reliable and valid. This guide sets out the procedures for collecting audit data.

Ethical practice

Before moving on to data collection for this project, it is essential to understand our intentions for ethical conduct in this research.

In this project, researchers will have access to personal and sensitive information about real people. It is essential to be mindful of this. We suggest the following principles to guide conduct:

- Hold information respectfully
- Respect privacy and confidentiality
- Respect difference and values

Data collection and the clinical audits

Who is going to be audited?

The number of health service patients to be audited will vary according to the health service. All patients that meet the inclusion criteria will be audited.
To be included in the audits, patients need to meet the following criteria:

1. Be over the age of 18 yrs.
2. Be resident of the community where the audit is being conducted
3. Have attended the health service for a face-to-face appointment or telehealth appointment within the last 12 months (this doesn't include a script or documentation being printed for the patient)

Preparing the Confidential Patient List

Access the electronic list of patients to be audited, from Rachel Quigley. This list includes the client's name, health service no., gender, DOB and age of the patient.
On creating a REDCap entry, you will create a unique study ID for each patient, this REDCap ID needs adding to the patient list.

For privacy and confidentiality reasons, this list will be saved in the appropriate JCU password protected file.

It is essential to maintain patient confidentiality and privacy while conducting audits. The confidential patient list must NOT be saved or copied onto any personal or work device or computer. When finished with each auditing session, you must first delete the patient list file from your computer (usually in a 'download' folder) and, secondly, delete the file from the 'recycle bin' on your computer desktop. In this way, the confidentiality of health service patients can be appropriately respected and protected.

Conducting the audit

The research team will spend some time at the beginning of the audits showing you how to navigate around the software. The software that is used within the PHCCs is Best Practice

Once you have your list of patients, you are ready to start the audits.

The table below provides detailed instructions on where to find the information required for each question in the audit tool and where appropriate clarification of what the question is asking.

Some required demographics can be found in 3 places in the record:

1. At the top of the open record is a band of some demographics that remains in view. (Often in Blue text) This has fields of name, DOB, gender, marital status, occupation, smoking status, and alcohol status. However, the fields are not always completed.
2. Under the left-hand side menu there is a tab titled '**Family/Social history'** If you click on that tab a box will open that has some of the same demographic fields in it. However, you may find that not all fields have been completed.
3. Some of this information may also be found in the clinical progress notes from the clinicians but it requires finding it as you read through the notes.

Another useful place to start searching for some of the fields from across the audit is in an Adult Health Assessment (billed as a 715) completed in the last 12 months.
The results of the health check are documented in 2 places:

1. In the clinical notes
2. Under the tab **Enhanced Primary Care** there is a secondary field **Health Assessments** this will have any completed health assessments filed there.

Clinical notes are found under the tab **'Past Visits'**

Record ID - Automatically Generated

SECTION 1		
Demographics		
Field	**Location in Chart**	**Comments**
Auditor		Insert your initials
Audit date		Insert date of audit (if you click on the 'Today' box it will

		automatically populate with today's date.
Age	At the top of the Open Chart in the demographic band under '**Age**'	
Sex	At the top of the Open Chart in the demographic band under '**Birth Sex**'	
Indigenous status	At the top of the Open Chart in the demographic band. Recorded under **'Ethnicity'**	
Marital status	In the '**Family/Social history'** tab	
Employment Status	At the top of the Open Chart in the demographic band under '**Occupation'** OR In the '**Family/Social history'** tab OR In the clinical notes	
Usual Living Arrangements	In the '**Family/Social history'** tab OR In the clinical notes	
Is overcrowding an issue for this client in their place of residence	In the clinical notes	
Is the client at risk of being homeless	In the clinical notes	
SECTION 2		
Attendance at health service		
Have any of the following MBS Item numbers been claimed in past 12 months (1st Audit only) or since the previous audit?	In the open chart click on the top tab labelled '**Open'** then click on **'Billing History'** A new window will open that has the billing history – you are looking for any of the listed numbers under the **MBS item**	There are often several billing items, but we are only looking for the ones that are listed here. However, if you see a billing that is relevant such as relating to chronic disease, case management, allied health, nursing etc., list it under *Other relevant claims*
Is there evidence that a 715 been completed in the last 12 months?	715 are located in 2 places: Just as clinical note entries, in Clinical notes but also under the tab **'Enhanced Primary Care'**	

	– expand to see the tab **'Health assessment'**	
Has this 715 been claimed	In the open chart click on the top tab labelled '**Open'** then click on **'Billing History'** A new window will open that has the billing history – you are looking for a billing for item number 715	Within the last 12 months.
SECTION 3		
DIAGNOSIS INFORMATION, COMPLICATIONS AND PROCEDURES		
Documented history of conditions	Open up the **'Past History'** tab. There is a list of **'Active'** and **'Inactive'** conditions. Check both	
Polypharmacy	Open up the **'Current Rx'** tab	Polypharmacy is when there are 5> medications prescribed. List medication name, dose, frequency etc
List of medications	In clinical notes OR MBS number 900 is a medication review so go to the clinical notes of the date that item was billed for more information.	
SECTION 4		
Risk Factors, Management and Review		
Smoking		
Current smoker	At the top of the Open Chart in the demographic band under '**Tobacco'** OR In the **'Family/Social history'** OR In the clinical notes	
(if yes) *Evidence of health service response*	In clinical notes OR In **'Correspondence out'** tab which may include a referral	

Comments		Free text to provide more information if available on the health service response
Alcohol		
Evidence of alcohol consumption above recommended guidelines or deemed high risk?	At the top of the Open Chart in the demographic band under '**Alcohol'** OR In the **'Family/Social history'** tab OR In the clinical notes	Recommend guidelines are: *healthy men and women should drink no more than 10 standard drinks a week and no more than 4 standard drinks on any one day.*
(if yes) *Evidence of health service response*	In clinical notes OR In **'Correspondence out'** tab which may include a referral	
Comments		Free text to provide more information if available on the health service response
Drugs		
Evidence of illicit drug use?	In the **'Family/Social history'** tab OR In the clinical notes	
(if yes) *Evidence of health service response*	In clinical notes OR In **'Correspondence out'** tab which may include a referral	
Comments		Free text to provide more information if available on the health service response
ABSOLUTE CARDIOVASCULAR RISK ASSESSMENT		
Is there a record of Absolute Cardiac Risk assessment in the last 2 years?	In the **'lipid Chemistry'** report under the '**Investigations reports'** tab OR In the clinical notes OR In the **'Observations'** table under CV risk	The CVD risk is sometimes (but not always) calculated and documented on the pathology report. The tool used is the NVDPA assessment of absolute cardiovascular disease
(if yes) *Which standard tool is used to calculate absolute cardiovascular risk (CVR) assessment?*		See above

If assessed, what is the recorded absolute cardiovascular risk (%)	In the **'lipid Chemistry'** report under the '**Investigations reports'** tab OR In the clinical notes	
Is there evidence of a health service response to a CVR of >10%?	In the clinical notes or correspondence section	
Obesity		
Is there a recorded height in the whole record (regardless of date)	In the '**Observations'** tab	For this value any recording irrelevant of date can be used
(if yes) *What is their height in cm?*	In the '**Observations'** tab	
Is there a recorded weight within the last 12 months?	In the '**Observations**' tab	Only within the last 12 months
(if yes) *What is their last recorded weight in kg?*	In the '**Observations**' tab	
Is there a record of Body Mass Index (BMI) in the last 12 months?	In the '**Observations**' tab	
(if yes) *What is the BMI recording?*	In the '**Observations**' tab	Only within the last 12 months
Have concerns been raised about obesity/overweight in the last 12 months?	In the clinical notes	
(if yes) *Evidence of health service response?*	In clinical notes OR In **'Correspondence out'** tab which may include a referral	
Comments		Free text to provide more information if available on the health service response
Nutrition		
Is there evidence of any concerns raised with nutrition?	In clinical notes	This refers to inadequate nutrition, underweight, malnutrition or poor diet that is not related to being overweight or obese.
(if yes) *Evidence of health service response to issues with nutrition?*	In clinical notes OR In **'Correspondence out'** tab which may include a referral	

Comments		Free text to provide more information if available on the health service response
Is there record of any issues with access to food?	In clinical notes	
Food access problem - more information		Free text to provide details
Physical Activity		
Is there documentation and/or assessment of physical activity?	In clinical notes	
(if yes) Are there concerns about the level of activity?	In clinical notes	
(if yes) *Evidence of health service response to concerns regarding physical activity levels?*	In clinical notes OR In **'Correspondence out'** tab which may include a referral	
Comments		Free text to provide more information if available on the health service response
SECTION 5		
Clinical Measurements/Investigations		
Blood Pressure		
Is there evidence of BP measurements in the last 12 months?	In the '**Observations**' tab OR In the clinical notes	
(if yes) *What is the BP recorded?*	In the '**Observations**' tab OR In the clinical notes	
Is the BP reading higher than 140/90?	In the '**Observations**' tab OR In the clinical notes	
(if yes) *Is there a documented management plan?*	In the clinical notes OR In the **GP management plan** that can be found in the '**Enhanced Primary Care'** tab	
Comments re management plan		Free text
Is there evidence that blood pressure medication was reviewed?	In the clinical notes - under **Actions** or **Plan**	N/A relates to cases where either BP was not taken, or BP was within normal limits (equal to or below 140/90

Urinalysis/Kidney function		
Evidence of urine dipstick test in the last 12 months?	In clinical notes	
Evidence of urine analysis in the last 12 months?	In clinical notes OR Under the '**Investigations'** tab look for a report that is titled **Urine Proteins**	
Is the most recent dipstick test/urine analysis positive to protein (1+ or more)?	In clinical notes OR Under the '**Investigations'** tab look for a report that is titled **Urine Proteins**	Normally results of a dipstick are recorded in the clinical notes whereas results of urine analysis are recorded in the Pathology results under the **Investigations** tab in a **Urine Proteins report**
Is there a record of ACR within the last 12 months?	Under the '**Investigations'** tab look for a report that is titled **Urine Proteins**	ACR stands for Albumin to Creatinine Ratio Normal range is <2.5 (Male) <3.5 (Female)
Was the ACR > 2.5 (male) or >3.5 (female)?		
Is there evidence of Health service response to high ACR?	In clinical notes	
Comments regarding Health Service response		
Is there a record of eGFR in the last 12 months?	Under the '**Investigations'** tab look for a report that is titled **General chemistry**	Stands for estimated Glomerular Filtration Rate Normal is above 90 but in this case not necessarily looking for a health service response if the >60 box is ticked.
Most recent eGFR range	a/a	
Is there evidence of a health service response to low eGFR	In the clinical notes OR In the **GP management plan** that can be found in the '**Enhanced Primary Care'** OR In **correspondence out** via an appropriate referral	
Health Service response - comments		
Blood Glucose level		
Evidence of blood glucose test (HbA1c) in the last 12 months?	Under the **Investigations** tab look for a report named **Diabetes monitoring**	

