



*A decade of ageing well in Aotearoa
and beyond*

**AGEING
WELL**

Kia eke kairangi ki te
taikaumātuatanga

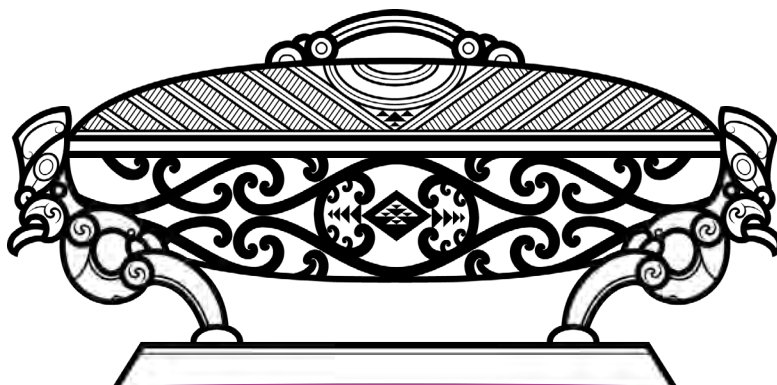




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Kaupapa Māori Design Narrative



The design of this pukapuka draws inspiration from the form of a traditional waka huia. Historically, waka huia served as prized treasure boxes, meticulously crafted to hold precious adornments and taonga passed down through generations.

Within the framework of Ageing Well, the treasures symbolised within the waka huia transcend material possessions. Instead, they represent the invaluable wealth of wisdom, values, and intergenerational legacies passed down through time. These treasures are not just for personal enrichment, but are intended for the benefit and guidance of future generations, fostering their developments through the teachings and knowledge of the past.

Introduction from kaumātua

Koro Hata Temo



Te iti aa Tuhoe

E kata te po

Ko Maataatua te Waka

Ko Mauna Pohatu te Mauna

Ko Hinemataroa te Awa

Ko Tuhoe te Iwi

Ko Naati Tawhaki, Naati Rongo me Te Mahurehure na Hapuu

Ko te Hata Temo taku inoa.

As kaumātua of Ageing Well, my role has been to keep the tanata and kaupapa safe, protected, and well. What this looks like on a day-to-day basis is by kōrero, karakia, hui, and cultural supervision. I help support our kaimahi pākehā to learn and build their knowledge of Te Ao Māori, and to ensure they feel safe and supported to contribute to our valuable kaupapa. Most people are unaware of all of the elements and taonga of the role of Kaumātua, but this is important work and I am proud and honoured to be able to do this mahi.

Ageing Well has been on a journey – and still is on a journey – to becoming a better Te Tiriti partner. Reflecting upon our progress with Callie Corrigan, a talented wahine Māori who has been commissioned to write Ageing Well's Tiriti Story, we have identified a number of learnings that have led us to where we are in 2024.

Some of these include:

- Establishing Tuakana-Teina and mentoring in spaces of leadership.
- Fostering the active participation of kaumātua in the development of research initiatives to achieve positive outcomes.

- Building the relationships first: valuing Whanaungatanga and looking after people is intrinsic to the way this team leads.
- Creating the guidelines or parameters to address conflict or tension between partners.
- Leadership without personal gain: a unique approach where leaders make decisions without personal benefits.
- Valuing the building of partnerships with tanata tiriti. The trust is enhanced when Māori see Māori leaders in key roles.
- Engaging in an amazing range of research that specifically benefits Māori.
- The team at Ageing Well have been keen to contribute to this important mahi and look forward to exploring this in further depth in a forthcoming publication of Ageing Well's Tiriti Story, to be published later in 2024.

Kaumātua at our heart

One of the ways in which Ageing Well does science differently is that we have our kaumātua at the forefront of what we do. Ageing Well fosters the active participation of kaumātua in our research.



Koro Hata Temo addresses the Ageing Well whānau at a wānanga.

Kaumātua, like myself, have a wealth of wisdom and a desire to utilise this to assist our community, whānau, and future generations.

We are like pā harakeke: just as the new leaves sprout at the centre of the flax are like tamariki, kaumātua are the older flax that surrounds them, nourishing and supporting our mokopuna.

When a piece of research is done by communities for communities, the process will be guided by tanata and ultimately leads to achieving positive outcomes for kaumātua. Our wisdom supports not only the development and design of research but the wellbeing of the people who are leading the research. This integrated way of doing research also ensures that the research outputs have value and will be more readily adopted by the community. Kaumātua are kaitaki: they seek to contribute, to be mana whakatipu. What better way to harness the power, knowledge, and mana of our kaumātua than by joining together to solve problems?

Ka mua ka muri

Ageing Well and all of the other 10 National Science Challenges will be wrapping up in mid-2024. Whilst we are aroha, we do not see this as the end of the mahi and our involvement in ageing-focused research. I believe as we close

one kaupapa, we open spaces for new kaupapa.

The Ageing Well kaupapa will continue to live on in some form. The learnings individuals affiliated with Ageing Well have gathered over the past decade will provide water to nourish the seeds within future pieces of work. It is important for our people to bind these learnings and weave them into future kaupapa, just as we continue to weave new strands of harakeke into a long taura. The rope will continue to live on as new strands are woven into it.

The role of ageing and the ranahau to this time of life marches on. We hope that the emphasis on equity continues, as Māori still face significant inequity, particularly in life expectancy. It is important that we continue our mahi to increase the life expectancy of our hapori whānui.

Ageing Well has laid down the foundations of this kaupapa though a decade of equity focused work. We have shared and nurtured this foundation with you, and now it is your turn to continue building the whare, to keep the kaupapa going.

The korowai is laid down for you to continue.

It's your turn to carry it forward. ■

— Koro Hata Temo

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Ageing Well in a nutshell



Tēnā koutou katoa.

Nau mai, haere mai ki te pukupuka i ngā hua o te Kia eke kairangi ki te taikaumātuatanga. Welcome to the second book about the research and stories behind the success of the Ageing Well National Science Challenge – Kia eke kairangi ki te taikaumātuatanga.

Over the last 10 years, this Challenge has funded hundreds of researchers, scientists, communities and associated stakeholders from across the motu to tackle the most important ageing-related issues facing our generations.

Since 2014, we have been hosted by Te Whare Wānanga o Ōtākou University of Otago and worked with many others to seize the opportunities and combat the challenges that research has identified for ageing in Aotearoa.

Ultimately, our purpose has always been to create change through harnessing science and mātauranga Māori (Indigenous knowledge) to sustain health and wellbeing into the later years. The intention of this is to find new and innovative ways of adding life to years to help all New Zealanders to reach their potential at every stage of life.

‘Ageing well’ means different things for different families, communities and cultures. That’s why our mahi is driven to achieve equity in ageing, and why we have invested in broad research that investigates the many different factors affecting this. A few examples include healthy housing, mental wellbeing, staying active, social connections, living with disabilities, cultural identity, continued autonomy, brain health, and support for whānau-based carers.

Going beyond academia and journal paywalls

Doing science differently makes our mahi unique, and our impact wide-reaching. Our mahi spans many disciplines, institutions, and communities. Rather than only funding research housed in traditional institutions, such as universities, we’ve taken it outside the academic box and made it a focus to include and value non-academic sources of knowledge. For example, *Te Roro* (see page 33)

captures important mātauranga Māori embedded in kōrero and whakairo, alongside Western science.

The relationships we hold with communities, as partners in this mahi, is critical to our success. Our community partners have been made part of our research teams and play a key role in driving the research. Without them, our research would not



have had the breadth or depth of knowledge that it needed for it to be relevant, or reached the level of impact that it has had.

Sharing knowledge reciprocally with our communities has been pivotal to creating meaningful change. As a result, these communities are the ones who will benefit most from the

outcomes. Knowledge that is not shared is koretake – ineffective. It is only through a two-way kōrero that we have been able to work together synergistically towards enhancing the tino rangatiratanga of older individuals and their whānau, reducing inequities, and encouraging the development of age-friendly environments. ■

***He aha te kai a te rangatira? He kōrero, he kōrero, he kōrero.
What is the food of the leader? It is knowledge. It is communication.***

Chair's letter

Tēnā koutou katoa,

June 2024 marks the conclusion of the National Science Challenges, including Ageing Well. Amongst the busyness of final tasks to bring Ageing Well to a close, it is important to take pause to reflect on the research activities that Ageing Well has supported, as well as what we have achieved as a collective since the Science Challenges began in 2014. We are proud of the long-term impact this research programme has created – a lasting legacy that will extend far beyond 2024.

During the second half of the Ageing Well National Science (Phase Two, 2019-2024), we've been working more closely to build stronger relationships that create synergistic – and sometimes unexpected – actions to address the complex issues affecting older peoples' wellbeing. I believe that amplifying 'people power' and building solid communities has, and will continue to be, the catalyst in achieving the lofty goal of addressing inequity in ageing and adding life to years.

We sharpened our focus in Phase Two to create more impact in the areas of ageing that needed it most: Ageing & Māori and Health & Wellbeing in Ageing. Why? Because even though Māori consider ageing an enriching process, the actual health of kaumātua tells a different story: Māori are not ageing as well as they might – several years lower life expectancy as compared to Pākehā being a telling example. We saw how critical it was to find out why not, and how Aotearoa New Zealand might change that.

We allocated resources accordingly – half of our Phase Two funding was directed to kaupapa Māori, rangahau Māori, Māori-led research and implementation projects. This was a bold move

(unheard of at the time). Yet projects – such as *Taurite Tū* (see page 76 for more) and *Kaumātua Mana Motuhake Pōi* (see page 89 for more), as well as others – have proven that this was the right move to make. By engaging communities (see page 94 for more) to create research in action, we aimed to empower them to continue with the kaupapa of Ageing Well, long after the Ageing Well National Science Challenge has concluded.

Doing research within a kaupapa Māori framework can absolutely progress us towards that lofty goal of adding life to years. It is heart-warming to be able to prove that science done differently works. If we take a Te Tiriti-led approach, research will be better able to create impact we need, exactly where it's needed.

While the tide is now starting to turn for the better in creating the support needed for older people and kaumātua to age well, we need to keep up

Even though Māori consider ageing an enriching process, the actual health of kaumātua tells a different story: Māori are not ageing as well as they might. We saw how critical it was to find out why, and how Aotearoa New Zealand might change that.

Dr Will Edwards, Chair

our efforts in whatever work we undertake following the closure of Ageing Well. Ten years is barely a flash in the pan and it can take



Chair Dr Will Edwards addresses Ageing Well whānau at our 2022 Symposium on Housing and Aged Care.

decades to make substantial advancements in wellbeing across the population. That's why it's been so important to establish strong and lasting relationships amongst the Ageing Well stakeholder communities. Throughout the Challenge's life, the strong connections that we nurtured amongst our whānau (community, researchers, non-Governmental organisations, policymakers) will hopefully endure and continue to contribute to a better Aotearoa New Zealand for all.

We know that our whānau will continue this journey together towards equitable wellbeing for all our older people – regardless of what the research landscape looks like in the next 10 years.

He mihi aroha ki a koutou, e te whānau, e hoa mā, e ngā hapori puta noa. Thank you to all in the Ageing Well whānau who have contributed to this life-changing mahi. It is most important to acknowledge our older citizens who have participated in the plethora of research activities, funded by Ageing Well over the past 10 years.

We also thank the front-line workers amongst

our communities throughout our nation. Thanks too, to the many research teams based across numerous institutions and working on a multitude of perspectives, all aligned with Ageing Well's mission. It has been an absolute pleasure to have been, and to continue, serving our communities, alongside you.

I would like to acknowledge our host institution Te Whare Wānanga o Otāgo University of Otago for providing the infrastructure and support to run Ageing Well. Finally, to the Ageing Well National Science Challenge Directorate, Strategic Advisory Panel, International Science Advisory Panel, and Governance Group: E kore e mutu te mihi ki a koutou katoa. ■

Noho ora mai i roto i ngā manaakitanga



Dr Will Edwards
Ageing Well Chair, 2020 -2024

Our *tohu* and *kōwhaiwhai*



We reflected on our voyage and had a clearer understanding of where we were heading. This included engaging more bicultural messaging that represents our work in addressing issues of inequity and in becoming a better Tiriti partner.



Professor David Baxter, Director

In November 2022, our kaumātua Koro Hata Temo performed a karakia and blessing of our new *tohu*, *kōwhaiwhai* and website. It was an important milestone for us all, as a visual embodiment of our journey in going beyond Vision Mātauranga and towards being a truly Te Tiriti-led organisation.

Ageing Well has come an incredibly long way since our inception in 2014, particularly with respect to prioritising equity in ageing for Māori and Pacific communities. At the start of our *haerenga* (journey), how we did science and how we worked with others was a very Western model. As Ageing Well moved into its second phase, we started to paddle our *waka* towards Hata Temo (Ngāi Tūhoe), Kaitohutohu at Te Whare Wānanga o Ōtākou. We are sincerely grateful to Koro Hata for his knowledge, wisdom, guidance and vision that has led us to where we are now. Koro Hata's influence shines through not only how our research is done, but also in who we are, what we believe is important, and how we connect and share our *kōrero* (stories) with others.

Yet as we progressed, we soon felt that, eight years on, our branding and website did not reflect how far we'd come, what our learnings had been

along the way, and who we had in our *whānau* now. "We reflected on our voyage and had a clearer understanding of where we were heading," says Professor Dave Baxter, Ageing Well Director. "This included engaging more bicultural messaging that represents our work in addressing issues of inequity and in becoming a better Tiriti partner."

Ultimately, we wanted the designs, imagery and layouts of our *mahi* to distinctly resonate with kaumātua Māori. We began by updating our research themes to align with our future direction and better reflect Māori communities' values and priorities in supporting kaumātua.

We consulted with our kaupapa Māori researchers to create four new research themes that reflected what we valued and explained the different types of research being done. We then enlisted the help of Arika Creative, a kaupapa Māori design agency, to create unique *tohu* (see page 12 for more) and *kōwhaiwhai* for each theme. Koro Hata was integral in the consultation process with Arika Creative. His sage advice and guidance helped influence the kaupapa Māori creative *mahi* that Arika did.



To our surprise and delight, Arika Creative also incorporated elements of all four themes to create a fifth tohu and kōwhaiwhai that we hadn't commissioned: Kōtahitanga. Arika Creative realised that collective outcomes lie at the heart of what we do and how we do it. These collaborations are where whānau creates and celebrates the successes. "We asked ourselves many questions about the work we do and how we seek to effect change in our communities," says Professor Louise Parr-Brownlie, Director 2020 - 2023. "It has been a collaborative effort and one that has culminated in bringing to life a new identity for Ageing Well."

Gratefully receiving the gift of the Kōtahitanga tohu and accepting the challenge and responsibility to uphold it, the Kōtahitanga is now prominently displayed in purple across our website and branded communications. This tohu represents all the combined knowledge from Ageing Well's research and encompasses who we are as an organisation.

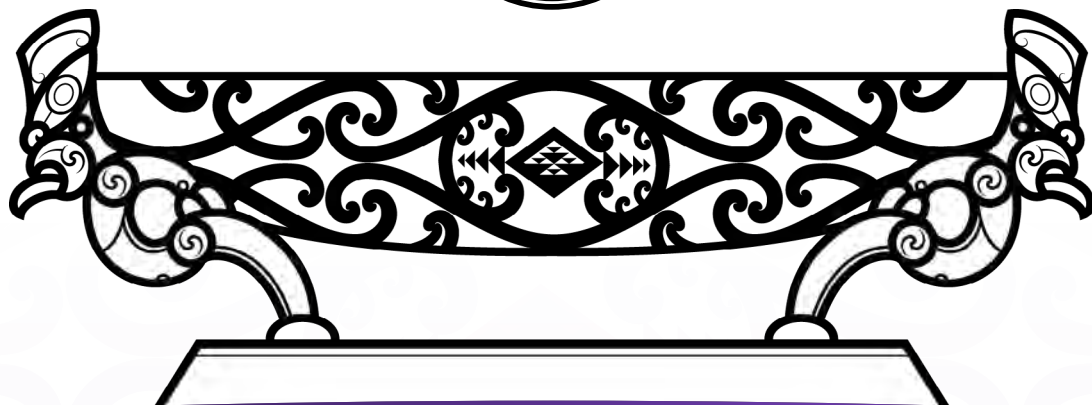
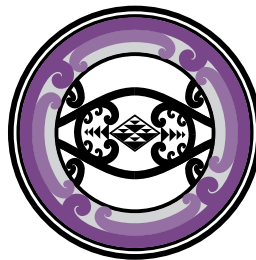
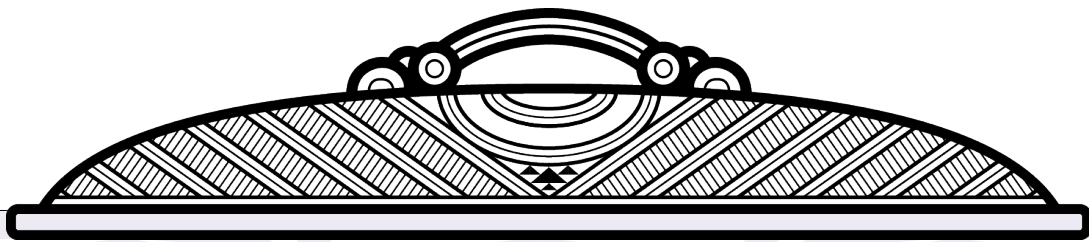
We are so proud and thankful to have these

five beautiful taonga (see page 12 for more) representing our Challenge and the vitally important mahi that our researchers have been doing. Arika Creative have been pivotal in helping us tell our story in a way that truly reflects our purpose and values. Ngā mihi maioha with great appreciation to Taane Flanagan at Arika Creative for this mīharo mahi. ■

We asked ourselves many questions about the work we do and how we seek to effect change in our communities. It has ... culminated in bringing to life a new identity for Ageing Well.

Professor Louise Parr-Brownlie, Director 2020 - 2023

Our tohu explained



**Kaumātutanga | Age friendly**

In this design, much like the pā harakeke, the outer strands of the flax protect and support nurturing the smaller fronds. The triangles stem from mahi raranga, the form of weaving from harakeke. They represent the products and influence the kaumātua provides for the next generation.

**Hāpori | Community**

This style draws on a form of raranga known as tāniko. The tāniko process is a skilled process that takes time and a lot of practice to master. It is only possessed by certain people with the capability of doing it. The tāniko uses multiple strands of fine muka sourced from harakeke, each strand holding the shape of the design. Much like community, each strand is important to hold the community together.

**Tātai Hono | Connection**

Using the koru form to represent connection, this design symbolises the growth and development of the individual and all of their knowledge and experiences. Each koru has its own whakapapa and connection, and coming together speaks to connection.

**Tinana | Wellbeing**

In this design, four koru represent the four walls of the wellbeing model created by Tā Mason Durie. The four walls of the whare being Hinengaro (mental), Wairua (spiritual), Whānau (social) and Tinana (physical). Each part of the whare is equally as important as the others in order to achieve sustainable wellbeing.

**Kōtahitanga | Togetherness**

This design uses elements of each research strand: Kōwhaiwhai – Kaumātutanga, Hāpori, Tātai Hono, and Tinana. Kōtahitanga connects the narratives of each value and reminds us all to be one and support one another.

The importance of equity in ageing



Ageing well can mean different things for different communities, and different communities' social and cultural uniqueness will shape the way they age in different ways.

"Ageing is not a one-size-fits-all experience," says Associate Professor Diane Ruwhiu, Co-Director. "All our older people deserve to age well... but what that means for one person will not necessarily be the same for their neighbour."

By 2073, the population of older New Zealanders (aged 65+) will be double what it was in 2023, according to projections by Stats NZ. However, the population growth of Aotearoa's older people is not equal. The proportions of Māori, Pacific, and Asian older people are increasing at a faster rate than Pākehā – predicted to grow by 200% compared to only 50% for Pākehā in the next two

decades. Therefore, it is crucial to not only improve ageing in Aotearoa, but make it *equitable*.

"Equity recognises the need for fair and proportionate service delivery to address the challenges we face," says Dr Ofa Dewes, who leads two research projects looking at ageing in Pacific communities (see page 36 and page 54 for more). "Different people with different levels of advantage require different approaches to achieve equitable health and wellbeing outcomes."

Yet a review by Te Tari Kaumātua The Office for Seniors at the start of the Challenge in 2014 revealed that most support services for older people were focused on Pākehā needs. By 2020, this had still not changed, according to a review of ageing in Aotearoa led by the Challenge's former Directors Louise Parr-Brownlie and Debra Waters.

Three examples of inequities for ageing communities



1. Māori and Pacific people are more likely than Pākehā to live with at least one disability as they age. In 2014, 63% of Māori and 74% of Pacific people aged 65-plus were classed as disabled, compared with 58% of Pākehā and 50% of Asian. 10 years on, this is likely to have increased significantly and will continue increasing, due to older Māori, Pacific and Asian communities growing at a faster rate than Pākehā.
2. There are issues with housing suitability and affordability for older residents, with low living standards being especially pronounced within older Māori and Pacific populations and for those living alone.
3. Populations in rural areas, smaller cities and districts are expected to age faster than those in urban areas, and while some councils had developed positive ageing strategies/services in 2014, others were doing nothing.

Source: 2014 Report on the Positive Ageing Strategy, Te Tari Kaumātua The Office for Seniors

Louise, Debra and their co-authors also point out that health inequities have arisen from systemic racism, yet the Crown had done nothing to address this. A Waitangi Tribunal that began in 2016 also recently found “serious Treaty breaches by the Crown that require an increased commitment to redesign the health system to address persistent Māori health inequities to enable positive Māori ageing.”

This highlighted just how fundamental it was for the Challenge to get a deep understanding of how best to address these systemic inequities, including identifying what non-Pākehā communities want from support services.

“The first and biggest opportunity that Ageing Well has had to address is the inequities we’re already aware of,” says Louise. “We know that there is a shorter lifespan for Māori and Pacific, compared to Pākehā [because of unsuitable services]. And then there’s the fact that Te Tiriti o Waitangi has not been honoured generally within Aotearoa.”

A crucial part of setting ourselves up for success in addressing inequities for Phase Two has been funding research that identifies and values the cultural differences in how ageing is perceived. This sits alongside identifying unique challenges that these communities experience as they age.

Ageing is not a one-size-fits-all experience. All our older people deserve to age well... but what that means for one person will not necessarily be the same for their neighbour.

Associate Professor Diane Ruwhiu, Co-Director

For example, Pacific Matua (elders) are the most respected individuals in aiga (family) and are central to the continuity of Pacific communities’ cultural identity. Their role is to pass important Indigenous knowledge and values to successive generations. Yet at the start of the Challenge, it was discovered that there was a huge need for more research on family, community care and better understanding of the wellbeing of Matua.

Similarly, Māori see ageing as a positive stage in life. Many look forward to ageing, since kaumātua are venerated by whānau, hapū and iwi. At the end of the Phase One, however, Ageing Well-funded research showed that there was little knowledge about how kaumātua age well in different settings and circumstances. Addressing this gap in knowledge is vital for ensuring that support systems prioritise tino rangatiratanga for

Māori and make the physical side of ageing just as positive as their social and cultural position.

It’s critical that research and policy continues to push strongly for equitable wellness in ageing, as our elders are irreplaceable knowledge holders and the glue that binds our communities together. Elders’ experience and wisdom make them the core of the ‘village’ that raises the youngest generation while parents are working to support the family.

Elders losing their zest for life as they age – and to have that left unaddressed by inequitable services – has a significant negative effect on each community, and therefore Aotearoa as a whole. True equity would doubtlessly lead to better wellbeing in all aspects of life, for all stages of life, and across all generations. ■

Phase Two highlights



We've always 'done science differently' when it comes to investigating the key issues affecting older New Zealanders. What success looks like, for us, is also unique. As visualised by the *tohu* that represents how we work as a Challenge – *Kōtahitanga* – our biggest successes have been people-powered. This means that we're not only proud of *what* we've achieved, but also *how* we've achieved the outcomes, and who we've achieved them with. There's nothing as potent as community, collaboration and partnership.

2019 – 2020

Being the kōkiri: the first Challenge to move to Māori leadership

Ageing Well led changes to restructure Governance and Management leadership to work in Tiriti partnership during Phase Two and other National Science Challenges followed this initiative. We were the *kōkiri*: leading the fleet of *waka* to new distant horizons through creating a new, more inclusive way of working and taking others on the journey with us.

Our first step towards change was appointing the right people in both the Directorship and in the Governance Board to steer our *waka* in the right direction in the right way.

- **Professor Louise Parr-Brownlie** (Ngāti Maniopoto, Te Arawa) as Co-Director (then Director from the start of the 2020-2021 year).
- **Dr Will Edwards** (Taranaki, Ngāruahine, Tāngahoe, Pakakohi, Ngāti Ruanui) as Chair.
- **Glenis Philip-Barbara** (Ngāti Porou, Ngāti Uepōhatu, Clan McDonald) as a Board member.
- **Rauru Kirikiri** (Whānau-ā-Apanui) in the Governance Group as a Board member.

“*In the science sector, we're working in a Western framework, but by being Māori-led within that, we were able to completely change the emphasis and the way we do things. We were the first Challenge to go to a model of Māori-led with clear direction on implementing things.*”

Louise Parr-Brownlie
Director, 2020 – 2023

2020 – 2021

Ōritetanga: *Delivering equitable funding*

Our change in governance was foundational to getting equal funding for Māori. We knew that it was important to elevate research looking at ageing in Māori because we saw that very little research had been done previously on this. Addressing this gap helps to achieve equity for all our communities as they age – especially for Māori, in which kaumātua are the pou on which the whole hapū rests.

That's why for Phase Two, we made it a priority to fund research working in at least one of two areas of focus: Ageing & Māori and Health & Wellbeing in Ageing. We also ensured that half of our total funding for Phase Two was allocated to Māori-led, kaupapa Māori research projects across the focus areas – many of which were driven by communities themselves.

“By allocating so much funding to Māori-led research, this has brought through so many more Māori researchers and Māori leaders. It's changed the communities' perspectives of what research can do. They talk about how much it's changed for the better, the importance of research, how it uplifts not only the people that are involved but also the extended whānau of all those people and the rest of their community. ”

Louise Parr-Brownlie
Director, 2020 – 2023

2021 – 2022

Valuing and leading with Indigenous knowledge and ways of knowing

For us to make a good start in carving a path towards true equity for Māori in ageing, we needed to alter our thinking and re-envision our understanding about what research success looks like for Māori and Pacific communities. This meant privileging mātauranga Māori alongside Western science and prioritising Māori ways of being and doing, to ensure that the research we supported was both meaningful and useful for Māori communities.

In turn, we then could support Pacific communities better, by funding more research projects embedded in Pacific cultural knowledge and values. These projects have been vital for amplifying Pacific voices – previously largely ignored in the research landscape – and demonstrating the value of older adults in Pacific communities as irreplaceable knowledge holders.

Project story: *Te Roro*

Mātauranga-led brain health research

Most research in Aotearoa has contributed to western frameworks and treatments for brain conditions such as dementia, stroke, traumatic brain injury, and neurodiversity. In contrast, Māori have a holistic view of health, where brain function is not considered separate from non-physical aspects of wellbeing. *Te Roro* was a groundbreaking project grounded in kaupapa Māori methods with a research team that included community-based mātauranga Māori experts.

Because *Te Roro* was steeped in Māori values, its timings and achievements were dependent on relationships and people, rather than Western research milestones or performance indicators. This approach paid dividends in continuing the research during COVID-19 outbreaks. Rather than risk the safety of kaumātua, the research project decided to instead look to other sources of Māori knowledge, such as karakia, whaikōrero, mōteatea and whakairo, to understand how Māori view brain health and well-being.

By recognising that such foundational information can come from a range of different sources, this widened the scope of the research to achieve a much more meaningful and effective outcome.

See page 33 for the full project story.

2022 – 2023

Creating impact with collaborators and partners

Much of the work we have done would have been near-impossible without our research partners – including communities. Our Māori and Pacific research teams prioritise having community researchers' expertise as part of their team, since they are trusted members of the communities they serve. They also have direct insight into their communities' take on what ageing well means. When we funded these projects, the community answered questions to address real issues on the ground. This created a practical starting point for improving wellbeing in ageing for these communities.

Of equal importance are the research organisations that we work with, whether Crown-led or community-led. By putting many heads together and valuing the uniqueness that each set of lenses brings to the table, it's possible to create more impact for all our research considered together than for each organisation's outputs alone.

Project story: Pacific partnership

Langimalie Research Centre

Ageing Well has funded several Pacific-led research projects across the life of the Challenge, many of them headed by Dr Ofa Dewes MNZM. Wearing many hats, Ofa has been pivotal in ensuring that the voices of Samoan, Tongan, Cook Islands Māori, Niuean, Tuvaluan, Tokelauan and iKiribati – to name just a few – are all included and heard. In October 2022, Ofa and the Tongan Health Society established the Langimalie Research Centre, a brand new research centre dedicated to Pacific health research and implementation, that had been kick-started into existence by continuous research funding from Ageing Well throughout the life of the Challenge. In November 2022, the Langimalie Research Centre embarked on a new research project that has begun to shed light on what brain health support services and what cultural approaches are appropriate for diverse communities.

See page 36 for the full project story.

Cross-research collaboration: Housing for kaumātua

Housing is one of the most notable pressure points for older New Zealanders, and shows no sign of letting up as our ageing population grows. With this in mind, we joined forces with the Building Better Homes, Towns, and Cities National Science Challenge's Affordable Housing for Generations programme, run by the Centre for Research Evaluation and Social Assessment (CRESA), to publish the booklet *Reflections on Kaumātua, Pakeke, and Seniors' Housing*. It shares success stories from around the motu and the experiences of what older people seek for their housing options, based on research from the Affordable Housing for Generations team.