(if yes) *What was the most recent HbA1C reading in mmol?*	Under the **Investigations** tab look for a report named **Diabetes monitoring**	
(if yes) *What was the most recent HbA1C reading as a %?*	Under the **Investigations** tab look for a report named **Diabetes monitoring**	
Is the most recent blood glucose test (HbA1C) result >53 mmol or >7% ?	Under the **Investigations** tab look for a report named **Diabetes monitoring**	
(if yes) *Is there a documented management plan relating to abnormal HbA1C?*	In the clinical notes OR In the **GP management plan** that can be found in the '**Enhanced Primary Care'** OR In **correspondence out** via an appropriate referral	May include referral to dietician, or diabetes educator, or specialist.
Lipid profile		
Is there evidence of a lipid profile test in the last 12 months?	Under the **Investigations** tab look for a report named **Lipid Chemistry**	
(if yes) *Is LDL-C >2.5 mmol?*	Under the **Investigations** tab look for a report named **Lipid Chemistry**	A yes answer is an abnormal result. Abnormal results are recorded in red on the pathology report
(if yes) *Is HDL-C < 1.0 mmol?*	Under the **Investigations** tab look for a report named **Lipid Chemistry**	A yes answer is an abnormal result. Abnormal results are recorded in red on the pathology report
(if yes) *Is Triglycerides > 1.5 mmol?*	Under the **Investigations** tab look for a report named **Lipid Chemistry**	A yes answer is an abnormal result. Abnormal results are recorded in red on the pathology report
Is there a record of a Total Cholesterol/HDL ratio within the last 12 months?	Under the **Investigations** tab look for a report named **Lipid Chemistry**	
(if yes) *What was the most recent cholesterol/HDL ratio?*	Under the **Investigations** tab look for a report named **Lipid Chemistry**	
Was the ratio above 4.5mmol/L?		A ratio greater than 4.5 is considered a high risk for coronary heart disease. So, a result above this is an abnormal result. Abnormal results are recorded in red on the pathology report
(If yes to any of the above)	In the clinical notes	

Evidence of health service response to abnormal lipid findings?	OR In the **GP management plan** that can be found in the '**Enhanced Primary Care'** OR In **correspondence out** via an appropriate referral	
(If yes) *Response provided*		
Comments		Free text to provide more information if available on the health service response
Osteoporosis		
Is there evidence of an osteoporosis screen for eligible clients (postmenopausal women (regardless of age) and men over 50years of age)?	In the clinical notes OR In the **Investigations** tab OR In **'Correspondence In'** in the form of a report	
(if yes) *Is the client deemed high risk?*	In the clinical notes	
For those screened at high or moderate risk, is there evidence of further investigations been carried out?	In the clinical notes OR In **'Correspondence out'** in the form of a referral OR In the **Investigations** tab	
Has osteoporosis been diagnosed?	In the clinical notes OR **Past History- active**	
If osteoporosis has been diagnosed has non-pharmacological advice & interventions been provided?	In the clinical notes	
If osteoporosis has been diagnosed has chemoprophylaxis commenced?	In the clinical notes OR In the medications – **'Current Rx'**	
SECTION 6		
Systems Examinations		
Foot Check		
Is there evidence of a foot check?	In the clinical notes OR In the '**Adult Health Assessment'** found in the '**Enhanced Primary Care'** tab	In the last 12 months
(if yes) *Comments*		Free text to provide more information
Oral health		

Evidence that client has had a dental check in last 12 months *Includes: examination of teeth, gums, oral care e.g. teeth cleaning, toothache or bleeding gums*	In the clinical notes OR In the '**Adult Health Assessment'** found in the '**Enhanced Primary Care'** tab	
(if yes) *Dental check - more information of findings*		Free text to provide more information
Continence		
Is there evidence of continence screen within the last 12 months?	In the clinical notes OR In the '**Adult Health Assessment'** found in the '**Enhanced Primary Care'** tab	
(if yes) *Are there any concerns with continence?*	In the clinical notes OR In the '**Adult Health Assessment'** found in the '**Enhanced Primary Care'** tab	
(if yes) *What are the concerns?*	In the clinical notes OR In the '**Adult Health Assessment'** found in the '**Enhanced Primary Care'** tab	Free text to provide more information
Is there evidence of referral for further assessment/intervention?	In the clinical notes OR In **'Correspondence out'** tab in the form of a referral	
(if yes) *What was the intervention?*		Free text to provide more information
Eye Examination		
Evidence of eye condition screening within the last 12 months?	In the clinical notes OR In the **'Adult Health Assessment'** found in the **'Enhanced Primary Care' tab** OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** in the form of an assessment report	

Comments		Free text to provide more information
Have concerns been raised with eye/ vision?	In the clinical notes	
(if yes) has action been taken to address concerns?	In the clinical notes OR In '**Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** in the form of an assessment report	
More information on action taken		Free text to provide more information
Hearing		
Has a hearing test been conducted within the last 12 months?	In the clinical notes OR In the **'Adult Health Assessment'** found in the **'Enhanced Primary Care'** tab OR In '**Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Have concerns been raised with hearing?	In the clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
(if yes) Have actions been taken to address concerns?	In the clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	

Comments on actions		
Skin check		
Is there evidence of a skin check?	In the clinical notes OR In the **'Adult Health Assessment'** found in the **'Enhanced Primary Care'** tab	In the last 12 months
Have concerns been raised regarding skin?	In the clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
(If yes) have actions been taken with concerns raised?	In the clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Comments		Free text
Section 7		
Scheduled services		
Immunisation Status		
Evidence of Influenza vaccination within the last 12 months?	In the **Immunisations** tab	
Evidence of current Pneumococcal vaccinations?	In the **Immunisations** tab	Pneumococcal is current if received as a child then have a booster when >50 years of age OR 2 doses after the age of 50
Evidence of COVID-19 vaccination?	In the **Immunisations** tab	Partial if only had 1 or 2 doses.
Other tests		
Documentation of pulse rate & rhythm in the last 12 months?	In the '**Observations**' tab under the **'Pulse'** field OR In the clinical notes	
Documentation of cervical screening test (HPV)?	In the **Cervical screening** tab	Women aged 25 to 74 years of age should have a screening

		test **every 5 years**. Check the date of the last test.
Documentation of mammography?	In the clinical notes OR In the **'Investigations'** tab see report titled **mammogram** or **Xray report** OR In **'Correspondence in'** in the form of a report	Recommended every 2 years over the age of 50yrs
Documentation of sexual & reproductive health discussion?	In the clinical notes	In the last 12 months
Section 8		
Emotional wellbeing care		
Is there record of screening for emotional wellbeing using a standard tool in the last 12 months?	In the Clinical notes OR In the **'Observations'** tab	Tools listed in the Observation tab may include the DASS21 for depression, Anxiety, Stress or the K10. Look in the corresponding clinical notes for comments on test results.
What tool was used?	In the Clinical notes OR In the **'Observations'** tab	
What was the score?	In the Clinical notes OR In the **'Observations'** tab	
Is there any documented questions (not a tool) regarding emotional wellbeing in the last 12 months?	In the Clinical notes	If no tool was used were there discussion with someone and questions asked?
Have any concerns been raised about emotional wellbeing as aresult of questions or tools used?	In the Clinical notes	
(if yes) Is there evidence of a Health Service response to concerns raised?	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Other - more information		Free text

If there are recommendations from an external service have they been implemented?	In the Clinical notes OR In **'Correspondence in'** tab in the form of an assessment report	
What is the implementation - more details		Free text
Family Relationships		
Is there evidence of risk within the last 12 months that requires client to be linked in with social services?	In the Clinical notes	
Comments		Free text to provide more information
Social		
Evidence of social interactions	In the Clinical notes	
Section 9		
Cognitive Function		
Since the client turned 45 years of age, have concerns about memory, confusion, or thinking problems been raised?	In the Clinical notes	This question is only relevant for those that are aged 45 years and above. For those younger tick N/A
Who raised the concern?	In the Clinical notes OR In the **'Adult Health Assessment'** found in the **'Enhanced Primary Care'** tab	
(if other) *Comments?*		Document who raised concerns if they are not listed in the tick box option
Since the client turned 45 years of age, is there evidence of assessment of cognition?	In the Clinical notes OR In the **'Adult Health Assessment'** found in the **'Enhanced Primary Care'** tab OR In the **'Observation'** tab – **MMSE**	This may be just free notes in the clinical notes following questions by the GP or Health worker, or allied health clinician, or memory questions asked in the health assessment, or a tool used and recorded in the observations tab. N/A would be for clients under 45 yrs
Which cognitive assessment tool was used?	In the Clinical notes OR In the **'Adult Health Assessment'** found in the **'Enhanced Primary Care'** tab	

	OR In the **'Observation'** tab – **MMSE**	
What was the test score?	In the Clinical notes OR In the **'Adult Health Assessment'** found in the **'Enhanced Primary Care'** tab OR In the '**Observation**' tab – MMSE	
Outcome of cognitive assessment - comments	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Has a diagnosis been documented?	In the Clinical notes OR In the **'Past History'** tab	
For those clients where concerns have been raised or assessment of cognition has been performed, is there evidence of investigations related to CI e.g. CT-Brain, MRI-Brain, lab investigations	In the Clinical notes OR In the **'Investigation Reports'** tab OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	The reason for having the test must specify that it relates to concerns with memory or confusion etc
What investigation was done?	In the Clinical notes OR In the **'Investigation Reports'** tab OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Is there documentation of any BPSD (wandering, aggression, disinhibition?	In the Clinical notes	This only relates to someone where memory problems or a dementia diagnosis has been

		documented – otherwise it is N/A
What was the behaviour?	In the Clinical notes	Free text to document findings
Has the client been referred <u>to</u> a specialist?	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	This only relates to someone where memory problems or a dementia diagnosis has been documented – otherwise it is N/A
What specialist?	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Is there evidence they have seen a specialist?	In the Clinical notes OR In '**Correspondence in'** tab in the form of an assessment report	
Date seen by specialist	In the Clinical notes OR In '**Correspondence in'** tab in the form of an assessment report	
If referred to a specialist is there a record of a report from the specialist?	In **'Correspondence in'** tab in the form of an assessment report	
Did the specialist make recommendations?	In the Clinical notes OR In '**Correspondence in'** tab in the form of an assessment report	
What recommendations were made?	In the Clinical notes OR In '**Correspondence in'** tab in the form of an assessment report	
If recommendations are made by the specialist is	In the Clinical notes OR	

there evidence they have been actioned?	In '**Correspondence in'** tab in the form of an assessment report	
Is there evidence of assessment of decision-making capacity?	In the Clinical notes	
Decision-making capacity - more information	In the Clinical notes	Free text
Is there evidence that a proxy decision-maker or EPOA (Enduring Power of Attorney) been appointed or discussed?	In the Clinical notes OR In **'Correspondence in'** tab in the form of an assessment report	The social workers can assist with completing these documents so may have uploaded documentation
Is there evidence of discussions around [EOL etc.]	In the Clinical notes OR In **'Correspondence in'** tab in the form of an assessment report	The social workers can assist with completing these documents so may have uploaded documentation N/A can be ticked for clients younger than 40 years
Section 10		
Support Services		
Has a referral to My Aged Care been made?	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	Looking for evidence of the referral so **Yes** – referral documented **No** – discussions but documented that no referral made **N/A** – client under 45 years **Unknown** – client in appropriate age range but no evidence in the chart around discussions or referrals
Date of the referral	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Has the client had a RAS assessment?	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR	Looking for evidence of the referral so **Yes –** referral documented No – discussions but documented that no referral made

	In **'Correspondence in'** tab in the form of an assessment report	N/A – client under 45 years **Unknown** – client in appropriate age range but no evidence in the chart around discussions or referrals
Date of the referral	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Has the client had an ACAT assessment?	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	Looking for evidence of the referral so **Yes** – referral documented **No** – discussions but documented that no referral made **N/A** – client under 45 years **Unknown** – client in appropriate age range but no evidence in the chart around discussions or referrals
Date of the referral	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Does the client receive aged care services?	In the Clinical notes	
What, are the services?	In the Clinical notes	
Does the client receive other support services?	In the Clinical notes	
(if yes) *specify*	In the Clinical notes	Free text to document services being received
What support services are in place?	In the Clinical notes	
other	In the Clinical notes	Free text to document services being received
Section 11		
Allied Health Support		