We are proud to have worked in such an impactful cross-collaboration that facilitates an important kōrero about how we can house older New Zealanders in adequate and acceptable housing both today and tomorrow.

2023–2024

Assessing our impact and ensuring the continuation of the kaupapa

In the final year of the Challenge, we have turned our attention to assessing the impact of our research. At Ageing Well, we see our impact as much wider than just written reports. It's in the strength of our community partnerships, the adoption of the research by the community, the recognition of the mahi by professional bodies, and our ability to effect change.

One way our research has had impact has been on a professional level with Ageing Well researchers awarded significant distinctions for their work. A particularly notable example is Professor Valery Feigin and Professor Rita Krishnamurthi, who along with their team, were awarded the nation's most prestigious science award: the Prime Minister's Science Prize. Their collective stroke research has had an incredible impact and long term contribution to health, medical, and social outcomes for all New Zealanders.

We have had numerous other accolades for our researchers, such as Queen's/King's Birthday Honours and science medals; being made society Fellows (such as The Royal Society Te Apārangi); as well as being appointed to various professional panels like the Performance Based Research Fund (PBRF).

Additionally, our researchers have used their mana and knowledge to help make changes on a broader level for those in Aotearoa. Examples of this include being appointed to positions (such as the Chief Science Advisor for Ministry of

Housing and Urban Development) and panels (like the Expert Advisory Panel for the Ministry of Social Development). Our researchers have also been successful in securing further funding, such as Professor John Reynolds' \$10M MBIE-funded research into smart wearable technologies to target neurological disorders.

Our kaupapa

One of the biggest pressure points we have focused on over this final year has been ensuring that the kaupapa of Ageing Well continues. We have facilitated symposia and regional wānanga that have been future-focused; attended hui, fono, and conferences; produced numerous documents and reports about this work; and facilitated new collaborations, networks, and opportunities to ensure that our mahi does not end when the lifespan of Ageing Well does.

We have also concentrated on widening our scope to positively influence policy around the motu, and enjoyed numerous fruitful conversations with the Chief Science Advisors forum. We have also recently had the opportunity to embed an Ageing Well researcher in the Ministry of Health, to ensure clear a pathway from research through to policy and then to making actionable changes for the benefit of older people in Aotearoa.



TINANA — WELLBEING

Science Stories



During Phase Two 2019-2024, Ageing Well has funded 18 diverse research projects that span the research themes and values that are embodied in our tohu and kōwhaiwhai (see page 12).

We grouped the projects under one of four tohu that most broadly correlates to the research:

Tinana | Wellbeing

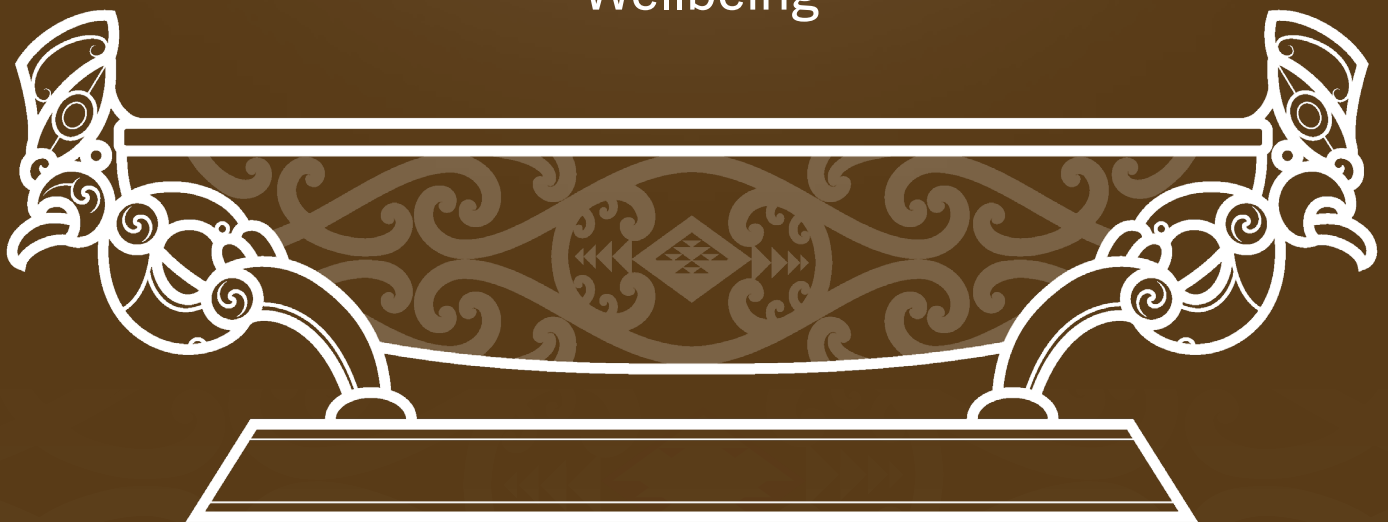
Tātai Hono | Connection

Kaumātuatanga | Age friendly

Hāpori | Community



Tinana
Wellbeing



TINANA

Early warning enables enhanced care



Forewarned, forearmed; to be prepared is half the victory.

Miguel de Cervantes



In matters of health, a little forewarning can be the difference between needing minor treatment versus major intervention, or the difference between a sudden, surprise death versus a well-managed end of life. Systematic monitoring, especially when health is declining, can provide the early clues required to make the right decisions and improve outcomes for everyone.

Currently, there are no national standards for monitoring the health of kaumātua / elders living in residential aged care facilities. And yet, a high proportion of residents are frail. Frailty is a syndrome in which people are vulnerable to minor stressors and have decreased physiological reserves. When frail people get sick, symptoms present differently to those experienced by the general adult population. They can be very unwell but have “nonspecific” symptoms making it challenging to know how to help them.

Nurses in residential aged care facilities are trained to recognise acute illness in older people, but it can be hard to differentiate between underlying conditions and initiation of a new health issue. Making decisions about when to call for extra assistance is not easy, especially when changes can be subtle.

Nurse Practitioner Julie Daltrey wants people in residential aged care facilities to get the right care

at the right time in the right place. That may sound simple. But she doesn't want to turn the home-like environment of these facilities into a clinical setting by measuring resident's vital signs every few hours. She argues it's the observable changes – things that don't need medical equipment to measure – that provide the earliest indications that health may be going downhill.

Julie has spent much of her career solving problems. She worked as a gerontology nurse with the Waikato District Health Board, going into residential care facilities to help them sort out issues. One of the issues that stayed in her mind was the delay that sometimes happens in identifying and acting on deteriorating health in older people. She saw that this was partially a consequence of scattered pieces of information – a family member may have witnessed new confusion in the evening, a caregiver saw that breakfast wasn't eaten, the nurse noted some unusual swelling – but there was no process to bring observations together and make them meaningful and useful.

When Julie started working with Nurse Practitioner and Associate Professor Michal Boyd (who she describes as a national treasure), they discussed ways of supporting nurses to address this problem and applied for funding from Ageing Well.



Scouring the international literature for published methods only revealed a large gap. There were no existing tools for registered nurses to systematically identify and respond to acute deterioration for residents in aged care facilities. So, for her PhD research, Julie set out to develop such a tool.

The result is DEWS – a Deterioration Early Warning System. There is no nationally implemented tool like this in the world, so Aotearoa New Zealand has an opportunity to become world-leading with this endeavour.

In practice, DEWS consists of three pieces of paper. One allows caregivers to record changes in observable signs such as residents being different from usual, eating less, falling more, or sleeping more. Another is for registered nurses to assess cognition, consciousness, behaviour, and physical and functional indicators of health. Measurement of vital signs also plays a part. DEWS scores dictate what level of intervention is required and how urgently that should be sought. There's also a hand-over form to assist with decision-making and communication. The process aims to legitimise nurses' assessments and empower them to escalate cases to the next clinical level.

But DEWS is much more than a form-filling exercise – it's a thoroughly researched approach to monitoring deterioration. To determine which clinical indicators to use on the forms, the researchers analysed health records from 2015

and found over 500 people who had presented at an emergency department, been hospitalised, or died within seven days of their last official health assessment (using interRAI – Long-Term Care Facility). Statistical analysis helped them identify factors that were strongly correlated with acute deterioration. They found, for example, that being "largely asleep or unresponsive" made a person eight times more likely to be close to admission to ED, hospital, or death than residents without this symptom. The nine top-scoring indicators were included in the DEWS tool.

DEWS was designed to resonate with what carers and nurses already do. Interviews were conducted with residents, family members, care staff, nurses, and doctors to find out how acute deterioration is currently identified. The researchers found good overlap between what the data showed and what's done in practice, so they were able to bring these together to iteratively design the tool.

Ultimately, this evidence-based approach ensures that deterioration in the health of older people is detected at the earliest possible stage. Early warning enables enhanced care in two main ways: timely treatment for those who have reversible conditions and are likely to recover, and good end-of-life care for those who are most likely dying. Time can be precious – it's the difference between having palliative care in place so a person can die comfortably, instead of dying without support.

DEWS was co-designed and developed in the middle of the Covid-19 pandemic, so it wasn't trialled with as many people as anticipated. However, the researchers are currently collaborating with Te Tahu Hauora Health Quality and Safety Commission to run a pilot test feasibility study of DEWS at residential aged care facilities. This will enable implications on the sector to be understood before wider implementation is actioned. Julie hopes to see DEWS translated into an electronic format and used nationwide.

For those living in residential aged care facilities, or with family members there, we can now look forward to a time when the fragmented pieces of an individual's health puzzle will be collected systematically and used as clues to give the earliest possible notice of deterioration. We may not have a crystal ball when it comes to health outcomes, but, with a tool like DEWS, we'll have the best chance of being prepared. ■

Researchers:

- Julie Daltrey
- Associate Professor Michal Boyd
- Professor Vanessa Burholt
- Associate Professor Jackie Robinson
- Professor Heather McLeod
- Dr Zhengaing Wu
- Dr Katherine Bloomfield
- Patumahoe Leaf-Wright
- Kelly Te Tare

Acknowledgements:

- June Atkinson
- Tess Moeke-Maxwell
- All our participants

Detecting deterioration in health

WHY?

Currently, there are no national standards for monitoring the health of older adults in residential aged care facilities. And yet, it can be challenging for nurses to differentiate new issues from underlying conditions and decide when to initiate additional assistance.

HOW?

The researchers analysed health records from 500 people to identify indicators that were strongly correlated with acute deterioration and led to presentation at an emergency department, hospitalisation, or death.

WHAT?

A Deterioration Early Warning System (DEWS) was produced. Early warning enables enhanced care in two ways: timely treatment for those who have reversible conditions and are likely to recover, and good end-of-life care for those who are most likely dying.

WHAT NEXT?

DEWS is currently being trialled to understand the implications on the sector. The researchers would like to see DEWS implemented nationwide to assist nurses with early detection of deterioration.

TINANA

Influencing quality of life in old age

A transformational journey along the walkway of life.

Participant in Ngā Pou o Rongo

As humans, we are living longer lives than ever before. But improvements in our health are not keeping pace with the extension to our lives. New Zealanders have an average life expectancy of 82 years, but our *healthy* life expectancy is only 70 years, according to the World Health Organization. That means we can expect to spend, on average, 12 years living with the impacts of disease or injury. And for some ethnicities, the numbers are worse.

Professor Ngaire Kerse (MNZM), Joyce Cook Chair in Ageing Well, Waipapa Taumata Rau University of Auckland, is adamant that more needs to be done to enable older adults to live high quality lives, free of frailty and illness. Retaining mobility as we age, and our independence for the activities of daily living, is of high importance for individuals, for communities, and for Aotearoa New Zealand as a whole. At a personal level it's about quality of life, at a community level it's about the valuable contribution that older adults make to families and society, and at a national level it's about having a thriving country with low health needs and costs.

An additional imperative for working towards healthier lives in old age is the upcoming increase in the proportion of older adults in Aotearoa's population. Over the next twenty years, the

proportion of people over 85 years old is expected to quadruple. Proportions of older Māori and Pacific peoples are growing even faster than the general population. New Zealand needs to act now to prepare for the provision of care to an ageing population, in addition to getting smarter at promoting good health into old age.

Ngaire has combined theory and practice throughout her career as a researcher and General Practitioner – and she does so too in the program she leads for Ageing Well. The Ageing Well through Eating, Sleeping, Socialising and Mobility (AWESSOM) program is a combination of exploring the issues of ageing and trialling practical solutions for ageing well. Experts with diverse specialties have come together to offer four distinct projects with the joint goal of optimising function and wellbeing in older adults. The projects include statistical investigations of multimorbidity, a kaupapa Māori lifestyle management program, an exploration of the needs of older Pacific people, and interventions for dental health in care homes. Sleep health has been considered across the program and a cognitive health project is currently underway.

Multimorbidity Study

Multimorbidity is having two or more long term health conditions. It is a state that's best avoided because it's associated with a reduced quality of life, a higher likelihood of death, the need to take multiple medications, and make greater use of healthcare. And yet, multimorbidity affects one in every four adults in New Zealand.

The multimorbidity project in AWESSOM aimed to identify patterns of health conditions that led to admission into aged residential care or death. Associate Professor Hamish Jamieson of the University of Otago used InterRAI data to look at multimorbidity statistics for about 40,000 older people receiving community support services. Dr Ruth Teh of the University of Auckland analysed statistics from about 45,000 adults aged 65+ (55+ for Māori and Pacific people) registered with Tū Ora COMPASS Health and living in the community. Twelve chronic conditions were considered: hypertension, chronic obstructive pulmonary disease / asthma, ischemic heart disease, diabetes, osteoporosis, hypothyroid, stroke, congestive heart failure, depression, dementia, neurological disease, and cancer.

Ruth explains that clustering of the data showed that complex multimorbidity patterns were associated with an increased risk of admission into aged residential care and spending more time there than in the community for both Māori and non-Māori. The study did not observe a similar relation for Pacific people. She says they also found specific conditions – depression, dementia, and osteoporosis – that are more likely to lead to admission to a care home when they occur with heart disease or pulmonary disease.

Being able to identify such risk factors may allow for more targeted treatment approaches in future. The researchers are working with GPs to discuss the advantages of managing one condition at a time instead of treatment snowballing into polypharmacy. Patients will also have lifestyle priorities about which conditions they most want treated. Knowing the conditions that often occur together will enable more effective interventions to

be developed. And any initiatives that can delay or prevent admission to aged residential care will not only save expense, but also improve quality of life.

Ngā Pou o Rongo

Manawaora / The Centre for Health in Tauranga is doing healthcare differently from mainstream approaches. Managing Director Dr Anna Rolleston (Ngāti Ranginui, Ngai Te Rangi, Ngāti Pukenga) and colleagues, have developed a model of care that supports and motivates people to choose their own path to health and wellbeing. It acknowledges that learning about – and looking after our health – is a life-long process, that balance across physical, mental, spiritual, and social realms of health is important, and that interventions must be flexible to respond to the ups and downs of life. The model of care is drawn from mātauranga Māori, and the operational aspects incorporate Te Whare Tapa Whā. The people-centred philosophy behind Manawaora is proving popular and of benefit to health in several research trials.

In a study, funded by the New Zealand Heart Foundation, Anna and her team implemented a 12-week lifestyle management program to measure the effect it had on cardiac risk reduction. The program, named “Ngā Pou o Rongo”, offered participants a kaupapa Māori approach to disease management that included exercise, nutrition, and stress management strategies to improve their health. The success of this work led to a similar trial as part of the AWESSOM program.

The aim was to implement and evaluate *Ngā Pou o Rongo* with a focus on older Māori. People could join as individuals or with whānau to tautoko them. Holistically trained clinical exercise physiologists worked with each person to develop programs to meet their specific needs and desires. Participants were asked questions like, “What does hauora mean to you?” and “Are you living the quality of life you want to live?”. Participants appreciated this approach, “I am so grateful that there is a program that fits around our whānau, is designed by us, but then supported by professionals who

understand and listen to us”.

Anna and her colleagues are a rare breed in New Zealand – clinical exercise physiologists use their holistic understanding of how the body functions to help people prevent, manage, or recover from chronic disease and injuries. So, while participants could focus on lifestyle motivators such as being able to run around with mokopuna, staff would also be ensuring the exercise regimes were suited to the individual’s risk factors or underlying health conditions.

Hannah Lowe, Clinical Lead at the Centre for Health, knows the huge benefits of exercise from personal experience, so she has loved seeing people enjoying exercise as part of the program. She witnessed people making change they never thought possible, all as a result of the new knowledge they had gained. As one participant summed up, “I thought I was fit and healthy! Haha! But no, this kaupapa has completely opened my eyes to other areas that I thought I knew but actually didn't”. Quantitative outcomes on the effectiveness of Ngā Pou o Rongo are currently being analysed, but there’s no doubt it’s had a positive impact on some, “This has changed my life. I am going to keep coming.”

Pacific Peoples’ Wellbeing

The starting point for supporting people to live healthier lives for longer, is to know what the issues are. Not a lot of information is available on how Pacific communities in Aotearoa are faring, so, as part of the AWESSOM program, a study was designed to find out.

In Phase One of Ageing Well, Professor El-Shadan (Dan) Tautolo from the Auckland University of Technology (AUT), together with colleagues Dr Wendy Wrapson and Professor Stephen Neville, conducted a study entitled, *Healthy Pacific Grandparents*. This work involved older Pacific adults working in collaboration with researchers to identify and address the barriers they faced regarding social participation and living healthier lives. A priority the Pacific elders identified was foot health. Researchers subsequently worked with

the AUT podiatry department to deliver podiatry assessments and to provide education about maintaining good foot health. The older Pacific co-researchers felt empowered by the project and the study found good outcomes for mobility and independence too.

The success of *Healthy Pacific Grandparents* led to further opportunities for Dan and the team to continue working with older Pacific people, as part of the AWESSOM program. This time around, COVID-19 got in the way so recruiting participants was challenging. However, the research assistants who went into the field had good networks, were native speakers of Samoan and Tongan, and possessed excellent relationship building skills – culminating in their successful recruitment of 101 people. Surveys and physical measurements were undertaken to establish a benchmark regarding dental and sleep health, mobility, social connectedness, and general health to provide an indication of what support may be needed.

Analysis is ongoing, but already Dan has heard some recurring themes. A big challenge is that of maintaining the traditional approach of caring for elders in the home. Because people are living longer with complex needs and younger adults are having to work full time to support the family, there are increasing tensions around how to look after elders. Dan says families need to be aware of home support services that can assist them to look after their people at home – as well as the option of aged residential care if necessary.

Dan has also been using the opportunity to remind older people to get their medical check-ups and keep on top of health issues – he knows from experience with his own parents that health can deteriorate rapidly. Dan is hopeful that studies like this, identifying issues in Pacific communities and raising awareness of them, will enable better support to be put in place.

Dental Health

Dental care in aged residential facilities is a situation of high unmet need. Overall, residents’ oral health is suboptimal and there is minimal



oral care training for carers and nurses. People are now retaining more of their natural teeth, for longer. By old age, teeth are often heavily filled with complex dentistry, requiring a high level of maintenance. What is more, frail older people may rely on others for their daily oral care, and getting to a dentist off-site can be challenging. Moving to a care home increases your risk of tooth decay and, if you have dementia, that doubles the risk. Oral cleanliness is important throughout life, but in old age, it can become a matter of life and death. Aspiration pneumonia, for example, can be associated with poor oral care, a consequence of inhaling plaque or food remnants left on the teeth.

A multidisciplinary team of dentists, researchers, oral health therapists, dental hygienists, and nurses implemented an oral health intervention in care homes in Wellington and Wairarapa. Dr Moira Smith, co-director of the Health Promotion and Policy Research Unit at the University of Otago, wanted to investigate the feasibility of improving the oral health of care home residents and of embedding oral care policies and procedures in aged care facilities. The team provided training sessions to raise awareness among the staff of the importance of oral health for residents, to upskill staff in oral care, and co-design resources. Oral health therapists assessed about 80 residents and worked with staff members to support them in providing oral care for their residents.

Detailed analysis of the impact is currently underway, but the team is thrilled to have shown that such a programme is possible, and that it makes a positive difference. Staff were appreciative of the extra awareness around oral health that the research team provided, “we really do feel...supported...just having your presence in the building, knowing that you guys are here...to train us and to make sure that we're doing things properly”.

For dealing with this complex issue, Moira and the team believe there is a need for Government-

funded annual oral health assessments and care planning by dental practitioners in care homes, specifying oral care procedures, and including oral health in carer training, as well as in undergraduate programmes for doctors and nurses.

Sleep

“Sleep is a pillar of health that we don't always have much control over,” says Dr Rosie Gibson of Massey University. Physiologically, as we age, sleep declines, and it can become more irregular. Older people may take to napping during the day and sleeping less at night. For people living with dementia, sleep can become particularly problematic, having significant impacts on the waking wellbeing of the individual as well as family carers. Sleep is quite individual but it's an important factor to keep an eye on in old age especially at times of big lifestyle changes like loss of a partner, moving house, or illness and injuries.

With a background in psychology and experience working in aged care, Rosie is keen to progress sleep research in the field of gerontology. Research programs like AWESSOM provide excellent opportunities to do that. She embedded sleep research components into some of the projects with sleep measurements, surveys, and focus groups with older adults. Rosie is interested in understanding how to best measure, understand, and support sleep in different populations. For example, what specific approaches are required for Māori, Pacific people, and care home residents?

One of the interesting features emerging from Rosie's research is that there appears to be some disconnect between objective sleep measures and subjective opinions on sleep status. Standardised surveys indicate that over half of older participants score within the range for problematic sleep,

yet the majority still consider themselves to be sleeping well. It's possible that measurements aren't capturing the context – that people are coping fine with daily life because they're no longer working, or they don't mind being a bit sleepier. But there may also be some reluctance in reporting sleep issues or seeking help, as well as normalisation of problem sleep with ageing. While short term sleep disruptions are not usually problematic, it is important people are aware that they can get support for managing longer term conditions such as sleep apnoea and insomnia.

Ultimately, good sleep function is strongly linked to good immunity, cognition, and overall mental and physical wellbeing. Sleep influences quality of life, so it's worth looking after.

Conclusion

Strong childhood memories for Ngaire include the drive before Christmas each year from her home in Gore to her grandmother's place in Motueka. She and her six siblings would pile out of the car into their grandmother's garden which was full of ready-to-eat Tasman Bay produce like plums and peas. Her grandmother lived until the age of 95 and that got Ngaire wondering what kept her going for so long.

Ngaire now holds the Joyce Cook Chair in Ageing Well and she's on a mission to improve the lives of older adults in New Zealand. "What I can say about AWESSOM is that it's been really wonderful to watch the cross-fertilisation of ideas. The research gets richer the more we learn from each other". The next step is for the research to be linked into policy so that older adults are supported to live healthy lives and are given appropriate care when they become dependent. ■

Researchers:

- Professor Ngaire Kerse
- Dr Ruth Teh
- Dr Kathy Peri

- Karen Campbell
- Dr Lynne Taylor
- Dr Anna Ferguson
- Dr Moira Smith
- Professor Murray Thompson
- Dr Sue Lord
- Associate Professor John Pickering
- Dr Rebecca Abey-Nesbitt
- Ulrich Bergler
- Associate Professor Hamish Jamieson
- Professor Carol Jagger
- Dr Andrew Kingston
- Dr Sarah Mitchell
- Dr Rosie Gibson
- Ms Maraea Walker
- Dr Anna Rolleston
- Hannah Lowe
- Professor El-Shadan (Dan) Tautolo
- Professor Stephen Neville
- Dr Wendy Wrapson
- Dr Ofa Dewes
- Hoy Neng-Wong Soon
- Tulua Leumoana
- Stephanie Clare
- Louise Rees
- Jenny Hurn
- Dr Lynn McBain
- Dipan Ranchod
- Lucy Willard
- Diane Brereton
- Kathy Everitt
- Nazahiah Bakri
- Keiko Oda
- Khalid Abdul Jabbar
- Leigh Haldane
- Mariana Hudson

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- All our participants

Ageing Well through eating, sleeping and mobility



WHY?

Retaining mobility as we age, and independence for the activities of daily living, is of high importance for individuals, for communities, and for Aotearoa New Zealand as a whole. Yet many older adults are living with frailty and multimorbidity.

HOW?

The AWESSOM program consisted of separate research initiatives with the joint goal of optimising function and wellbeing in older adults.

WHAT?

Multimorbidity

Statistical analysis of complex multimorbidity patterns identified risk factors for admission into aged residential care. Knowing the conditions that often occur together will enable more effective interventions to be developed.

Ngā Pou o Rongo

Holistically trained clinical exercise physiologists developed a lifestyle management program based on mātauranga Māori. A trial with older adults is showing excellent potential for

improving health and wellbeing.

Pacific Wellbeing

Health surveys and physical measurements of older Pacific people started to fill knowledge gaps and provide a benchmark for various health indicators. Data will be used to determine what support is needed.

Dental Health

An oral health intervention in care homes showed that visits from oral health therapists make a positive difference to residents' oral health and care. Improved training and annual oral health assessments are recommended.

Sleep

Sleep measurements and surveys with older adults showed high levels of problematic sleep but low levels of self-reported problems. Research into how to best measure and support sleep in different populations is ongoing.

WHAT NEXT?

Linking the research into policy will enable older adults to live healthy lives and be given appropriate care when they become dependent.

TINANA

Māori model for brain health taking on a life of its own

***Ma te kōrero, ka mōhio, Ma te mōhio, ka mārama,
Ma te mārama, ka mātau, Ma te mātau, ka ora!***

*Through discussion comes awareness,
through awareness comes understanding,
through understanding comes knowledge,
through knowledge comes wellbeing!*

What better way to promote understanding of brain function and health for Māori, than to turn to mātauranga Māori for answers? The use of mātauranga for provision of health resources has multiple benefits: it offers insights from a holistic understanding of human wellbeing; it enables western science to be explored through a culturally relevant lens, thereby increasing Māori engagement; it adds an Indigenous perspective to mainstream health; and, ultimately, it acts to revitalise mātauranga thus strengthening cultural identity which is known to be strongly associated with improved wellbeing for Māori.

Mātauranga Māori is what Andre McLachlan (Ngāti Apa, Muaupoko) turned to when he was looking for ways to bring out the best in neurodiverse children. As a Māori clinical psychologist, he wanted a strengths-based model to promote understanding of how brains work. Andre found himself informally using te whare tūpuna (the ancestral meeting house) as an analogy for brain structure and development and that was the genesis for the research project “Te Roro: a Mātauranga Māori Study”, funded by Ageing Well.

Researchers at Te Atawhai o Te Ao Independent Māori Institute for Environment and Health, led by Director Dr Rāwiri Tinirau (Te Āti Haunui-a-Pāpārangī, Ngāti Rangī, Ngā Rauru Kītahi, Ngāti Ruanui, Ngā Wairiki-Ngāti Apa, Ngāti Tūwharetoa, Ngāti Maru), designed a study to investigate mātauranga Māori in relation to the roro (brain) and how this can contribute to maintaining and improving the health and wellbeing of the roro. They wanted to produce a resource for Māori health and education workers that would encourage Māori-centric, holistic approaches as a way of offering better support to those with brain conditions.

A team of Māori clinical psychologists, master carvers, and mātauranga experts delved deeply into traditional sources of knowledge. These included whakairo (carvings), karakia (prayers), mōteatea (chanted poetry and song), and pūrākau (stories). The objective was to bring to light the Māori understanding of the roro, its connection to the body, and its tapu (sacred) nature. The roro has many connections with atua (gods) that provide insight into its function.

Among the rich metaphors and intergenerational wisdom of mātauranga Māori, the whare tūpuna emerged as an informative analogy for thinking about brain health. For a start, as project coordinator and co-researcher Matariki Cribb-Fox explains, “All forms of cognition take place in the whare – that’s the home of wānanga and intergenerational knowledge exchange”. But also, the entire structure of the whare tūpuna can be considered a physical manifestation of an ancestor.

Walking into a whare tūpuna is described as walking inside an ancestor, with the koruru (carved figure at the front apex) being the head, the maihi (front bargeboards) being the arms, the amo (bargeboard supports) being the legs, the tāhuhu (ridge pole) being the spine, and the heke (rafters) being the ribs, among many other features. The section of the main ridge pole that extends from the front of the house to the front of the veranda is the roro. In some cases, the whole veranda area represents the roro. These structural aspects of the whare are linked to many layers of genealogical meaning making it ripe for use as a tool to bring concepts of brain health and its links to the nervous system into a physical, observable form.

Kupu whakarite (metaphors and similes) are used extensively in Māori oral traditions as a way of applying knowledge. The whare is already a useful framework in health with Te Whare Tapa Whā. So, the researchers held wānanga to weave together the mātauranga of the roro and te whare tūpuna, and Te Whare Tapa Whā, to develop a new model. Traditional meanings attached to the four main pou holding up the whare were found to complement the functions of the four main components of the brain: the brain stem, cerebellum and diencephalon, limbic system, and cerebral cortex. A western clinical understanding of brain development was interwoven so that by walking through the whare, you are also walking through a sequence of brain development.

When mātauranga Māori and Western science walk side by side towards a common goal, they learn from each other. The interweaving of both

knowledge systems has made for a powerful resource. The resulting model, *Te Whare o Oro*, has already been put to work to provide culturally enriching solutions for those working with or living with brain conditions.