Is there evidence of allied health involvement?	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Type of allied health involvement	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Type of intervention	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral OR In **'Correspondence in'** tab in the form of an assessment report	
Section 12		
Functional Assessment		
Is there evidence that a functional assessment has been carried out?	In the Clinical notes OR In **'Correspondence in'** tab in the form of an assessment report OR In the **'Adult Health Assessment'** found in the **'Enhanced Primary Care'** tab	In the last 12 months
Is it part of the 715?	In the **'Adult Health Assessment'** found in the **'Enhanced Primary Care'** tab	The 715 is the adult Health Assessment

Is it an independent assessment?	In the Clinical notes OR In **'Correspondence in'** tab in the form of an assessment report	Looking for clinical note entry by Allied Health, nursing or health worker
Who is the assessment by	In the Clinical notes OR In **'Correspondence in'** tab in the form of an assessment report	
Is there evidence of the following components being assessed?	In the Clinical notes OR In **'Correspondence in'** tab in the form of an assessment report	Looking for clinical note entry by Allied Health, nursing or health worker
Other		Free text to describe other
Have concerns regarding function been raised?	In the Clinical notes OR In **'Correspondence in'** tab in the form of an assessment report	
Is there a Health Service response to concerns raised?	In the Clinical notes OR In **'Correspondence in'** tab in the form of an assessment report OR In **'Correspondence out'** tab in the form of a referral	
Health Service response - more details	In the Clinical notes OR In **'Correspondence out'** tab in the form of a referral	
Form Status		
Complete?		Use drop down box to select complete once audit completed Then save and exit form

Appendix J

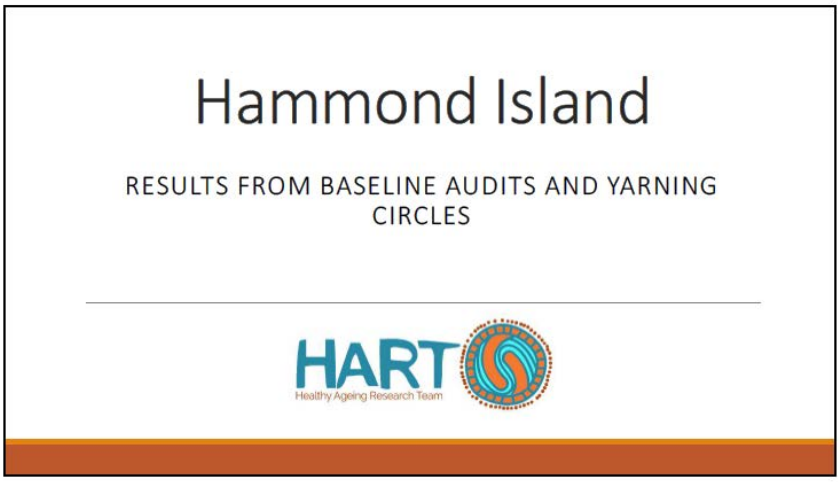
Public Health Act—Waiver of consent

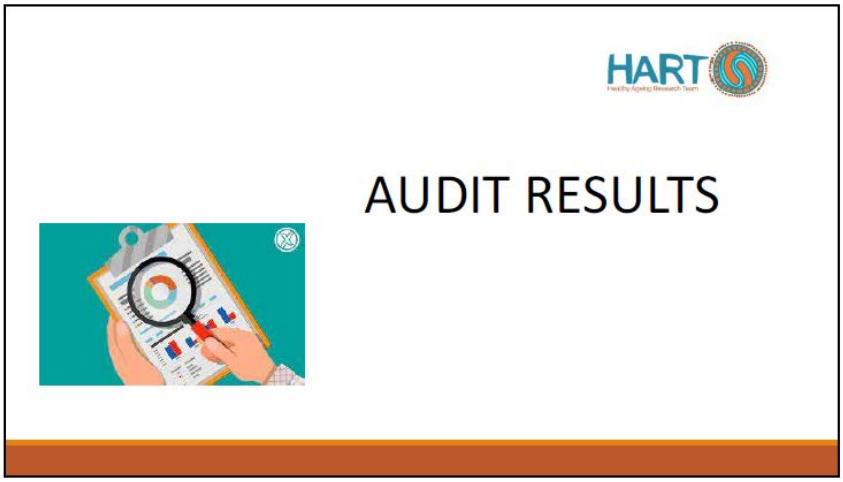
This administrative form has been removed

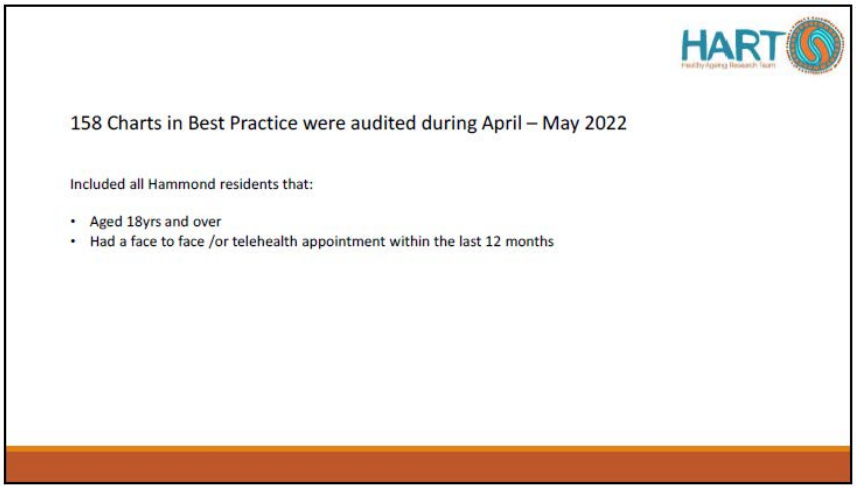
This administrative form
has been removed

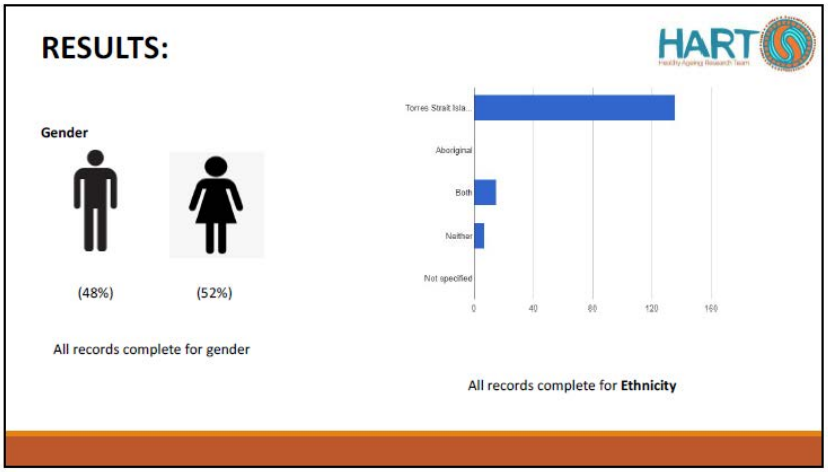
Appendix K

Data summary—example



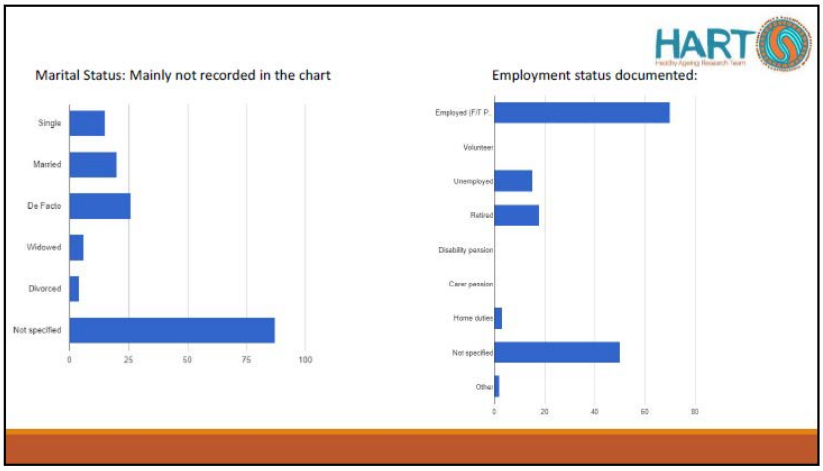




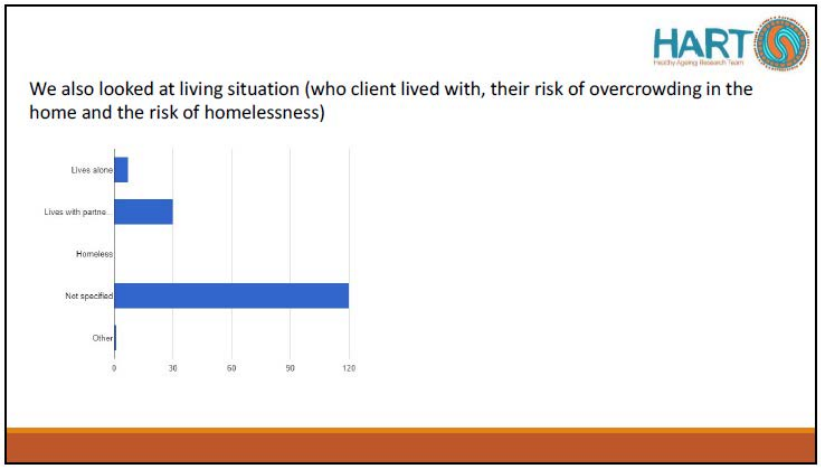


Male (76, 48.1%), Female (82, 51.9%)

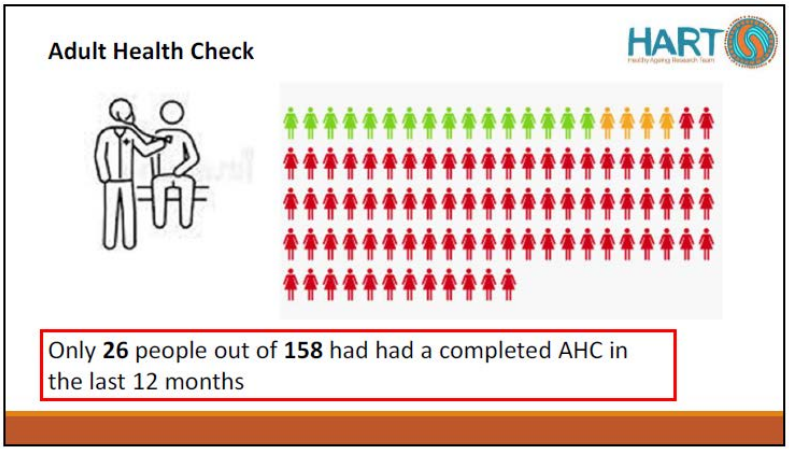
Torres Strait Islander (136, 86.1%), Aboriginal (0, 0.0%), Both (15, 9.5%), Neither (7, 4.4%),



Marital status missing for 55% 0f clients
Employment not specified in 32% of clients

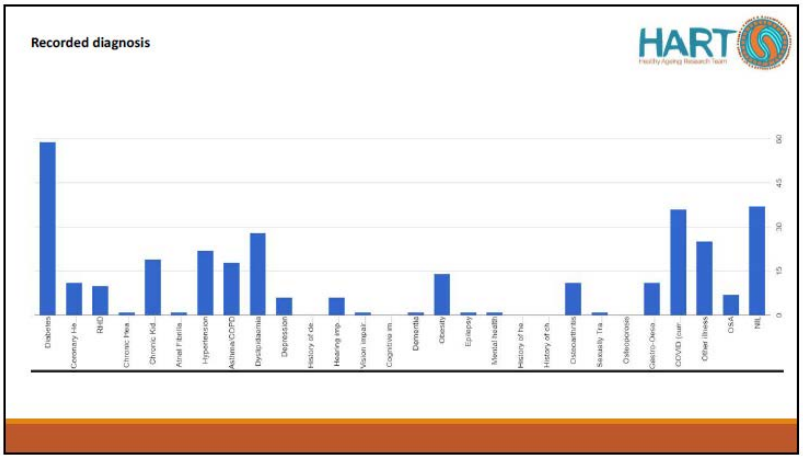


76% charts did not document who the client lived with in the social demographic section and over 90% charts made no reference to whether the client had a safe place to reside.