Matariki Cribb-Fox (Ngāti Apa, Ngāti Pikiao, Ngāti Rangiwewehi, Te Āti Haunui-a-Pāpārangi, Taranaki Whānui) is thrilled with the response to *Te Whare o Oro*, “It’s taking on a life of its own”. It has become very popular because it resonates with people and they like how accessible it is, there’s a process to follow, and resources to support it. “Te Whare o Oro” has been piloted around the country for use with children with learning needs; the Ministry of Education want to develop it, and Kura Kaupapa want toolkits in Te Reo Māori. Although initially developed as a tool for identifying neurological difficulties, it has grown to have many uses, including as a reflection tool for life in general. The Kenepuru stroke unit have been in touch to discuss the viability of training doctors after a patient stumbled across the literature on it. There’s even international interest from other Indigenous health practitioners.

Matariki says the funding from Ageing Well has really helped with the production of resources to support the model. Providing tangible activities has been part of the success of its uptake. Matariki was raised very Māori. She didn’t use English until she was seven or eight. She understands the intrinsic models of Māori knowledge very well. In adulthood she could see the value in using a Māori framework to propagate concepts in mainstream Aotearoa, “My interest is in finding the value of the mātauranga process to bridge gaps”. When this project began, she didn’t know much neuroscience, “but listening to Andre explain synapses and axons I realised I could bridge the clinical and cultural divide by seeing Māori analogies for brain structure and function.”

Matariki takes pride in what she describes as the “responsible propagation of mātauranga Māori”. Her elders have a degree of protectionism around mātauranga, “but we can fall victim to protecting it so much that it gets forgotten”. Matariki worked on

the project with her husband Whatahoro Cribb-Fox (Ngāti Kahungunu ki Te Wairarapa, Ngāti Porou, Te Whakatōhea) and she notes, "This is not the first time we've been able to open the Māori world through Māori models of understanding and every time we do, it's really exciting. If work like this can begin to bridge the gap between Māori and Pākehā, then I'm really excited about that".

Accessibility has been a huge motivator for this work. The researchers want benefits for Māori because that is where the greatest need is, but that doesn't mean that the content is exclusively for Māori. Everyone goes through neurological struggles at some stage. If mātauranga can be an effective tool, then let's use it. And can't we all benefit from the visualisation that in the brain, just as in the whare tūpuna, there are places of light and dark, there are busy and quiet places, but there on the back wall, always guiding and advising you, are your ancestors. ■

Researchers:

- Dr Rāwiri Tinirau
- Morgan Tupaea
- Connor Pauro
- Matariki Cribb-Fox
- Whatahoro Cribb-Fox
- Dr Takirangi Smith
- Dr Andre McLachlan
- Dr Cheryl Smith
- Brigham Anderson
- Hine Maraku

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- To all who have helped in the development of "Te Whare o Oro".

Using Mātauranga Māori for brain health

WHY?

The use of mātauranga for provision of health resources has multiple benefits, not least that it strengthens Māori cultural identity which is strongly associated with improved wellbeing for kaumātua.

HOW?

Māori clinical psychologists, master carvers, and mātauranga experts explored traditional sources of knowledge about the brain. Wānanga were held to weave together the mātauranga of the brain, te whare tūpuna, and "Te Whare Tapa Wha", to develop a model of brain health.

WHAT?

Te Whare o Oro is a resource for Māori health and education workers to encourage Māori-centric, holistic approaches to supporting those with brain conditions. It is in demand for further use by numerous organisations.

WHAT NEXT?

Te Whare o Oro has taken on a life of its own. It has been piloted around the country for use with children with learning needs and is in demand for further use. The Ministry of Education want to develop it, and Kura Kaupapa want toolkits in Te Reo Māori.

TINANA

Talanoa for pacific wellbeing and brain health

Holo pē tu'u 'he ko e ngalu 'e fasi.

Stand firm, for the waves will ultimately break.

In Aotearoa New Zealand, diagnosis, education, and treatment of brain health issues routinely comes from a Eurocentric perspective that is not necessarily meaningful or relevant to the holistic perspective on health and wellbeing taken by Pacific Peoples. For health promotion initiatives, services, or interventions to be successful, appropriate cultural context is essential.

Dr Ofa Dewes of the Tongan Health Society's Langimalie Research Centre in Auckland initiated a project in response to community interest and Ageing Well's desire to fund work on Māori and Pacific brain health. Named, "Pacific cultures: building blocks for a socially involved and co-created approach to brain health among older adults", the idea was to investigate how older Pacific people participate in wellbeing activities and how that impacts them in later life. Ofa explains that they focused on social activities in relation to brain health rather than clinical aspects. The researchers wanted to explore how spiritual, cultural, and mental wellbeing activities can lead to healthier brains.

Tongan, Tokelauan, and Tuvaluan communities in Auckland and Wellington were approached to take part in the research. Talanoa (open conversations) were used as the format to start discussing wellbeing issues for older Pacific people. Community workshops took a "learning and reflection in action" approach and used every

day social activities, and language the participants identify with, to encourage contributions. Participants are co-investigators – while the researchers provide information about the study, they let participants guide the conversations and determine how they want to be involved in group activities.

Established social groups in the community have become more structured as a result of the project. They now have weekly meetings and activities because they're motivated to produce outcomes in the timeframe of the study. Ofa is impressed by the creativity she has witnessed with older adults working on crafts, making fishhooks from shells, and writing and recording songs. The groups have grown in numbers and become more outward focused during this project. The Tokelauan group in Auckland want to set up their own charitable trust so they can be independent beyond the life of the project and work on community initiatives.

In addition to the workshops, the researchers are conducting interviews with key informants and stakeholders to find out views on wellness services, what they find easy to access, and what the barriers are to better health. Recommendations will be developed once these interviews are complete.

The funding from Ageing Well has also boosted the connection with the community for wellbeing work undertaken within the Enliven rest homes. Mikaela

Shannon, Clinical Director at Presbyterian Support Central, says, "Without this project we wouldn't have had the time or opportunity to involve older Pacific people in our work. This has really opened doors and made things happen much faster".

Mikaela has been working on policy development at Enliven and usually she wouldn't have time to include a consultation process, so she's been thrilled to have the opportunity for connection and learning from Pacific people.

Enliven has a holistic approach to wellness and they want to support all their residents to receive individualised care. To do this, they have a wellness map that can be used to talk about individual preferences. They find out things like, "What do you like to do on a Saturday morning? How do you want to be dressed for visitors? How do you like your tea?" Currently there are English and Māori versions. As part of this project, they are developing a wellness map for Pacific people, and they've been able to work with locals to make sure that happens in culturally appropriate ways. The map will be translated into Tongan, Tokelauan, and Tuvaluan. Enliven has also been sharing some of what they've learnt with nurses in training at Whitireia.

PhD student Zanetta Toomata at the Centre of Methods and Policy Application in the Social Sciences, University of Auckland, analysed data from the Integrated Data Infrastructure to look at the prevalence of brain-related conditions in different ethnic populations. She looked at mental health, traumatic brain injuries, dementia, and stroke in people aged 50 years and over of Tokelauan, Tongan, and Tuvaluan descent. By far the most prevalent condition for which people had accessed services was mental health. Zanetta noted that there were some community specific differences in prevalence which may indicate that tailored approaches would be beneficial rather than a blanket Pacific-wide addressing of brain health issues.

In the meantime, Ofa says the wheel doesn't need reinventing. "There are a lot of services they can already reach out for. We need to utilise services we've already got and sometimes that's about building trust, relating things to normal life, and

talking about things in everyday language instead of using medical models and terminology. We talk about the strengths-based activities people can do to improve brain function."

In her work with families in communities, Ofa has also been finding out how Pacific people are preparing for their care in old age. It's getting more and more challenging for families to provide the quality of care that older members require. She says Pacific people are becoming more aware, and open to the possibilities, of retirement villages, rest homes or hospice care. She encourages families to have discussions earlier rather than later so there's a plan in place before any major accidents or health events.

Ofa is buoyed by the many strengths she's witnessed in the community – older Pacific people are standing firm! They see themselves as employable. They know they have a lot of useful experience after a lifetime of service to families, their local communities, and jobs. Participants enjoyed making their voices heard, had confidence in sharing stories, and were excited to attend the weekly programs. They also asked many questions so they know there are services they can access. But, for now, they're happy being independent, active, and contributing – the perfect way to look after their brain health. ■

Researchers:

- Dr Ofa Dewes
- Zanetta Toomata
- Associate Professor Barry Milne
- Dr Glenn Doherty
- Nicola Turner
- Mikaela Shannon
- Noelette Matthews
- Malia Hamani
- Reverend Suamalie Naisali
- Reverend Tui Sopoaga
- Faletua Ane Sopoaga

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- Translation credit: Dr Ha'ano Fonua



Taking a Pacific approach to brain health

WHY?

Appropriate cultural context is necessary for health initiatives to be successful. Diagnosis, education, and treatment of brain health issues routinely comes from a Eurocentric perspective that is not necessarily meaningful for Pacific Peoples.

HOW?

Tongan, Tokelauan, and Tuvaluan communities in Auckland and Wellington engaged in discussion, community activities, and interviews with the researchers to identify barriers to better health and explore ways of promoting wellbeing. Pacific community members also engaged with Enliven rest homes to contribute to their policy development.

WHAT?

Communities have developed their own strengths-based, culturally relevant activities for improving overall wellbeing which will positively impact brain health. Enliven rest homes have developed a wellness map for Pacific people.

WHAT NEXT?

Recommendations will be made about effective wellness services, how to improve access for Pacific people, and what further support is needed.

TINANA

The road to strengthening kaumātuatanga

Whāia te mātauranga hei oranga mō koutou.

Seek after learning for the sake of your wellbeing.

In a colonised country such as Aotearoa New Zealand, modern health policies and support services are overwhelmingly designed from a European perspective, and are often not suited to Māori values or preferences. This acts to further disadvantage tangata whenua who have already survived a long history of discrimination and disadvantage through the process of colonisation.

To turn the tide and encourage development of policies and processes that benefit Māori, researchers are working with kaumātua to gather their preferences. “He Huarahi Whakapakari Kaumātuatanga” is a project co- led by Charles Waldegrave of the Family Centre Social Policy Research Unit in Te Awakairangi Lower Hutt and Dr Catherine Love (Te Ātiawa, Taranaki, Ngāti Ruanui, Ngā Ruahinerangi). It aims to produce evidence-based recommendations for government departments and service providers who interact with kaumātua.

The importance of taking a Māori and kaumātua-centric approach to health and social initiatives was starkly highlighted in research undertaken in phase one of Ageing Well. Charles, along with Professor Chris Cunningham (Ngāti Toa, Ngāti Raukawa, Te Ātiawa, Te Ātihaunui-a-Pāpārangi) and Taimalieutu Kiwi Tamasese, looked into loneliness and social isolation among older Māori and Pacific people. They found that commonly

used Eurocentric scales do not adequately measure loneliness for Māori and Pacific people. This means that people can register as “not lonely” on standard scales when, in fact, they are lonely.

Chris explains that, for Māori and Pacific Peoples, there are elements to loneliness that are not based solely on the company of people. Pacific elders felt lonely for their language or their village. Māori elders expressed feelings of loneliness because of loss of cultural structure and process. This concept of “cultural loneliness” is completely missing from measures currently in use. Therefore, as Charles argues, “how can the current system meet people’s needs, if it’s not even measuring them accurately?” It is likely that some of the disadvantage that kaumātua face today results from a lack of culturally appropriate measurement tools.

Take, for example, key government departments such as Te Tari Kaumātua The Office for Seniors – they are working hard to improve the lives of older adults and especially those who are marginalised. But if staff don’t have reliable evidence about what issues kaumātua are experiencing, or what forms of support they would welcome, then they’re unlikely to succeed in improving outcomes for Māori health and wellbeing.

Co-researcher Monica Mercury (Te Iwi Morehu, Ngāti kahungunu ki Wairarapa, ki Te Wairoa, Ngāti

Haina) knows that the answers lie in talking with kaumātua. She has been travelling the motu, responding to tono, and weaving connections to find groups of kaumātua keen to engage with the mahi. Wānanga with diverse groups from remote Aotearoa to the big cities are providing valuable information about what's important for kaumātua. Once the kōrero are complete, Monica will do a thematic analysis to identify key messages, and these will form the basis for a set of recommendations.

Older Māori have experienced first-hand the policies and directives that led to suppression of Māori culture, like being punished at school for speaking te reo, and their treatment as second-class citizens. Hence there are low levels of trust among this generation for government-run services, including the health system. This makes it especially important not just to involve kaumātua, but also to communicate with them about support that's already available and what improvements could occur in health and social service provision for older Māori in the future. For the sake of wellbeing, there is learning to be done both inside and outside of the system.

Building back trust can improve engagement. As one kaumātua described, it can be achieved through simple, sincere actions. She had been spending a lot of time in hospital with a whānau member. She was disenchanted with the whole system and how they had been treated – "like they didn't know anything". She had low hopes for a family conference that had been called by the health professionals. The Pākehā male doctor came in. He did a hongi / hariru with everyone. He did a mihi to the entire whānau in Māori. She felt it was a genuine and sincere moment and that he understood the importance of kawa and tikanga for them as Māori. Once he'd done that, she felt like she could connect with him. Understanding Māori ways of being and doing made such a difference in opening lines of communication.

The Family Centre Social Policy Research Unit is structured with a three-tikanga approach, whereby Māori, Pacific, and Pākehā sections are on equal and equitable footing. The Pākehā section has a particular accountability to the

other two sections to guard against unconscious European bias. Co-creation of research is at the heart of their operations. The researchers have published on their co-creation process and, as part of that, have shared some of their personal drivers for the work they do.

In the words of Charles, "I think the colonial process continues subtly today through a whole range of social and economic processes that operate out of Western / Northern assumptions which do not reflect the values and ways of doing things among the indigenous people of Aotearoa... It is important to me that I ... don't replicate the subtle controls and definitions used in social indices now and in the future, as so much current research practice continues to do."

In the words of Monica, "I often thought of my own father when I started this journey. He was of Māori descent and grew up in 1940s New Zealand, at a time when being Māori was not valued. My dad was told by many of his teachers that he didn't have the intellect to be anything more than a "labourer or factory worker" because Māori were only good for doing "practical tasks"... Dad was actually incredibly smart and was a very good builder and I think that if he had been given the opportunity to attend university, he would have been a fabulous engineer as he was always fascinated with how things worked or were built... I think that my father would have been honoured to be asked to participate in the co-creation hui and I do wonder what he might have said in them".

The road to strengthening kaumātuatanga is giving voice to kaumātua, ensuring that they are co-creators of relevant research, and that their preferences are included in the formation of policies, resources, and services. In this way, instead of marginalising Māori and continuing the process of colonisation, health and social initiatives will be culturally enriching and successful. Kaumātua will thrive, rather than just survive, as tangata whenua in Aotearoa. ■

Researchers:

- Charles Waldegrave
- Dr Catherine Love
- Professor Chris Cunningham
- Dr Giang Nguyen
- Shamia Love-Shariff
- Wayne Makarini
- Monica Mercury

Acknowledgements:

- Participating kaumātua



Gathering kaumātua preferences

WHY?

New Zealand's health policies and support services are overwhelmingly designed from a European perspective to serve the mainstream majority and are often not suited to Māori values or preferences.