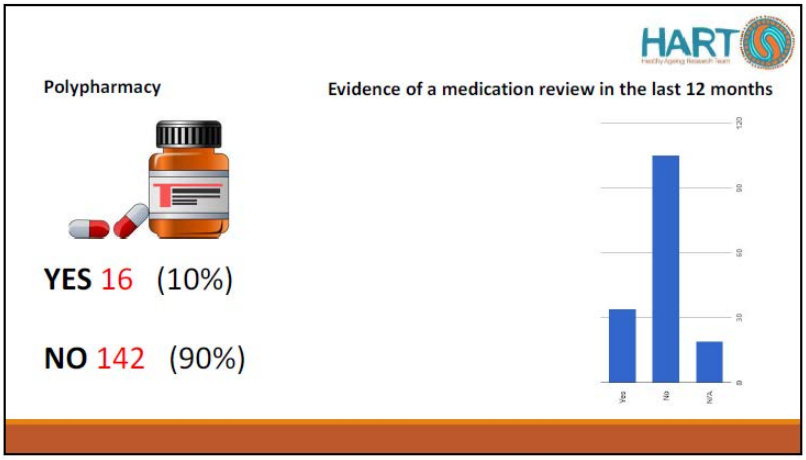


Figures above shown as a percentage:

Yes (26, 16.5%),
Partial completion / draft (6, 3.8%),
No (126, 79.7%)



Biggest disease is diabetes with 59 people (37%) However 24% (37 people) had no disease diagnosis

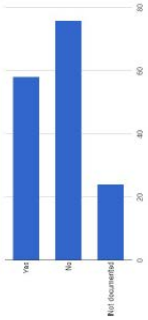


Medication review: Yes (34, 21.5%), No (105, 66.5%), N/A (19, 12.0%)

N/A applied to those that had no diagnosis and were on no medications

SMOKING

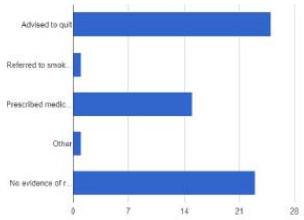
Not recorded for **24** people (15%)



Yes (58, 36.7%), No (76, 48.1%), Not documented (24, 15.2%)

SMOKING

Health Service Response to those **58** people that are smokers

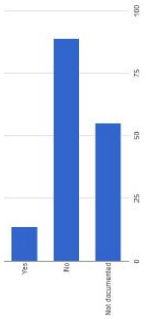


In **40%** of those that smoke there was **no** evidence of any action been taken

Advised to quit (25, 43.1%), Referred to smoking cessation program (1, 1.7%), Prescribed medication (15, 25.9%), Other (1, 1.7%), No evidence of response (23, 39.7%)

Alcohol consumption above recommended guidelines or deemed high risk

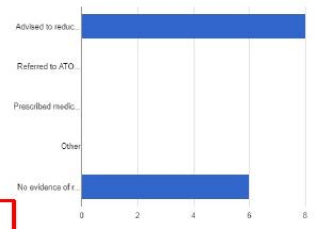
Not recorded for **55** people (35%)



Yes (14, 8.9%), No (89, 56.3%), Not documented (55, 34.8%)

Alcohol consumption above recommended guidelines or deemed high risk

Health Service response to those **14** people that drank above the recommended limits



In **43%** of those that drank above the guidelines there was **no** evidence of any action been taken

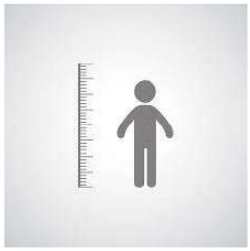
Advised to reduce intake and discussion on healthy limits etc (8, 57.1%),
Referred to ATODS or other program (0, 0.0%),
Prescribed medication (0, 0.0%),
Other (0, 0.0%),
No evidence of response (6, 42.9%)

Cardiovascular risk assessment

Only **7** people (4.5%) had had a CVR assessment within the last 2 years

Yes (7, 4.4%),
No (151, 95.6%)

Recorded height in the chart

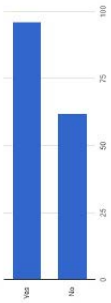


Yes 123

No 35

Yes (123, 77.8%),
No (35, 22.2%)

Recorded weight in the chart within the last 12 months

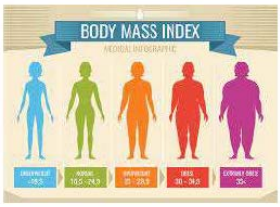


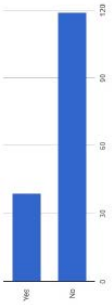
Yes 96

No 62

Yes (96, 60.8%),
No (62, 39.2%)

Recorded BMI in the last 12 months





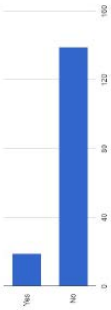
Yes 39

No 119

Yes (39, 24.7%),

No (119, 75.3%)

Have concerned been raised about obesity / overweight in the last 12 months?

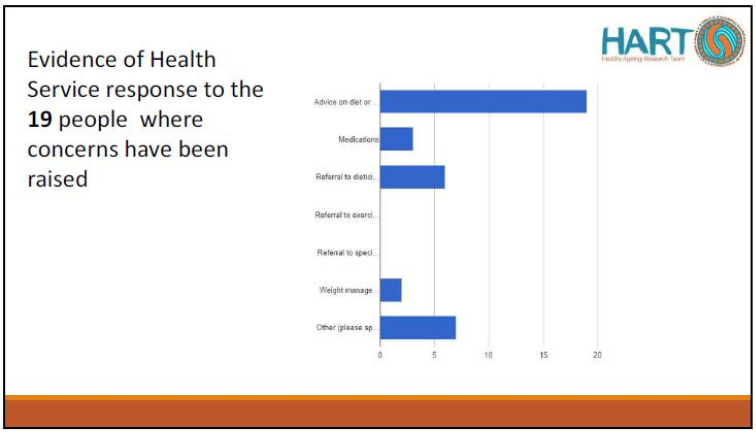


Yes 19

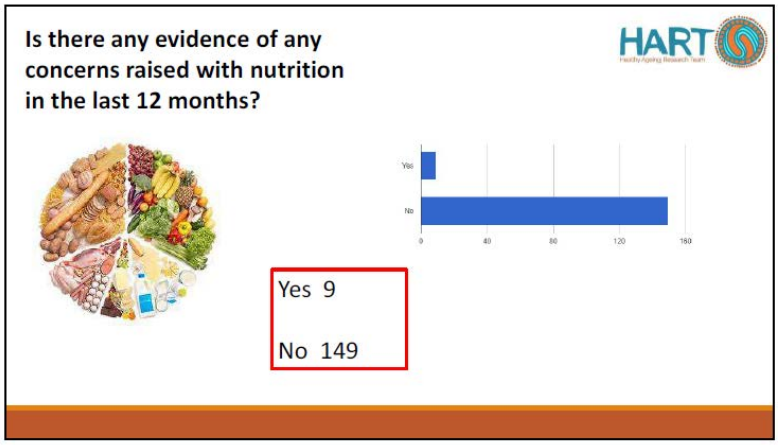
No 139

Yes (19, 12.0%),
No (139, 88.0%)

Although at a later stage we will be able to calculate the BMIs based on height and weight to see if they are in the Obese range and compare to see if any Health service response to those that are

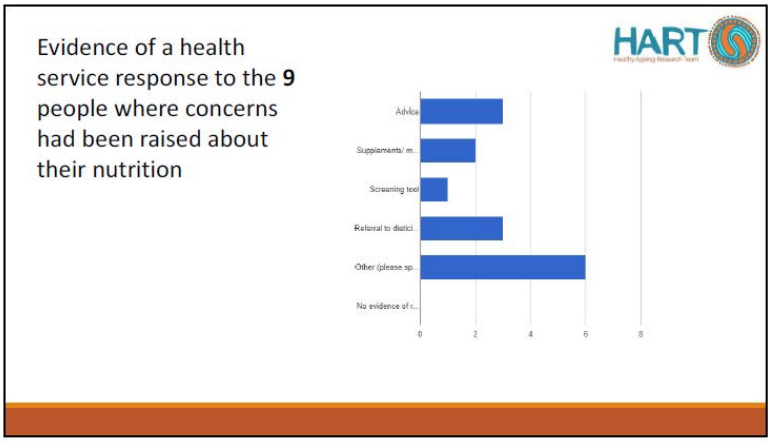


Advice on diet or exercise or healthy eating or healthy lifestyle (19, 100.0%),
Medications (3, 15.8%),
Referral to dietician (6, 31.6%),
Referral to exercise physiologist (0, 0.0%),
Referral to specialist (0, 0.0%),
Weight management plan (2, 10.5%),
Other (please specify below) (7, 36.8%)



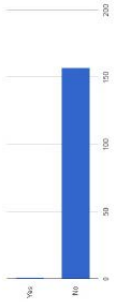
Yes (9, 5.7%),

No (149, 94.3%)



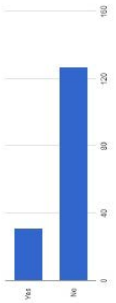
Advice (3, 33.3%),
Supplements/ medications (2, 22.2%),
Screening tool (1, 11.1%),
Referral to dietician (3, 33.3%),
Other (please specify below) (6, 66.7%),
No evidence of response (0, 0.0%)

We also looked for documented about issues with access to food



Yes (1, 0.6%),
No (157, 99.4%)

Is there documentation and/or assessment of physical activity?



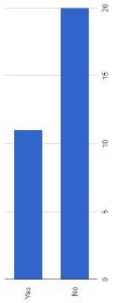
Yes 31

No 127

Yes (31, 19.6%),

No (127, 80.4%)

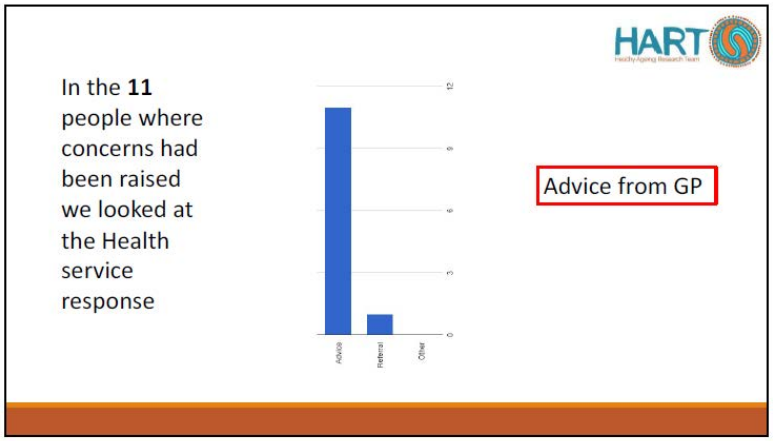
In the **31** people where there was an assessment done we looked to see if there were concerns about the level of activity **Or** if the assessment / documentation indicated low exercise levels / inactivity