HOW?

A co-creation approach was taken to ensure that kaumātua were part of the research process. Wānanga were held with diverse groups around New Zealand to give voice to kaumātua about what's important for their health and wellbeing. A thematic analysis will be used to identify key messages.

WHAT?

"He Huarahi Whakapakari Kaumātuatanga" is a project helping to ensure that kaumātua preferences are included in the formation of policies, resources, and services. Evidence-based recommendations will be produced for government departments and service providers who interact with kaumātua.

WHAT NEXT?

It is hoped the recommendations will lead to health and social initiatives that are culturally enriching and successful for Māori.

TINANA

Gardening grows wellbeing for kaumātua

Mauri tū mauri ora.

An active soul is a healthy soul.

What if a much-loved Kiwi pastime could stave off frailty and promote wellbeing into advanced age? Gardening is one of New Zealanders' favourite activities. For adults over the age of 80, gardening ranked as the most preferred activity for Māori and non-Māori in a study that surveyed over 600 residents of central North Island. Gardening gets us outside, gets us moving, gives us purpose, connects us with the Earth, and often involves working with others and producing healthy food – it is well-known as being good for us in many ways. But can it prevent the onset of frailty in older adults?

In Phase One of Ageing Well, Dr Ruth Teh of Waipapa Taumata Rau University of Auckland assessed the effectiveness of group exercise and nutrition courses for preventing frailty in older adults. While the results were promising, showing improvements at the 6-month mark, the benefits were not retained over longer timeframes. This was possibly because people didn't maintain the exercise regime or nutritional tips. Additionally, there was very low engagement by Māori.

Given that health expectancy and life expectancy are lower for Māori than for non-Māori, Ruth started thinking about what activities could close the gaps. For Phase Two research, Dr Mere Kēpa, a long-time collaborator of Ruth's, called on her

connections with kaumātua in Whangārei. The Te Pouwhenua o Tiakiriri Kūkupa Trust Inc. came on board as they saw the need to address health disparities for Māori. The community-based and university-based researchers worked together to co-design a programme to optimise vitality in older adults.

Strong themes arose from two days of wānanga with a group of kaumātua. It was clear they considered the elements of healthy ageing as a complete package: being with whānau, being active in their community, natural kai, spirituality – a holistic approach to wellbeing. The researchers worked to bring these concepts into a form that would also promote mobility and physical independence. Unlike the indoor, individual experience of going to the gym, it was quickly realised that gardening could be harnessed to meet the needs of healthy ageing for Māori.

The "Ageing Well in Outdoor Gym" project was established with a 6-month trial involving 15 kaumātua. Land was offered for gardening by one of the participants. Two of the kaumātua were very experienced gardeners so they guided the gardening activities. Every week the group would come together for three hours and carry out different activities like clearing the land, setting and organising layout of plots, preparing and



distributing potting mix, setting up a watering system, planting vegetables, weeding, tending the plants and harvesting. A communal lunch was held at every session – a way to reflect on their work, share stories, enjoy produce from the garden, and celebrate achievements.

With her interest in preventing frailty, Ruth wanted to collect measurable data on whether the gardening was leading to physical improvements for participants. She worked with the kaumātua to choose feasible tests that could track progress over time. Balance tests, grip strength and flexibility tests, all with good validity for indicating frailty status, introduced an element of healthy competition. The incorporation of physical tests into a common hobby also highlighted the applicability of maintaining physical attributes, “Ok, I can see how important balance and flexibility are if I want to reach up and tie the beans.”

The benefits of the gardening project are very obvious. This is because the participants love it so much. Ruth says this is very clear from the smiles and the comments, “Ruth, I really enjoy the gardening. We just talk. We have no pressure.” They work at their own pace, but they know they have achieved something communally. Their mokopuna can join them in the outdoors, they’re putting food on the table, and they’re enjoying improved abilities, “I don’t struggle up

the hill anymore, I run up the hill.”

Ruth is thrilled with the engagement of the kaumātua in the Outdoor Gym project. Her heritage includes growing up in Malaysia with a grandmother who had green fingers – whatever she touched, just grew. And her cooking was so good that Ruth would often go to her place after school. At the age of 80, her grandmother had a big stroke. She could no longer garden or cook but she didn’t give up. She changed her diet, exercised every day, and lived for another 15 years. Ruth wondered what was giving her such resilience to keep going. It seemed she had an intrinsic ability that worked together with her social environment to give her a good life. This inspired Ruth to embark on research in nutrition, heart health, and older adults, instead of an engineering route.

The popularity of the “Ageing Well in Outdoor Gym” project enabled the team to get additional funding from Lottery Health Research. To make the programme adaptable around the motu they wanted to formalise the structure and make sure it would work for bigger groups. The Maunu Garden Project in Whangārei is hosting the current programme that now includes 35 kaumātua and is open to the public. Results from the physical assessments are still being analysed, but regardless, Ruth hopes the model they’ve developed will be adopted nationwide.

Many participants have continued to attend gardening sessions beyond the trial periods, demonstrating that this model is more appealing to older Māori than the exercise and nutrition classes Ruth previously investigated. Participating in something that resonates, or is already a hobby, is obviously going to be more sustainable than a prescribed exercise regime. And given that gardening is a traditional Māori activity that meets so many wellbeing needs, it is high time that this pastime was revitalised as a pathway to good health for kaumātua.

Having seen the hard work her grandmother did to stay healthy after a debilitating stroke, Ruth is enthusiastic about the potential to stall or reverse frailty with lifestyle interventions. She is adamant that the mentality of functional deterioration being part of old age must change.

“Everyone needs to know that if they do their best to stay as active as they can, they will improve their health expectancy.”

Find some-thing you love doing – and for many New Zealanders that’s gardening – and make it a habit to stay active, and thereby healthy. ■

Researchers:

- Dr Ruth Teh
- Professor Ngaire Kerse
- Dr Mere Kēpa
- Associate Professor Marama Muru-Lanning
- Eve Leilua
- Anne Leahy
- Te Pouwhenua O Tiakiriri Kūkupa Trust

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- Maunu Gardens
- All our participants

Gardening for kaumātua wellbeing

WHY?

Regular exercise and good nutrition are important for stalling frailty but standard exercise and nutrition classes for older adults have low engagement from Māori. What if the popular hobby and traditional Māori activity of gardening could be harnessed to improve kaumātua wellbeing?

HOW?

Community and university-based researchers worked together to design a program of communal gardening, social connection, and sharing kai. They trialled it over six months and measured various physical health indicators.

WHAT?

The “Ageing Well in Outdoor Gym” program proved popular with participants who reported improved physical abilities and wellbeing, and many continued attending beyond the trial period. The structure has been formalised and tested for larger groups, and the Maunu Garden Project in Whangārei currently hosts the program.

WHAT NEXT?

The model is ready to be adopted nationwide as an effective pathway to good health for kaumātua.



TĀTAI HONO — CONNECTION

Science Stories





Tātai Hono
Connection



TĀTAI HONO

Caregivers need more care



Should an emergency situation occur, please put your own oxygen mask on first, before attempting to help those around you.

As the familiar airline safety message implies, we are of no use to anyone if we haven't looked after ourselves first. When we find ourselves looking after someone else, perhaps suddenly or unexpectedly, it's crucial that we take extra care and ask for support to ensure our caregiving work is sustainable and rewarding. As a society, we need to give more support to informal caregivers.

Recent research from Ageing Well shows that a high proportion of people caring for older adults feel distressed or overwhelmed or unable to continue with their duties – and the numbers are increasing.

Associate Professor Hamish Jamieson was surprised by these results. He's been researching social isolation for Ageing Well, so he knew that loneliness is a problem for older people with about 20% experiencing loneliness some or most of the time. But he wasn't expecting to find that carer distress is a bigger problem, with occurrence more than double that for loneliness.

For Hamish, caregiver distress stands out as a crucially important issue to address because the health and wellbeing of older people, not to mention the health system itself, relies on the informal care given by friends and whānau. These carers need to be happy and healthy so they can provide opportunities for kaumātua / elders to age

well in their own homes or in family homes.

The caregiver research came about from work in Phase One of Ageing Well in which Hamish and colleagues spearheaded the use of data from InterRAI. InterRAI is a database that was designed internationally by a network of academics and clinicians with the aim of bringing a comprehensive and standardised approach to assessing health. Aotearoa New Zealand was the first to use it nationwide for people accessing publicly funded community services or residential care.

InterRAI enables individuals to receive appropriate recommendations for clinical care, but it also acts as a phenomenal resource for investigating many aspects of health. With hundreds of thousands of anonymised assessments going back to 2012, InterRAI can provide a robust understanding of a population's needs.

Creating new knowledge from existing data is rewarding for Hamish. He started the Big Data and Better Ageing Research Group, based out of the University of Otago, with a particular focus on using InterRAI information to improve ageing. He is encouraged by the growing number of researchers using big data to explore everything from dementia to fractures to medicine use.



Knowing that InterRAI tools include questions about caregivers, the researchers decided to track carer distress, with an emphasis on whether the COVID-19 pandemic had an impact. Assessments from over 144,000 older adults were analysed and carer distress was registered if a “yes” was recorded for one or more of the following: “informal helper unable to continue caring activities”; “primary informal helper expresses feelings of distress, anger or depression”; “family or close friends report feeling overwhelmed by person’s illness”.

The lockdowns we had in New Zealand in response to COVID-19 impacted people in a variety of ways, but they didn’t impact carer distress as much as anticipated. There was a jump in distress in March 2020 when the first lockdown was announced but, by the end of 2020, the prevalence was almost back to pre-COVID levels.

More notable was the overall high and increasing occurrence of distress, with about 35% of carers suffering distress in 2012 and about 47% by the end of 2020.

Big picture reasons for the upsurge in caregiver distress are probably societal: improved disease control means older people are living longer, they’re able to stay home longer, but they’re not necessarily fit and independent so there’s more demand for in-home carers; an increasing proportion of older adults in the population is putting more pressure on the “sandwich generation” (those looking after both children and parents); women disproportionately carry

the caregiving load, and with high financial pressures and high employment rates, many carers are now also in full-time paid work.

Lower levels of risk for distress were observed among carers looking after Māori and Pacific kaumātua. This may be because Māori and Pacific people more commonly live in multigenerational households and caregiving is viewed as a joint responsibility that respects the older generation and is supported by the wider whānau. However, the team’s Māori researchers and advisors highlight that the cultural expectation on family members to care for frail kaumātua can lead to stress that is suppressed or under-reported due to “cultural shame”. There can also be a reluctance to speak to clinicians because of the fear that the “system” might intervene or take over. This tension may contribute to other family issues. Redirecting funding for external carers to supporting the care activities of whānau would help alleviate this situation.

The researchers are currently analysing changes through time in loneliness and carer stress across different ethnicities. They have found that InterRAI data is not particularly useful for identifying risk factors for loneliness and carer stress because of the limited number of questions included on these topics. However, insights into the permanence of these issues can be obtained. Preliminary findings show that loneliness is often a temporary issue whereas carer stress is more enduring with less likelihood of improvement.

Discovery of the widespread and enduring nature of carer distress highlights the urgent need to implement the *Mahi Aroha Carers' Strategy Action Plan* and recommendations from *The State of Caring in Aotearoa* report. Caregivers must remain a sustainable contribution to New Zealand's healthcare system because right now the healthcare system needs this unofficial workforce.

For individuals in caregiving roles, support and time out can help to maintain health and well-being and prevent the situation from becoming exhausting and unsustainable. Being clear with friends and family about what would be helpful and being open to accepting external help can boost informal support and maintain social connections. It is also important to find out what formal support is available. GPs and Age Concern can advise on these services. Most importantly, put your oxygen mask on first – don't try to be a superhero and do everything alone. The last thing your older person needs is a burnt-out caregiver. ■

Researchers:

- Associate Professor Hamish Jamieson
- Professor Philip Schluter
- Dr Rebecca Abey-Nesbit
- Dr Annabel Ahuriri-Driscoll
- Hans Ulrich Bergler
- Dr Jacqueline Broadbent
- Dr Michaela Glanville
- Dr Sally Keeling
- Irihapeti Bullmore
- Hector Matthews
- Mardi Postill
- Deb Gillon
- Canterbury District Health Board

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- Louise Rees

Providing better support for caregivers

WHY?

The health and wellbeing of many older people, and in part, the health system itself, relies on informal care provided by whānau. Informal carers are finding it increasingly hard to carry out this work in a sustainable manner.

HOW?

The researchers tracked carer distress between 2012 and 2020 by analysing InterRAI assessments from over 144,000 older adults.

WHAT?

Results showed that a high and increasing proportion of people caring for older adults feel distressed, or overwhelmed, or unable to continue with their duties, with about 35% of carers suffering distress in 2012 and about 47% by the end of 2020.

WHAT NEXT?

There is an urgent need to implement the *Mahi Aroha Carers' Strategy Action Plan* and recommendations from *The State of Caring in Aotearoa* report to retain informal caregivers as an important part of New Zealand's healthcare system.

TĀTAI HONO

Short film shows strength in connection

*Anō nei he pōukutukawa korua, e whātoro ana l ōno here.
Ki ōna takiaho. E hii au te kaha.*

*Just as the pōhutukawa, whose roots seek out those of its
kind to be strong, so must we cling to each other.*

If loneliness is the scourge of old age, then social connection is the antidote. Being socially active is not only good for quality of life, but also beneficial for health – lowering the likelihood of dementia, stroke, and heart disease. However, many things get harder with age, and socialising can be one of them. Whether it be that family or friends have moved away, become ill, or died, or that transport is challenging, finding the time and energy is hard, or ageism gets in the way – there can be more obstacles to getting together for older adults.