Yes 11

No 20

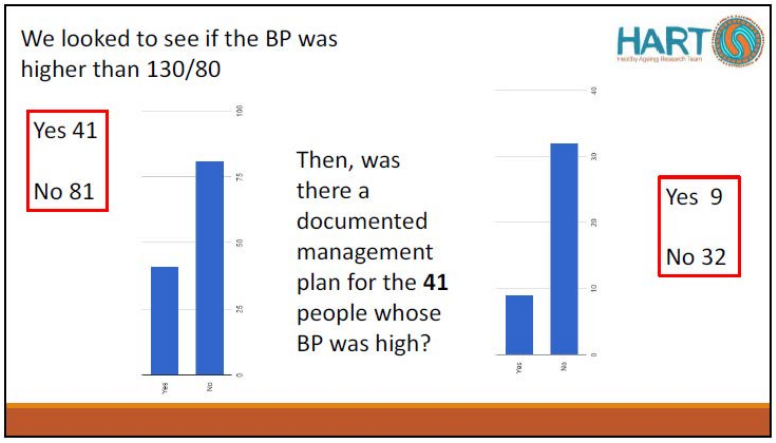
Yes (11, 35.5%),
No (20, 64.5%)



Advice (11, 100.0%),
Referral (1, 9.1%),

Yes (122, 77.2%),

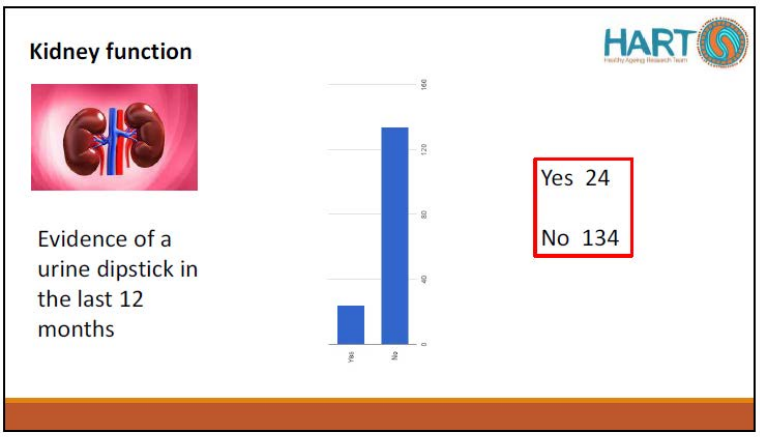
No (36, 22.8%)



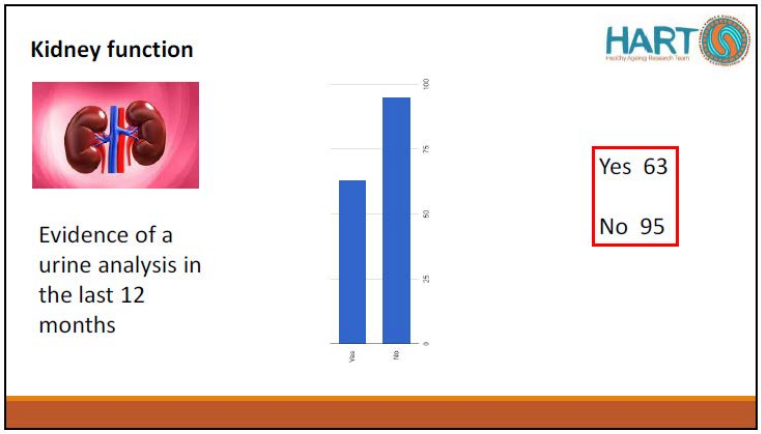
BP higher than 130/80? Yes (41, 33.6%), No (81, 66.4%)

Documented management plan? Yes (9, 22.0%), No (32, 78.0%)

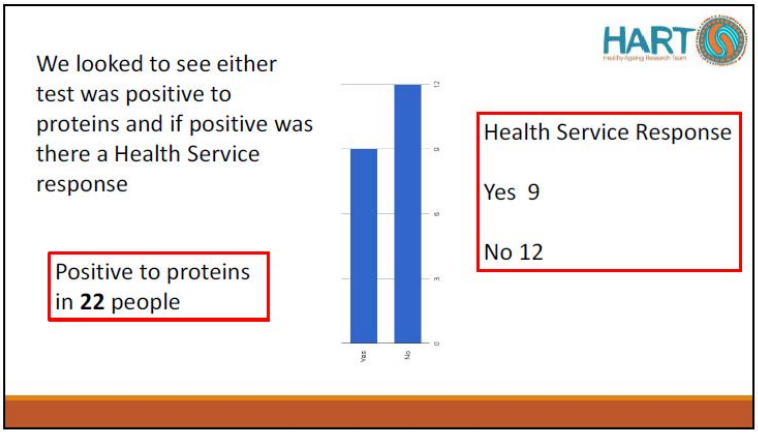
We also asked if BP medication had been reviewed? Yes (14, 8.9%), No (36, 22.8%), N/A (108, 68.4%)= didn't have high BP



Yes (24, 15.2%), No (134, 84.8%)



Yes (63, 39.9%), No (95, 60.1%)



Positive to proteins Yes (22, 34.4%), No (42, 65.6%), Not specified (0, 0.0%)

Health service response Yes (9, 42.9%), No (12, 57.1%)

We also looked to see if an ACR had been taken in the last 12 months and where results were high was there a Health service response?

ACR taken in last 12 months?	Was the ACR > 2.5 (male) or >3.5 (female)?	Is there evidence of Health service response to high ACR?
Yes 53	Yes 14	Yes 5
No 105	No 39	No 9

Is there a record of ACR within the last 12 months? Yes (53, 33.5%), No (105, 66.5%)

Was the ACR > 2.5 (male) or >3.5 (female)? Yes (14, 26.4%), No (39, 73.6%)

Is there evidence of Health service response to high ACR? Yes (5, 35.7%), No (9, 64.3%)

We also looked to see if an eGFR had been taken in the last 12 months and where results were abnormal was there a Health service response?

Is there a record of eGFR?		Is there evidence of a Health Service response to low eGFR? (<60)
Yes 82	8 people had results of 60 or less	Yes 3
No 76		No 5

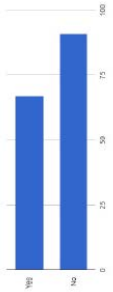
Is there a record of eGFR in the last 12 months? Yes (82, 51.9%), No (76, 48.1%)

Most recent eGFR range >60 (74, 90.2%), 30-59 (7, 8.5%), 14-29 (1, 1.2%), < 15 (0, 0.0%),

Is there evidence of a Health Service response to low eGFR? Yes (3, 37.5%), No (5, 62.5%)

Blood Glucose levels

Evidence of blood glucose test (HbA1c) in the last 12 months?



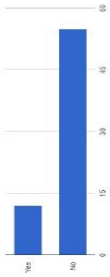
Yes 67

No 91

Evidence of blood glucose test (HbA1c) in the last 12 months? Yes (67, 42.4%), No (91, 57.6%)

Blood Glucose levels

We looked at the most recent HbA1C readings in mmol and as a % and looked to see if the levels were >53mmol or >7%



In the **67** people that had a test, levels were higher than normal in **12** people

In those **12** people there was a Health Service response to **7** of the cases

Is the most recent blood glucose test (HbA1C) result >53 mmol or >7% ? Yes (12, 17.9%), No (55, 82.1%)

If HbA1C is >53mmol or >7% is there evidence of a Health Service response? Yes (7, 58.3%), No (5, 41.7%)

Lipid profile

We looked to see if
- LDL-C > 2.5mmol
- HDL-C <1.0mmol
- Triglycerides were >1.5mmol
- Total Cholesterol/HDL ratio

Is there evidence of a lipid profile test in the last 12 months?

Yes 68

No 90

Is there evidence of a lipid profile test in the last 12 months? Yes (68, 43.0%), No (90, 57.0%)

Is LDL-C >2.5 mmol? Yes (41, 60.3%), No (27, 39.7%)

Is HDL-C < 1.0 mmol? Yes (12, 17.6%), No (56, 82.4%)

Is Triglycerides > 1.5 mmol? Yes (29, 43.3%), No (38, 56.7%)

Is there a record of a Total Cholesterol/HDL ratio within the last 12 months? Yes (68, 43.0%), No (90, 57.0%)

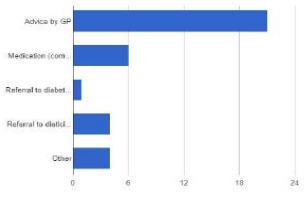
Was the ratio above 4.5mmol/L? Yes (20, 29.4%), No (48, 70.6%)

Lipid profile

Of the **57** people with abnormal findings we asked if there was a health service response

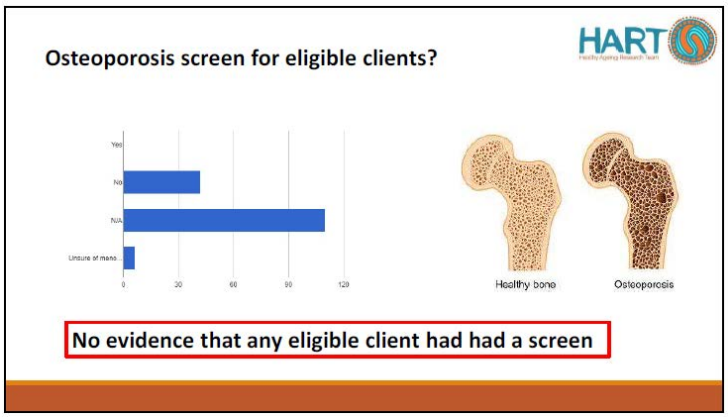
Yes 25

No 32

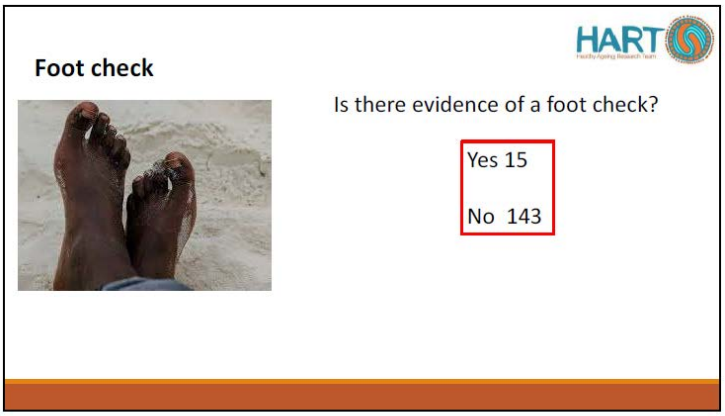


Is there evidence of health service response to abnormal lipid findings? Yes (25, 43.9%), No (32, 56.1%)

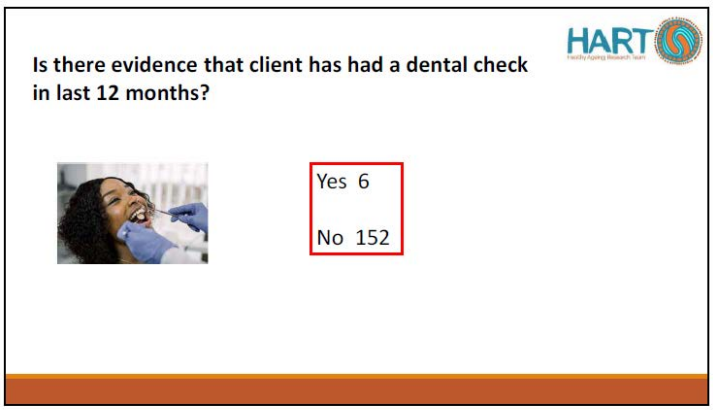
Response: Advice by GP (21, 84.0%),
Medication (commenced / changed) (6, 24.0%),
Referral to diabetes educator (1, 4.0%),
Referral to dietician (4, 16.0%),
Other (4, 16.0%)



Is there evidence of an osteoporosis screen for eligible clients (postmenopausal women (regardless of age) and men over 50 years of age)? Yes (0, 0.0%), No (42, 26.6%), N/A (110, 69.6%), Unsure of menopausal status of female (6, 3.8%)



Is there evidence of a foot check? Yes (15, 9.5%), No (143, 90.5%)



Is there evidence that client has had a dental check in last 12 months? Includes: examination of teeth, gums, oral care e.g teeth cleaning, toothache or bleeding gums? Yes (6, 3.8%), No (152)

Continence

Is there evidence of continence screen within the last 12 months?