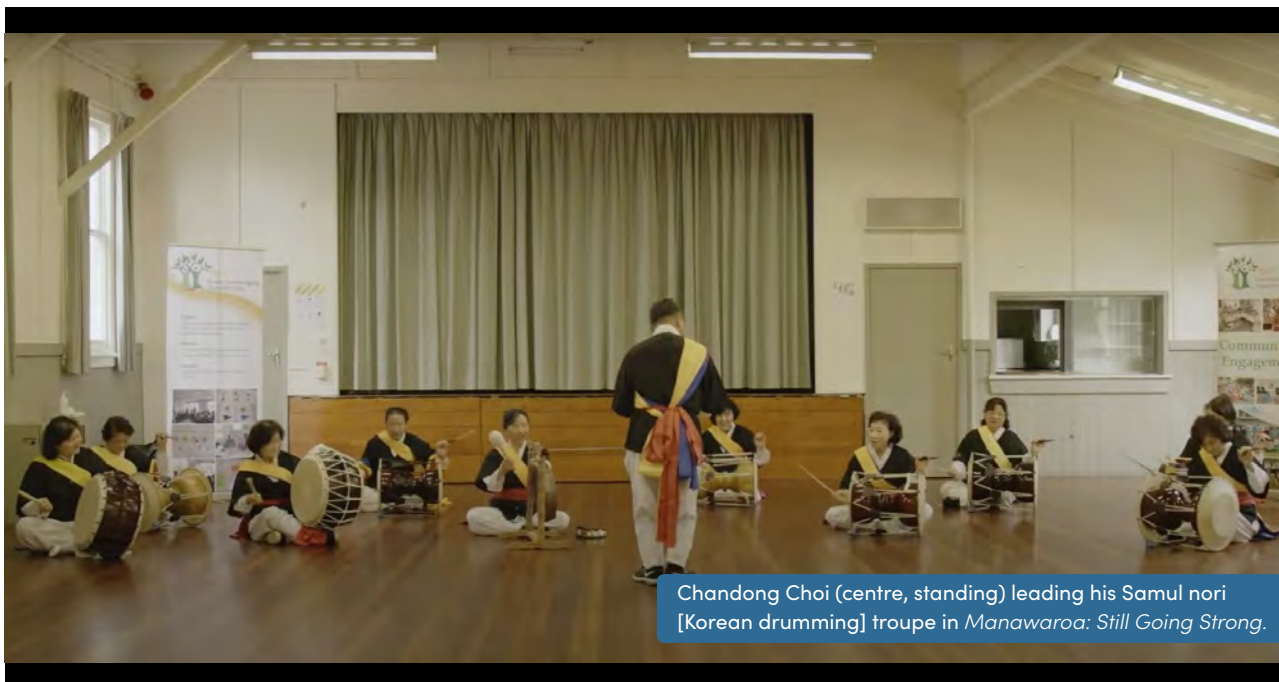
Research on loneliness in Phase One of Ageing Well clearly showed that older adults want to achieve social connection through meaningful activities with their families and communities, rather than being passive recipients of specially designed initiatives. They expressed that increased public awareness of loneliness in old age, and more favourable attitudes towards the contribution of older adults to the community, would strengthen their ability to stay connected. They also especially valued intergenerational connection.

Out of these messages, the five-minute musical animation “Elder Birdsong” was born, which succinctly highlights the challenges older people face and the resilience they manifest in dealing with them. Dr Lisa Williams, from the Te

Ārai Research Group at Waipapa Taumata Rau University of Auckland, explains that using art to communicate research findings is a powerful way of enabling people to have an emotional response to knowledge. “We want to make people feel something. That’s how change happens.” Principal Investigator Professor Merryn Gott agrees, “When you’re trying to change social attitudes, you need different mechanisms, you need to connect with people”. So, for their Phase Two project, Lisa and Merryn turned to film again, this time with the aims of challenging negative stereotypes and celebrating the agency and community contributions of older adults.

The anthology film *Manawaroa: Still Going Strong* is the result of this mahi. Five kaumātua were recruited and matched with young filmmakers with shared cultural backgrounds or values. The researchers literally put intergenerational social connections to work, with each filmmaker interviewing and compiling an insight into their older person’s social life.

The film demonstrates that there are myriad ways to achieve social connection – volunteering, time with friends and family, pursuing passions, finding new hobbies or causes. By sharing their personal motivations, the featured kaumātua inspire



Changdong Choi (centre, standing) leading his Samul nori [Korean drumming] troupe in *Manawaroa: Still Going Strong*.

others to make a conscious effort to maintain connections. Whaea Whio Hansen explains what drives her, “Retired people have information and knowledge that is very useful, I believe, to today’s wahine or the women of today. I’m passionate about the fact that our women have an important role on the marae. And so, I decided I was going to do as best as I can to fill my kuia’s shoes.” Changdong Choi shares, “Through music and Samul nori (Korean drumming), I hope to get to know people and continue a journey with my community, and to spend time together, and to form deeper relationships and establish new ones – that is the reason why I continue to do this.” Virinder Aggarawal admits, “It doesn’t matter if it was morning or evening or anytime, if there was some occasion where some volunteering was needed, I was always there.”

Voices of the older adults are heard loud and clear, and the film picks up nuances of these lives more impactfully than a scientific paper. While Virinder states conclusively, “Social interaction has been one of the most important things in our lives”, there are others who touch on the difficulties. Bonnie Horne says, “I don’t see how anyone can survive in total isolation. And the struggle for many people as they age is maintaining social connections. And that’s the saddest thing – that you can get

to the latter part of your life and be depressed.” Rosalie Williams comments, “It’s a very interesting situation, this being old...and how difficult it is to deal with a lot of the issues that come up health-wise, mentally wise, and how to motivate oneself. All of that, it makes you really appreciate in a sense all what you have and all what you’ve done in the past – you get a greater appreciation of life.”

Te Ārai Palliative Care and End-of-Life Research Group prioritises equity issues in their research. Co-Director Merryn Gott was motivated to use a partnership approach with Māori when she moved from the United Kingdom to New Zealand 14 years ago. She reached out to Co-Director Dr Tess Moeke-Maxwell to collaborate, and she has been learning from Māori colleagues and the Te Ārai Kahui Kaumātua ever since. In December 2023 they celebrate 10 years of Te Ārai. From the beginning, they’ve used arts-based knowledge translation to get messages across, partnering with artists from other faculties. Many of their visual resources can be found on their website.

Manawaroa has been well-received at Gerontology conferences in New Zealand and Australia. It has become a resource for volunteers at Age Concern and is being used to promote discussion about intergenerational social

connection among nursing and health science students. After watching the film, students agreed that promoting intergenerational connection is important, that we all have a part to play in it, and that there are mutual benefits to engaging in it. Young people can learn cultural wisdom and family history and older people enjoy being stimulated by new knowledge from the younger ones.

For Merryn and Lisa, an important thread that runs throughout their work is that of honouring people's stories, so, another sign of success has been the appreciation from participants and families. Rosalie has passed away since the filmmaking and her part was shown at her funeral. Lisa says, "that shows we've portrayed the lives of these individuals in a meaningful way."

The making of *Manawaroa* is a microcosm of the kind of connections that society itself could benefit from – young and old working together to

understand each other and coming out stronger because of the knowledge and experiences they have shared. ■

Researchers:

- Professor Merryn Gott
- Dr Lisa Williams
- Dr Tess Moeke-Maxwell
- Associate Professor Janine Wiles
- Tessa Morgan
- Associate Professor Shuchi Kothari
- Associate Professor Sarina Pearson
- Craig Gainsborough
- Dr Lovely Dizon
- Peter Simpson

Acknowledgements:

- The film students and older participants

Promoting social connection using art

WHY?

Being socially active is beneficial for health and quality of life, but it can be hard to maintain for older people. Previous work identified that increased public awareness of loneliness in old age, and more favourable attitudes towards the contribution of older adults to the community, would strengthen their ability to stay socially connected.

HOW?

The researchers used filmmaking as a mechanism to connect with people and thereby break down barriers and change social attitudes. Young filmmakers worked with older adults to foster intergenerational connection.

WHAT?

The anthology film *Manawaroa: Still Going Strong* was created to provide insights into the numerous ways elders contribute to communities and achieve social connection.

WHAT NEXT?

The researchers would like the film to be disseminated widely to promote discussion and understanding of the importance of intergenerational connection for the health of older adults and a thriving society.

TĀTAI HONO

Navigators to support young Pacific carers



Caring is everything, not just anything

'Oku kātoi héete 'ofa e mé'a kotoa pē, 'o ikai ko ha mé'a noa pē.

Pacific people place a high cultural and personal importance on being able to look after chronically ill or disabled family members at home. A high proportion of Pacific elders are cared for by their kaiga (family). However, that shouldn't mean carers are working in isolation – formal community and health system support is crucial for ensuring that the valuable resource of informal caring remains sustainable. Pacific families have a higher proportion of young people (aged 15–24) in caring roles compared with other cultures. This makes it even more imperative that carers are connected to sources of formal support and are acknowledged for providing an important role in society.

Dr Ofa Dewes, Fiji-born of Rotuman, Tongan, Tuvaluan, Tokelauan ethnicity, with affiliation to Ngāti Porou, is focused on giving back to her community through research into Pacific People's health and wellbeing. She was recently made a Member of the New Zealand Order of Merit which she says is an acknowledgement of the communities she's worked with and of her family's support. She is planning to "put it to work" immediately. She admits, "If there's a gap, that's a gap I want to step into." Highlighted in *Mahi Aroha*, the Ministry of Social Development's Carers' Strategy Action Plan 2019–2023, was the gap in knowledge about the experiences of younger carers – so Ofa set out to gather more information.

Building on research from Phase One of Ageing Well, in which she explored the experiences of Pacific carers looking after terminally ill family members, Ofa wanted to know whether the caregiving experience was different for younger carers. What are the impacts of caring responsibilities on young people? Are there differences in what they need support-wise?

Through her strong connections with Pacific communities, via the church and primary health care providers, Ofa recruited 30 young people who had significant and primary caring roles at home. Usually, they were looking after parents and / or grandparents with chronic health conditions or disabilities. She interviewed most of them herself in person – she says it's important to meet participants and get an understanding of the wider issues in the household. A further 22 stakeholders participated in focus group interviews. Through outbreaks of COVID-19 she took extra measures to ensure everyone was safe during the face-to-face meetings.

The interviews demonstrated that young carers take their responsibilities very seriously. Participants spoke about an expectation and a sense of duty for looking after parents and grandparents. "We have been role modelled since childhood of how to care for our own people."



They see caring as their way of expressing gratitude for what they've received from the older generation. "I guess it's just my turn ... giving back that sort of care for her that she gave me since I was a little girl."

However, responses showed a wide range of experiences regarding levels of support and coping. Ofa was impressed to find families who had set themselves up like a board of directors – they were very organised with lists of tasks and rosters. They called on their families or networks, they knew when to give each other breaks, they had good access to information, and they celebrated small successes. Young people called on their faith to contribute to their spiritual well-being, used social media to keep in touch with friends when they couldn't leave the house, and learned to have time out when they were feeling stressed.

On the other hand, there were families with very little information, no outside support, few resources, often with the caring responsibilities falling to a single person who got little time outside the house – these young people were struggling.

Ofa was left with a strong impression that young carers are an important workforce in the community – often doing the complex or physically demanding tasks of doctors, nurses, and social workers – and yet the resources and support are patchy. Stepping into the role of carer can

happen unexpectedly, so these people are having to improvise and learn on the job at the same time as often having to forgo their education or employment opportunities. At the very least, they need to be informed about what support is available so they can provide good care without compromising their own health and wellbeing.

Tui Moe 'Amanaki is a service initiative that has arisen out of this research. In Tongan, the name means believing in and hoping for better (treatment, health) and it is a programme designed to achieve better health and wellbeing for Pacific carers and their families. The Auckland-based primary health care provider, Tongan Health Society, piloted the programme as part of their social services unit. All family carers who presented to the Society's Langimalie Clinics were given opportunities to meet with a navigator to see if they could offer help. The navigator becomes a key contact for family carers, to assess their needs, advocate for them, inform them of appropriate services, help them access resources in a timely manner, and liaise with clinical staff on their behalf.

Feedback is that *Tui Moe 'Amanaki* is meeting a need in the community. The Tongan Health Society have committed to keeping it running. However, for carers around Aotearoa, the initiative needs rolling out further, ideally with tailoring to suit individual communities. The inaugural navigator

for *Tui Moe 'Amanaki* in Auckland had extensive experience of caring. She grew up in a family that provided care for her older sister living with disability from birth. She understood the position of carers and knew that the navigator role was there to ensure that formal support is accessed, and that the mental and physical health of carers is looked after as well as the health of family members being cared for.

In addition to support for young people in their caring roles, Ofa is eager to see opportunities for young carers – like easier pathways back into education and employment or formally certifying the skills they've developed during their caring years. Most of all, Ofa hopes to see greater recognition for young carers and the vital support they provide, not only to their families, but to the health system as well. ■

Researchers:

- Dr Ofa Dewes
- Tilila Muller
- Kylah Williams

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- Tongan Health Society Inc, Dr Glenn Doherty
- Pacific Home Care, Hamish Crooks
- NZ Council of Christian Social Services, Trevor McGlinchey
- All our participants
- Translation credit: Dr Ha'ano Fonua

Supporting young Pacific carers

WHY?

A high proportion of Pacific elders are cared for by young (aged 15-24) family members. The Ministry of Social Development's Carers' Strategy Action Plan identified a gap in knowledge about the experiences of younger carers.

HOW?

The researchers interviewed 30 young carers and ran focus groups to discover the issues, coping strategies, and how to provide better support.

WHAT?

Interviews revealed that young carers are an important workforce and yet resources and support are patchy. *Tui Moe 'Amanaki* was developed as a service initiative that provides navigators who put family carers in contact with appropriate support.

WHAT NEXT?

Tui Moe 'Amanaki needs rolling out beyond Auckland so that formal support for young carers can be accessed across the country. Recognition for young carers could include providing easier pathways back into education and employment, or formally certifying skills they've developed during their caring years.



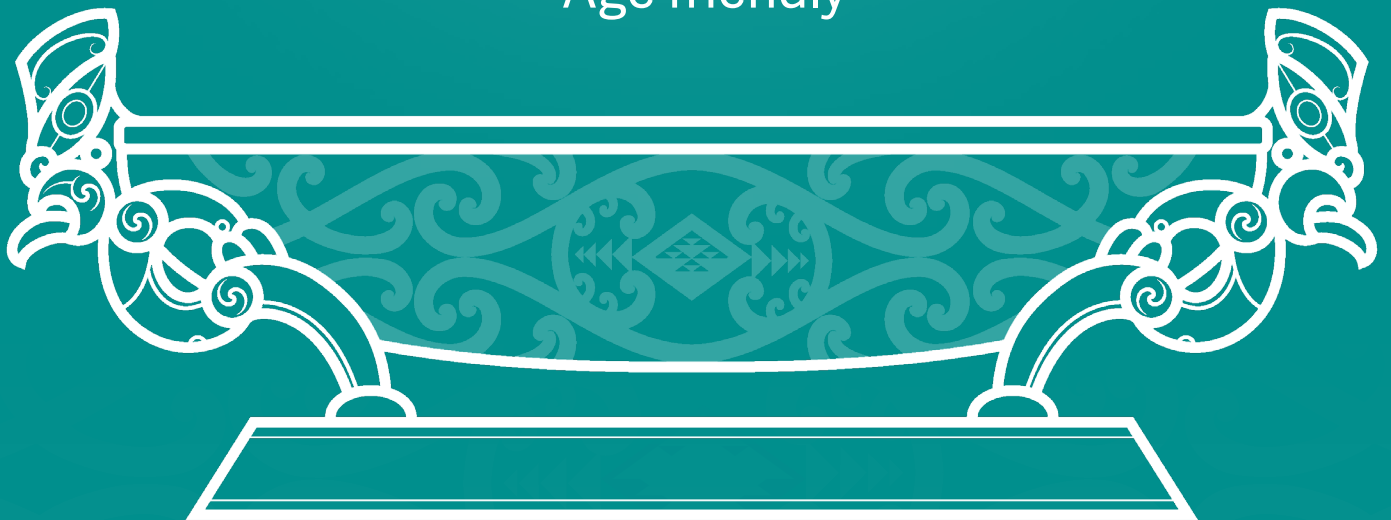
KAUMĀTUATANGA — AGE FRIENDLY

Science Stories





Kaumātuatanga
Age friendly



KAUMĀTUATANGA

Shared active transport for improved health

Every time I see an adult on a bicycle, I no longer despair for the future of the human race.