Yes 14

No 144

In the 14 screens, were any concerns with continence?

Yes 1

No 13

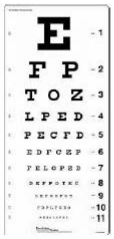
Is there evidence of referral for further assessment/intervention?

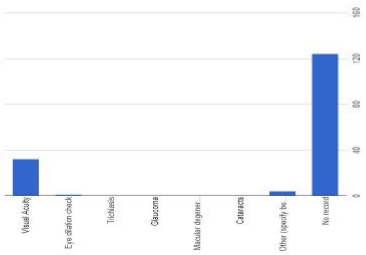
No

Is there evidence of continence screen within the last 12 months? Yes (14, 8.9%), No (144, 91.1%)
Are there any concerns with continence? Yes (1, 7.1%), No (13, 92.9%)
Is there evidence of referral for further assessment/intervention? Yes (0, 0.0%), No (1, 100.0%)

Eye checks

Is there evidence of eye condition screening within the last 12 months?





Is there evidence of eye condition screening within the last 12 months? visual Acuity (32, 20.4%),
Eye dilation check (1, 0.6%),
Trichiasis (0, 0.0%),
Glaucoma (0, 0.0%),
Macular degeneration (0, 0.0%),
Cataracts (0, 0.0%),
Other (specify below) (4, 2.5%),
No record (124, 79.0%)

Also asked if any concerns raised Yes (1, 0.6%), No (157, 99.4%) and if action taken Yes (1, 100.0%), No (0, 0.0%)

Hearing assessment

Has a hearing test been conducted within the last 12 months?

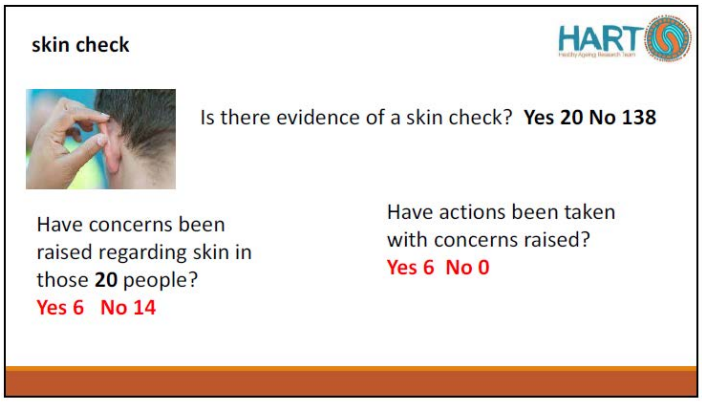
Yes 10

No 148

Concern raised in **4** people with the Health Service taking action in all **4** cases

Has a hearing test been conducted within the last 12 months? Yes (10, 6.3%), No (148, 93.7%)

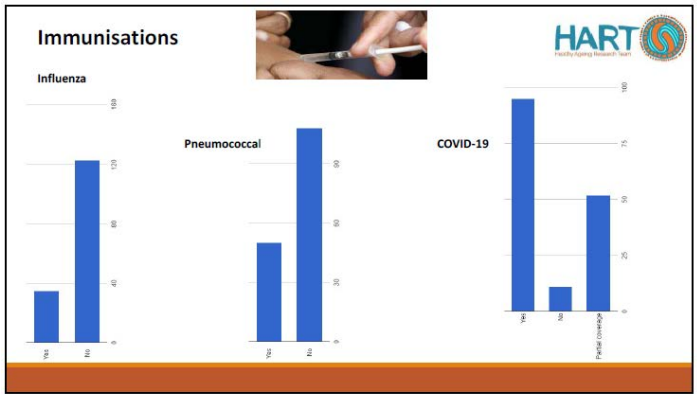
Have concerns been raised with hearing? Yes (4, 40.0%), No (6, 60.0%)
Have actions been taken to address concerns? Yes (4, 100.0%), No (0, 0.0%)



Is there evidence of a skin check? Yes (20, 12.7%), No (138, 87.3%)

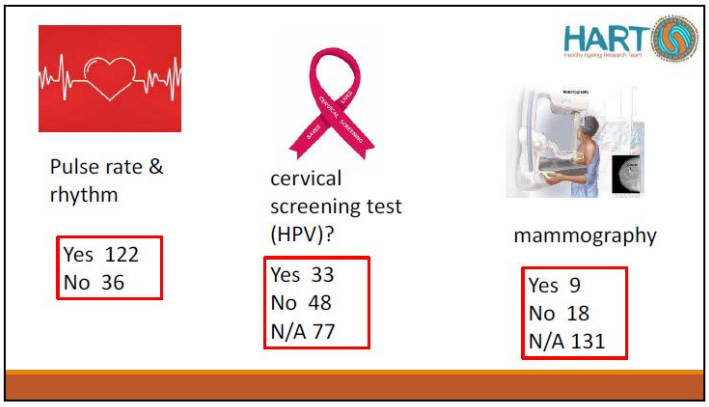
Have concerns been raised regarding skin? Yes (6, 30.0%), No (14, 70.0%)

Have actions been taken with concerns raised Yes (6, 100.0%), No (0, 0.0%)



Is there evidence of Influenza vaccination within the last 12 months? Yes (35, 22.2%), No (123, 77.8%)

Is there evidence of current Pneumococcal vaccinations? Yes (50, 31.6%), No (108, 68.4%)
Is there evidence of COVID-19 vaccination? Yes (95, 60.1%), No (11, 7.0%), Partial coverage (52, 32.9%)

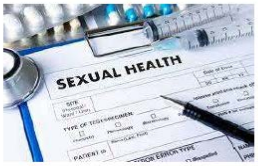


Is there documentation of pulse rate and rhythm in the last 12 months? Yes (122, 77.2%), No (36, 22.8%)
Is there documentation of cervical screening test (HPV)? Yes (33, 20.9%), No (48, 30.4%), N/A (77, 48.7%)
Is there evidence of mammography? Yes (9, 5.7%), No (18, 11.4%), N/A (131, 82.9%)

Is there evidence of discussion around sexual / reproductive health?

Yes 42

No 116



Is there evidence of discussion around sexual / reproductive health? Yes (42, 26.6%), No (116, 73.4%)

SEWB

Is there record of screening for emotional wellbeing using a standard tool in the last 12 months? **Yes 22 No 136**

Is there any documented questions (not a tool) regarding emotional wellbeing in the last 12 months? **Yes 9 No 148**

Have any concerns been raised about emotional wellbeing as a result of questions or tools used? **Yes 9 No 18**

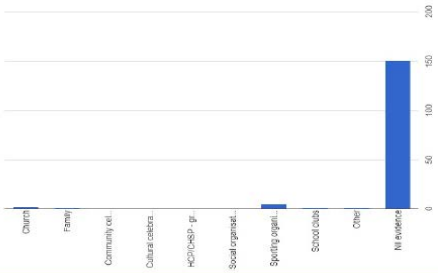
Is there evidence of a Health Service response to concerns raised?
Referral to a mental health service 6
Medications 1
Referral to a SEWB service 5
Other 5

Is there record of screening for emotional wellbeing using a standard tool in the last 12 months? Yes (22, 13.9%), No (136, 86.1%)

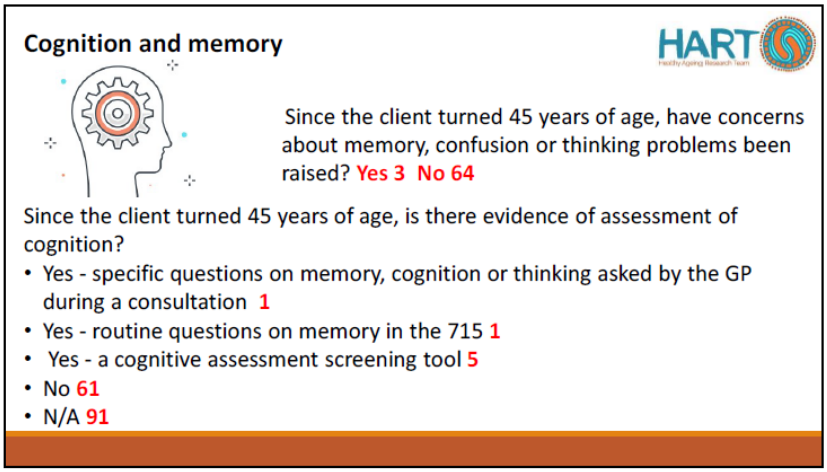
Is there any documented questions (not a tool) regarding emotional wellbeing in the last 12 months? Yes (9, 5.7%), No (148, 94.3%)
Have any concerns been raised about emotional wellbeing as a result of questions or tools used? Yes (9, 5.7%), No (18, 11.4%), N/A (no questions asked or tools used) (131, 82.9%)

Is there evidence of a Health Service response to concerns raised? Referral to a mental health service (6, 66.7%), Medications (1, 11.1%), Referral to SEWB service (5, 55.6%), Other (5, 55.6%), No actions recorded (0, 0.0%)

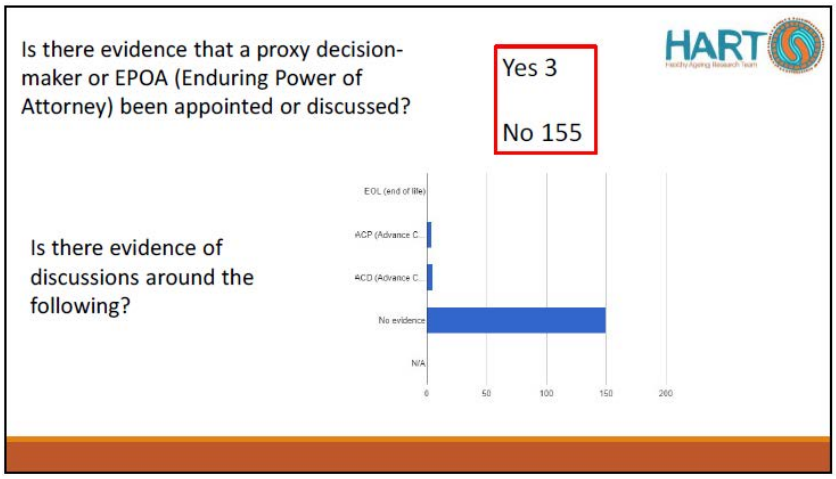
Evidence of social interactions



Evidence of social interactions
Church (2, 1.3%),
Family (1, 0.6%),
Community celebrations / groups (0, 0.0%),
Cultural celebrations /connections (0, 0.0%),
HCP/CHSP - group activity (0, 0.0%),
Social organisations or club (0, 0.0%),
Sporting organisation or club (5, 3.2%),
School clubs (1, 0.6%),
Other (1, 0.6%),
Nil evidence (151, 95.6%)



Since the client turned 45 years of age, have concerns about memory, confusion or thinking problems been raised? Yes (3, 1.9%), No (64, 40.5%), N/A (under 45) (91, 57.6%)
Since the client turned 45 years of age, is there evidence of assessment of cognition?
Yes - specific questions on memory, cognition or thinking asked by the GP during a consultation (1, 0.6%),
Yes - routine questions on memory in the 715 (1, 0.6%),
Yes - a cognitive assessment screening tool (5, 3.2%),
No (61, 38.6%),
N/A (under 45) (91, 57.6%)
Which cognitive assessment tool was used? MMSE (2, 40.0%), KICA (2, 40.0%), Clock Test (0, 0.0%), GP-Cog (0, 0.0%), Mini-cog (0, 0.0%), RUDAS (0, 0.0%), MoCA (0, 0.0%), ACE-III (0, 0.0%), Other (2, 40.0%)
For those clients where concerns have been raised or assessment of cognition has been performed is there evidence of investigations related to CI eg. CT-Brain, MRI-Brain, lab investigations? Yes (1, 14.3%), No (5, 71.4%), N/A (1, 14.3%)
Has the client been referred to a specialist? Yes (3, 1.9%), No (1, 0.6%), N/A (under 45 or no concerns raised to warrant referral) (154, 97.5%)
What specialist? : Geriatrician (3, 100.0%), Psychiatrist (0, 0.0%), Other (0, 0.0%)
Is there evidence they have seen a specialist ? Yes (3, 100.0%), No (0, 0.0%)
If referred to a specialist, is there a record of a report from the specialist? Yes (3, 100.0%), No (0, 0.0%)
Did the specialist make recommendations? Yes (3, 100.0%), No (0, 0.0%)
If recommendations are made by the specialist is there evidence they have been actioned? Yes (2, 66.7%), No (1, 33.3%)
Is there evidence of assessment of decision-making capacity? Yes (1, 0.6%), No (4, 2.5%), N/A (no dementia /CI diagnosis) (153, 96.8%)



Is there evidence that a proxy decision-maker or EPOA (Enduring Power of Attorney) been appointed or discussed? Yes (3, 1.9%), No (155, 98.1%),
Is there evidence of discussions around the following? EOL (end of life) (0, 0.0%), ACP (Advance Care Planning) (4, 2.5%), ACD (Advance Care Directive) (5, 3.2%), No evidence (150, 94.9%),

Support services

Has a referral to My Aged Care been made? Yes-2 No-3 Unknown-62 (N/A-91)

Has the client had a RAS assessment? Yes- 0 No-3 Unknown- 64 (N/A -91)

Has the client had an ACAT assessment? Yes-2 No-3 Unknown-62 (N/A- 91)

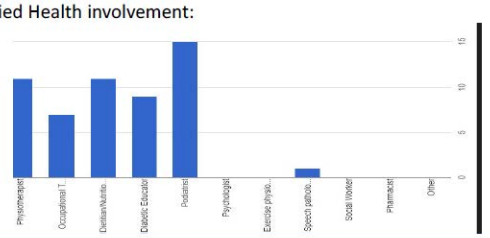
Does the client receive aged care services? Yes-0 No-6 Unknown-62 (N/A-91)

Does the client receive other support services? Yes- 0 No-23 Unknown-135

Allied Health involvement

Is there evidence of allied health involvement? Yes 35 No 123

Type of Allied Health involvement:



Type of Allied Health involvement
Physiotherapist (11, 31.4%),
Occupational Therapist (7, 20.0%),
Dietitian/Nutritionist (11, 31.4%),
Diabetic Educator (9, 25.7%),
Podiatrist (15, 42.9%),
Psychologist (0, 0.0%),
Exercise physiologist (0, 0.0%),
Speech pathologist (1, 2.9%),
Social Worker (0, 0.0%),
Pharmacist (0, 0.0%),
Other (0, 0.0%

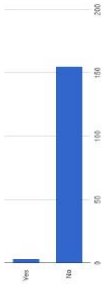
Type of intervention
Weight management (6, 17.1%),
Pain management (13, 37.1%),
Activity program (0, 0.0%),
Medication management (0, 0.0%),
Psychological support (0, 0.0%),
Counselling (0, 0.0%),
Centrelink access support (0, 0.0%),
Home visit assessment, mods and equipment (4, 11.4%),
Provision of mobility aids (0, 0.0%),
Foot care (12, 34.3%),
Diabetes education/management (11, 31.4%),
Other (3, 8.6%)

Functional assessment

Is there evidence that a functional assessment has been carried out?

Yes 3

No 155



Is it part of the 715?
Yes – 0
No – 3

Have concerns regarding function been raised?
Yes-2
No-1

Is there a Health Service response to concerns raised?
Yes- 2
No-0

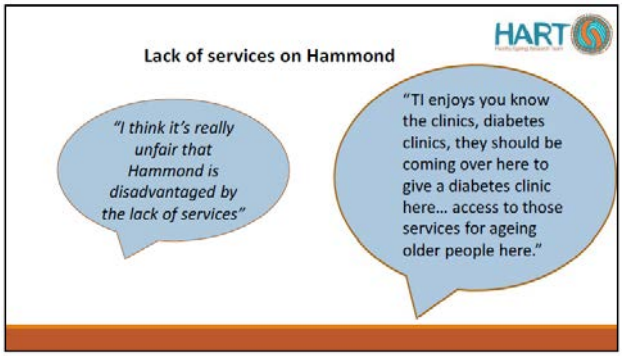
Is it an independent assessment? Yes (3, 100.0%), No (0, 0.0%)
Who is the assessment by? Health Worker (0, 0.0%), GP (0, 0.0%), Allied Health (3, 100.0%), Nurse (0, 0.0%), Other (0, 0.0%)
Is there evidence of the following components being assessed?
Personal ADLs (3, 100.0%),
Instrumental ADLs (3, 100.0%),
Pain (0, 0.0%), Falls (2, 66.7%),
Financial capacity (0, 0.0%),
Driving (0, 0.0%),
Other (1, 33.3%)

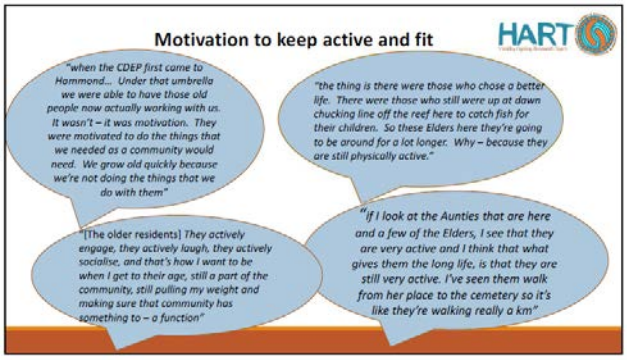
Yarning Circle findings

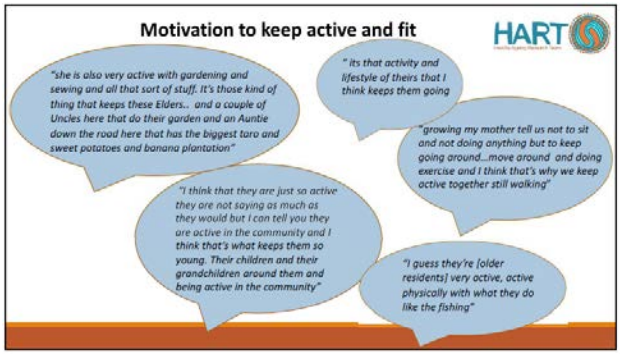
Chronic disease

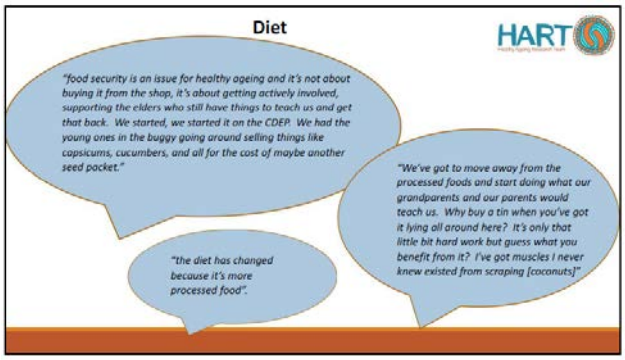
CD has made it more challenging to grow old well

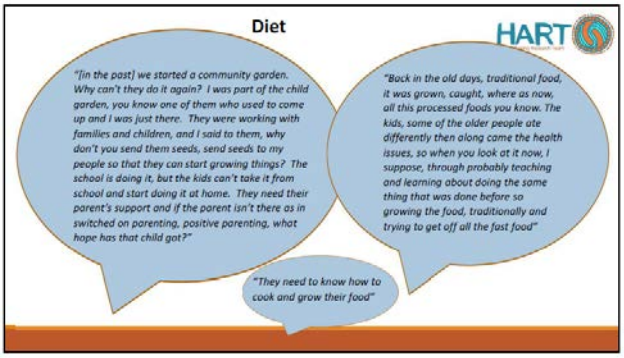
"I'm dealing with chronic disease, and I've never had those issues before. But all of a sudden, I'm dealing with health issues."

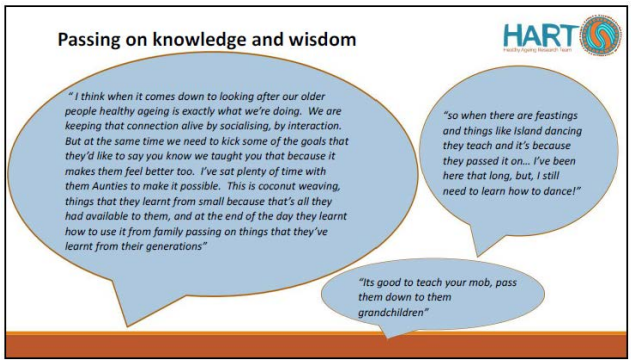

Lack of services on Hammond
HART
"I think it's really unfair that Hammond is disadvantaged by the lack of services"
"TI enjoys you know the clinics, diabetes clinics, they should be coming over here to give a diabetes clinic here... access to those services for ageing older people here."

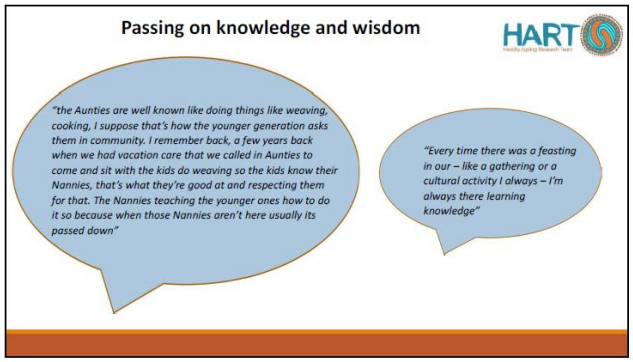

Motivation to keep active and fit
HART
"when the CDEP first came to Hammond... Under that umbrella we were able to have those old people now actually working with us. It wasn't – it was motivation. They were motivated to do the things that we needed as a community would need. We grow old quickly because we're not doing the things that we do with them"
"the thing is there were those who chose a better life. There were those who still were up at dawn chucking line off the reef here to catch fish for their children. So these Elders here they're going to be around for a lot longer. Why – because they are still physically active."
"[The older residents] They actively engage, they actively laugh, they actively socialise, and that's how I want to be when I get to their age, still a part of the community, still pulling my weight and making sure that community has something to – a function"
"if I look at the Aunties that are here and a few of the Elders, I see that they are very active and I think that what gives them the long life, is that they are still very active. I've seen them walk from her place to the cemetery so it's like they're walking really a km"


Motivation to keep active and fit
HART
"she is also very active with gardening and sewing and all that sort of stuff. It's those kind of thing that keeps these Elders.. and a couple of Uncles here that do their garden and an Auntie down the road here that has the biggest taro and sweet potatoes and banana plantation"
" its that activity and lifestyle of theirs that I think keeps them going
"growing my mother tell us not to sit and not doing anything but to keep going around...move around and doing exercise and I think that's why we keep active together still walking"
"I think that they are just so active they are not saying as much as they would but I can tell you they are active in the community and I think that's what keeps them so young. Their children and their grandchildren around them and being active in the community"
"I guess they're [older residents] very active, active physically with what they do like the fishing"

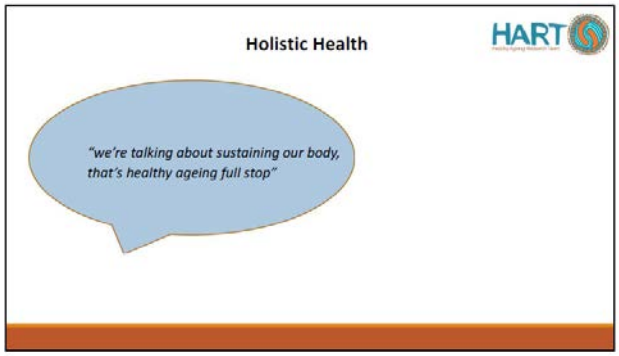

Diet
HART
"food security is an issue for healthy ageing and it's not about buying it from the shop, it's about getting actively involved, supporting the elders who still have things to teach us and get that back. We started, we started it on the CDEP. We had the young ones in the buggy going around selling things like capsicums, cucumbers, and all for the cost of maybe another seed packet."
"We've got to move away from the processed foods and start doing what our grandparents and our parents would teach us. Why buy a tin when you've got it lying all around here? It's only that little bit hard work but guess what you benefit from it? I've got muscles I never knew existed from scraping [coconuts]"
"the diet has changed because it's more processed food".

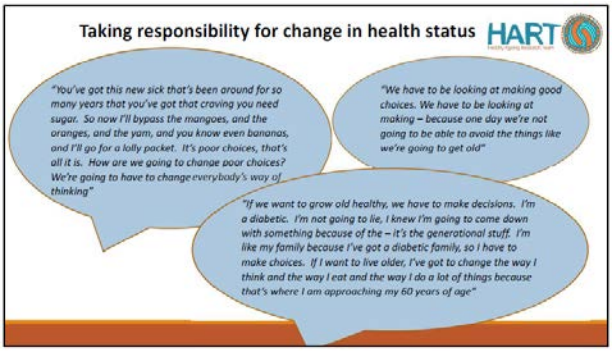

Diet
HART
"[in the past] we started a community garden. Why can't they do it again? I was part of the child garden, you know one of them who used to come up and I was just there. They were working with families and children, and I said to them, why don't you send them seeds, send seeds to my people so that they can start growing things? The school is doing it, but the kids can't take it from school and start doing it at home. They need their parent's support and if the parent isn't there as in switched on parenting, positive parenting, what hope has that child got?"
"Back in the old days, traditional food, it was grown, caught, where as now, all this processed foods you know. The kids, some of the older people ate differently then along came the health issues, so when you look at it now, I suppose, through probably teaching and learning about doing the same thing that was done before so growing the food, traditionally and trying to get off all the fast food"
"They need to know how to cook and grow their food"

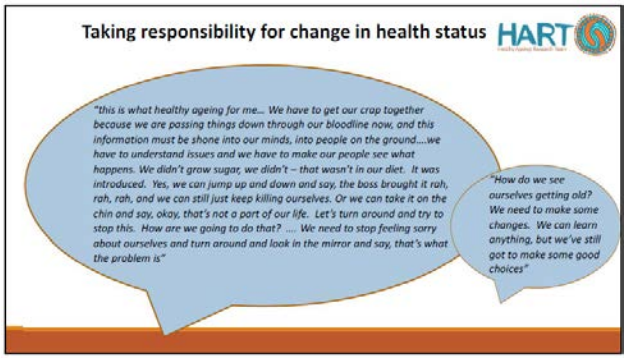

Passing on knowledge and wisdom
HART
" I think when it comes down to looking after our older people healthy ageing is exactly what we're doing. We are keeping that connection alive by socialising, by interaction. But at the same time we need to kick some of the goals that they'd like to say you know we taught you that because it makes them feel better too. I've sat plenty of time with them Aunties to make it possible. This is coconut weaving, things that they learnt from small because that's all they had available to them, and at the end of the day they learnt how to use it from family passing on things that they've learnt from their generations"
"so when there are feastings and things like Island dancing they teach and it's because they passed it on... I've been here that long, but, I still need to learn how to dance!"
"Its good to teach your mob, pass them down to them grandchildren"

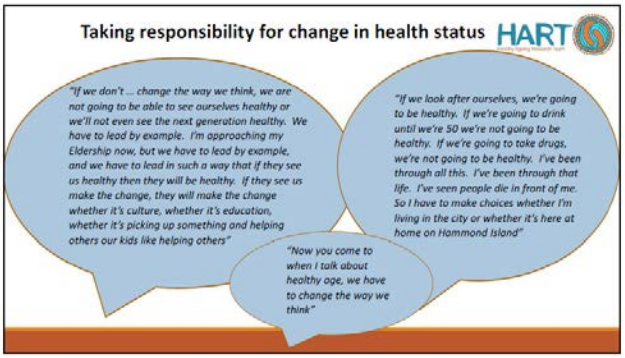

Passing on knowledge and wisdom
HART
"the Aunties are well known like doing things like weaving, cooking, I suppose that's how the younger generation asks them in community. I remember back, a few years back when we had vacation care that we called in Aunties to come and sit with the kids do weaving so the kids know their Nannies, that's what they're good at and respecting them for that. The Nannies teaching the younger ones how to do it so because when those Nannies aren't here usually its passed down"
"Every time there was a feasting in our – like a gathering or a cultural activity I always – I'm always there learning knowledge"

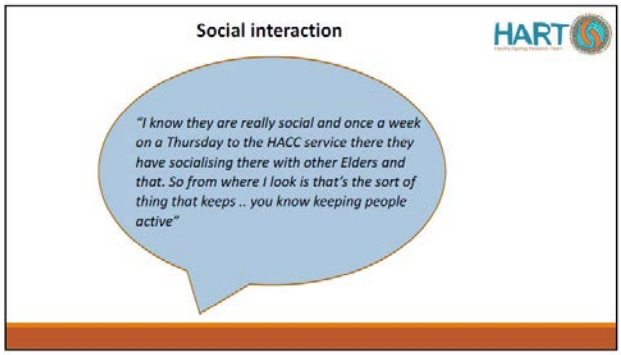

Cultural practices
HART
"Like hunting - just being in your country and passing down that hunting skills and knowledge and all that. Me and my younger brother we actually had that as a blessing to us because when we were 16, 17, we didn't drink alcohol like nowadays they smoke, they drink. Like after school we always go walking on the reefs, gather fish, mud crabs, all of that and take it home to my Elders. Just seeing that now like the communities are dropping like losing the family respect, like the traditional practices"
"When we grew up traditional practices for me and my younger brother was the main thing in the family and our sustainability as well. Like never hunting just for the fun of it, hunting actually to feed the families"

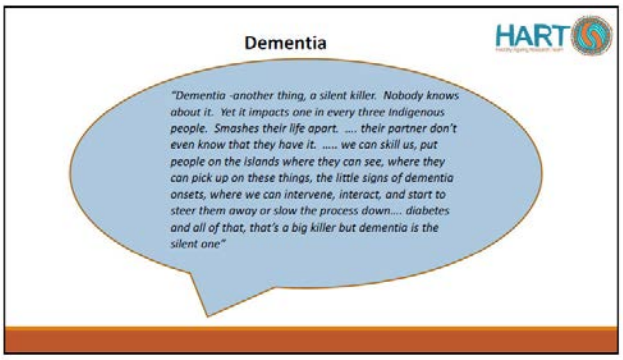

Holistic Health
HART
"we're talking about sustaining our body, that's healthy ageing full stop"

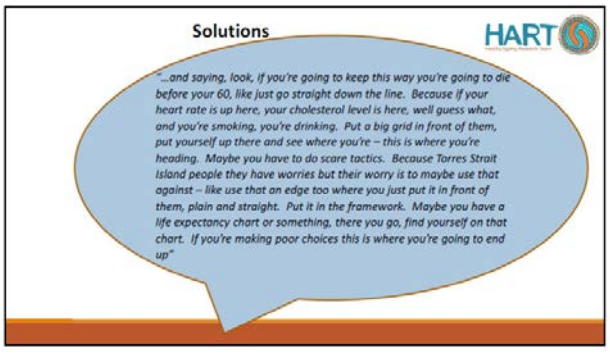

Taking responsibility for change in health status
HART
"You've got this new sick that's been around for so many years that you've got that craving you need sugar. So now I'll bypass the mangoes, and the oranges, and the yam, and you know even bananas, and I'll go for a lolly packet. It's poor choices, that's all it is. How are we going to change poor choices? We're going to have to change everybody's way of thinking"
"We have to be looking at making good choices. We have to be looking at making – because one day we're not going to be able to avoid the things like we're going to get old"
"If we want to grow old healthy, we have to make decisions. I'm a diabetic. I'm not going to lie, I knew I'm going to come down with something because of the – it's the generational stuff. I'm like my family because I've got a diabetic family, so I have to make choices. If I want to live older, I've got to change the way I think and the way I eat and the way I do a lot of things because that's where I am approaching my 60 years of age"


Taking responsibility for change in health status
HART
"this is what healthy ageing for me... We have to get our crap together because we are passing things down through our bloodline now, and this information must be shone into our minds, into people on the ground....we have to understand issues and we have to make our people see what happens. We didn't grow sugar, we didn't – that wasn't in our diet. It was introduced. Yes, we can jump up and down and say, the boss brought it rah, rah, rah, and we can still just keep killing ourselves. Or we can take it on the chin and say, okay, that's not a part of our life. Let's turn around and try to stop this. How are we going to do that? .... We need to stop feeling sorry about ourselves and turn around and look in the mirror and say, that's what the problem is"
"How do we see ourselves getting old? We need to make some changes. We can learn anything, but we've still got to make some good choices"


Taking responsibility for change in health status
HART
"If we don't ... change the way we think, we are not going to be able to see ourselves healthy or we'll not even see the next generation healthy. We have to lead by example. I'm approaching my Eldership now, but we have to lead by example, and we have to lead in such a way that if they see us healthy then they will be healthy. If they see us make the change, they will make the change whether it's culture, whether it's education, whether it's picking up something and helping others our kids like helping others"
"If we look after ourselves, we're going to be healthy. If we're going to drink until we're 50 we're not going to be healthy. If we're going to take drugs, we're not going to be healthy. I've been through all this. I've been through that life. I've seen people die in front of me. So I have to make choices whether I'm living in the city or whether it's here at home on Hammond Island"
"Now you come to when I talk about healthy age, we have to change the way we think"


Social interaction
HART
"I know they are really social and once a week on a Thursday to the HACC service there they have socialising there with other Elders and that. So from where I look is that's the sort of thing that keeps .. you know keeping people active"


Dementia
HART
"Dementia -another thing, a silent killer. Nobody knows about it. Yet it impacts one in every three Indigenous people. Smashes their life apart. .... their partner don't even know that they have it. ..... we can skill us, put people on the islands where they can see, where they can pick up on these things, the little signs of dementia onsets, where we can intervene, interact, and start to steer them away or slow the process down.... diabetes and all of that, that's a big killer but dementia is the silent one"


Solutions
HART
"...and saying, look, if you're going to keep this way you're going to die before your 60, like just go straight down the line. Because if your heart rate is up here, your cholesterol level is here, well guess what, and you're smoking, you're drinking. Put a big grid in front of them, put yourself up there and see where you're – this is where you're heading. Maybe you have to do scare tactics. Because Torres Strait Island people they have worries but their worry is to maybe use that against – like use that an edge too where you just put it in front of them, plain and straight. Put it in the framework. Maybe you have a life expectancy chart or something, there you go, find yourself on that chart. If you're making poor choices this is where you're going to end up"

Appendix L

Ethics approvals

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FNQ HREC extension approval

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JCU HREC extension approval

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Appendix M

Site-specific assessment approval

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Site-specific assessment extension approval