H. G. Wells

There's a mode shift required in Aotearoa. A switch from a transport system dominated by private cars to one dominated by public transport, shared transport, walking, and cycling. It's a matter of planetary health as well as public health. Nearly half of New Zealand adults are not doing enough exercise. Encouraging people to travel in an active way is a worthy campaign – it ensures that exercise is soundly integrated into people's daily routines, and we reap the benefits of getting cars off roads.

People who get to work using active transport such as walking, running, biking, scootering, and even catching public transport, have a lower risk of heart disease, cancer, and death compared with those who drive. That should be enough of an incentive to get us out of cars. But for many, especially older adults, the streets feel unsafe, there's a lack of suitable transport options, or there's a financial barrier. Transitioning to healthier transport needs to be safe, easy, fair, and affordable.

The Healthier Lives and Ageing Well National Science Challenges teamed up to explore how to get more people using active transport more of the time. ACTIVATION: Activating Change through Interventions for Active Travel in our

Neighbourhoods, is a research programme encompassing studies in Tāmaki Makaurau Auckland and Ōtautahi Christchurch.

Professor Karen Witten of Te Kunenga Ki Pūrehuroa Massey University is interested in how neighbourhood spaces can promote health. For almost 10 years she's been working with numerous collaborators to promote active transport in the suburb of Māngere in Tāmaki Makaurau.

A previous project, *Te Ara Mua Future Streets*, followed a community design process and implemented features such as wider footpaths, raised pedestrian crossings, interventions to slow traffic, cycle lanes, pedestrian access across carparks, and landscape features to reflect Māori presence.

These interventions resulted in safety benefits, such as slower traffic speeds and reduced traffic volumes in the retrofitted streets. Anecdotally, people appreciated the aesthetic improvements and re-indigenising of streetscapes, "it's like a little bit of love had come to Māngere". However, improvements in physical activity measures were less convincing.

Two years after the interventions, there was no significant increase in walkers and cyclists. Funding

from the National Science Challenges has enabled a longer-term survey to be completed (results pending) and analysis of an e-bike trial. What if access to bikes was part of the solution?

If there's one person who knows what a life-enhancing impact biking can have, it's Māngere's Teau Aitirau. After turning to biking to improve his own health, Teau founded Triple Teez – Time to Thrive to Stay Alive – a bike hub in Māngere that is supporting the community into healthy and sustainable modes of transport. Researchers from the ACTIVATION program teamed up with Triple Teez to deliver and analyse an e-bike trial.

Over nine months, 40 people got three months each of e-bike use. This resulted in 33% of people's trips being made by bike; trips made by car reduced by 25%. Participants found e-biking fun and appreciated the health and financial benefits. There is now a trial e-bike library being managed by Triple Teez.

Shared transport schemes are also showing promise in Ōtautahi where Professor Simon Kingham of Te Whare Wānanga o Waitaha University of Canterbury, and Drs Helen Fitt and Angela Curl of Te Whare Wānanga o Ōtākou University of Otago investigated the impact of shared transport initiatives in new housing developments. At the Arvida Park Lane retirement village, a fleet of 15 electric and hybrid vehicles were provided for residents. At the Ōtautahi Community Housing Trust's (ŌCHT) social housing development, two electric vehicles for hire and five electric bikes for free use were provided with support from Zilch and Lime respectively.

Surveys and interviews demonstrated that individuals benefitted. Shared transport made it easier for people to get to the supermarket; it enabled an injured person to get out and about when they were miserable from being housebound; it enabled someone to get their first job because they had means to travel to a workplace.

But what was perhaps more surprising, and showed very clearly in both trials, were the community and mental health benefits of shared transport schemes. In the social housing

development, the tenancy manager reported a decrease in conflict and tension because of a shared sense of community. At the retirement village, residents took on the role of showing others how to use the cars, conversations were initiated, joint trips were organised, and the atmosphere of the village improved.

This research suggests that the mental health benefits of shared transport schemes have been undervalued to date – there are substantial positive flow-on effects from living somewhere with a good sense of community not to mention the ability to access healthcare, employment, or recreational activities. The challenge now is to make shared transport scalable and affordable for providers. There will need to be champions across the board from Government agencies to transport providers to property managers to residents.

Karen feels that e-bikes are a bright light of potential, "We need to improve equitable access to transport as we transition to sustainable options – subsidised access to e-bikes will be an important part of that." There's also something alluring about an e-bike that makes people want to try them, and makes people feel capable of getting around independently. Any assumptions that e-bikes aren't suitable for older adults has been thrown out of the window – older Pacific women were one of the keenest groups to start biking in Māngere and ŌCHT's tenancy manager was impressed to see older people getting on bikes in their trial too.

Encouraging people to use active transport is not easy. Providing the infrastructure isn't enough. Providing vehicles such as e-bikes is essential for those who can't afford them. Providing *shared* vehicles may turn out to be the ultimate carrot: people are more likely to get involved when there are vibrant community activities or attractive cultures to be part of – like Triple Teez's community rides or Arvida's sight-seeing trips.

When the community-enhancing effects and mental health benefits of shared transport options are added to the environmental, financial, and physical health benefits of using active transport, we can see how H. G. Well's vision for the human race (and the planet) could be fulfilled. ■

Researchers:

- Professor Karen Witten
- Professor Simon Kingham
- Dr Hamish Mackie
- Professor Alistair Woodward
- Dr Angela Curl
- Dr Kimiora Raerino
- Dr Malakai O'fanoa
- Associate Professor Alex Macmillan
- Professor Melody Smith
- Rau Hoskins
- Dr Simon Opit
- Dr Adrian Field
- Bert van der Werf
- Dr Karen Banwell
- Dr Helen Fitt
- Associate Professor Kirsten Coppell
- Rebekah Thorne
- Dr James Berghan
- Dr Christina McKerchar
- Dr Lindsey Conrow
- Anna Coppens
- Cushla Dares
- Koen Faber
- Nicola Williams
- Els Russell
- Triple Teez - Time to Thrive
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- Auckland Transport (Nga Tiriti Ngāngahau)
- Ōtautahi Community Housing Trust
- Matapopore Charitable Trust
- Avida Park Retirement Village

Acknowledgements:

- All our participants

Sharing active transport promotes health


WHY?

Nearly half of New Zealand adults are not doing enough exercise. Using active transport daily ensures a lower risk of heart disease, cancer, and death compared with those who drive.

HOW?

Healthier Lives and Ageing Well National Science Challenges teamed up to explore how to get more people using active transport more of the time. The research program "ACTIVATION" included shared transport trials in Auckland and Christchurch.

WHAT?

An e-bike trial resulted in 33% of trips being made by bike; trips made by car reduced by 25%. Shared transport in a retirement village and social housing development led to community and mental health benefits in addition to individual benefits.

WHAT NEXT?

Shared transport schemes need to be made scalable and affordable to increase uptake and ensure equity. Champions are required across the board: from government agencies to transport providers, property managers, and residents.

KAUMĀTUATANGA

Kaumātua, kei te pēhea koutou?

E ngā maunga, e ngā awa, e ngā marae maha puta noa, nei rā te mihi o te kāhui rangahau e kōkiri ana i tēnei o ngā kaupapa e kiia nei ko te Tai Kaumātutanga, nō reira, tēnā anō koutou i roto i ngā tini āhuatanga o te wā, nau mai, haere mai.

From the mountains, the rivers, and the marae throughout the land, we as the collective of researchers advocate for this important kaupapa, Tai Kaumātutanga, on behalf of our Māori elders. Therefore, we greet you in many and varied ways – welcome to all.

This was the greeting offered to kaumātua throughout Aotearoa New Zealand as researchers embarked on an ambitious journey to find out how kaumātua are faring in this country. How are you kaumātua? What makes you happy? What makes you hopeful? What makes you feel safe? What gives you a sense of purpose? What are the barriers to your wellbeing? These are just a few of the questions asked in the biggest ever survey of older Māori undertaken in Aotearoa.

Colonisation did immeasurable harm to Māori health and wellbeing. We still see the effects today with the marked gap between Māori health and non-Māori health. And the gap is persistent: whenever there's an improvement in Māori health, there's an equivalent advance in non-Māori health. A starting point for closing the gap is to seek direct evidence from kaumātua themselves about how they are and what they need to thrive.

Tai Kaumātutanga Older Maori Wellbeing and Participation: Present and Future Focus is a study led by Dr Catherine Love (Te Atiawa, Taranaki, Ngāti Ruanui, Ngā Ruahinerangi) in collaboration with Charles Waldegrave and Monica Mercury from the Family Centre Social Policy Research Unit, Professor Chris Cunningham from Te Kunenga Ki

Pūrehuroa Massey University, and researchers at Ngā Pae o Te Māramatanga at the University of Auckland, Professor Linda Waimarie Nikora and Dr Teorongonui Josie Keelan. It seeks to inform health and social policies, planning, and provision of culturally responsive services for kaumātua.

The study grew out of work undertaken in Phase One of Ageing Well in which a new scale for measuring loneliness was developed. The scale was specifically designed with older Māori to include aspects of cultural importance for them. Most measurement scales used in Aotearoa are of Eurocentric design, based on an individualistic, secular culture. Māori culture is collective, genealogical, and spiritual so there are many aspects of Māori wellbeing that are simply not being measured in the current system.

As Charles explains, if the only evidence that policymakers and planners are using, is from Eurocentric measurement scales, then they're not seeing the full suite of opportunities and barriers for improving Māori wellbeing. And that makes it hard to close discrepancies. If Pākehā are lonely, the solution might be to enhance opportunities for social connection. If Māori are lonely, the answer might be quite different – such as enhancing



opportunities for participation in wairuatanga, connecting with local marae, or learning one's whakapapa and reo.

This insight – that to improve Māori wellbeing, issues need to be measured in culturally informative ways – led to the proposal for co-creating five further scales and applying them in a national survey.

To find out what questions needed asking and how, the researchers left their definitions and assumptions at the door and turned to the experts in the field – kaumātua. Hui were held with eight rōpū kaumātua, in urban and rural locations, across Aotearoa to discuss aspects of wellbeing. Kaumātua shared their experiences, and the researchers explored their responses in detail so that mutual understanding could be attained. Discussion and analysis of information was strongly informed by kaupapa Māori to ensure a decolonising approach throughout. Themes that came out of the hui led to development of scales (with associated questions) for measuring wellbeing, social connection, discrimination, abuse, and neighbourhood safety, in addition to loneliness.

These co-created, culturally specific scales were then put to the test in a survey. A nationally random sample of older Māori adults were

recruited using the Māori electoral role. Chris Cunningham (Ngāti Toa, Ngāti Raukawa, Te Ātiawa, Te Ātihaunui-a-Pāpārangī) describes how they had planned to do all the surveying kanohi ki te kanohi (face to face) in the traditional Māori way. But, with the arrival of COVID-19, they had to change their plans. Interviewees were given the option of an online survey, a phone interview, zoom interview, paper survey, or kanohi ki te kanohi. In the circumstances, respondents were thankful for being given options that respected their wellbeing and safety – over 60% completed the survey online.

Chris was appreciative of Ageing Well's flexibility with plan changes. "We also want to acknowledge that the approach Ageing Well has taken with the research community has been very unusual and very welcome. They encouraged ongoing dialogue with the researchers and were always interested in having fora to meet and discuss".

Monica Mercury (Te Iwi Morehu, Ngāti kahungunu ki Wairarapa, ki Te Wairoa, Ngāti Haina) was kaiwhakahaere – the main coordinator for the interviews. She spoke to hundreds of people, and was humbled and honoured by the experience, "I've heard entire life stories. It has often been heartbreaking hearing terribly sad stories about whānau going through many difficulties, mentally, emotionally, physically, and spiritually, making

do on very low incomes, people that could do better if they were given the right opportunities. I've had people saying, 'I've been brought up Pākehā so I don't feel I can contribute anything to your research'. Others were very kaha, strong in themselves about who they were. Others were just pleased to be invited, 'anything to help our people dear'. Whether life experiences were positive or negative, kaumātua appreciated the opportunity to participate and share them.

The researchers had hoped to get 1500 respondents, and they ended up getting over 2,000 people! Such an extensive random sample covering 65 questions will make for a database of unprecedented scale and detail. Its primary purpose is to be a rich resource on the state of kaumātua wellbeing, but it will also enable statistically significant testing and validation of the co-created measurement scales and calibration of the language used. Inclusion of the standard scales in the survey, as well as the culturally specific ones, has shown that there are a range of overlapping human responses relevant to everyone, but there are also Māori specific responses that are important to capture.

Charles is excited about the potential of this information, "The point of this database is that it's older Māori speaking about their lives from their worldview. We've never had a record like this. The whole thing was designed by Māori for Māori, and it will build a much greater understanding of how Māori view all these aspects of life. But also, it is intended to influence services and policies for the better."

The original plan was to have two waves of surveying two years apart to see what trends could be identified. The pandemic delayed the first survey so only one round has been carried out. However, the data are going to be synced with Tauranga Aotearoa Statistics New Zealand's Integrated Data Infrastructure (IDI) which will provide a longitudinal element to the information. It will also enable the researchers to calibrate their dataset and check how representative their sample of 2,000+ people is of the more than 200,000 older Māori in the country.

The IDI holds anonymous, confidential data

about New Zealanders that has been collected from various agencies to enable research into Aotearoa New Zealand society and economy at a population level. A wealth of demographic information on health, housing, education, employment, and income from the last ten years (timeframe of the IDI) will be available to explore in addition to the culturally specific information provided by the survey respondents.

So, how are our kaumātua? Analysis is still underway, but themes coming out of the survey point towards a loss of meaning and purpose resulting from a history of discrimination, urbanisation, racism, and poverty. Respondents lived through times when physical violence was used routinely in homes and schools so there are historical traumas that haven't resolved. Therapy offered by the community arm of The Family Centre was utilised as part of this work. It's been a tough ride for this generation. And yet there's ample evidence that kaumātua continue to play essential roles in many aspects of Māori life.

Another arm of *Tai Kaumātutanga* was a case study with kaumātua of Ngāti Whakaeu. The occurrence of COVID-19 provided an opportunity to give voice to kaumātua in a time of stress. Researchers from Ngā Pae o Te Māramatanga facilitated video recordings of kaumātua talking about their experiences of Aotearoa's first level four lockdown in March and April of 2020. The resounding message from this work was that, although kaumātua were considered especially vulnerable during the pandemic, they were in fact playing active roles in their communities and contributing tribal knowledge to help their people through a challenging time.

Perhaps the evidence gathered in *Tai Kaumātutanga* will provide the impetus required for closing the health discrepancies between Māori and Pākehā, but Monica is less worried about gaps, "My hopes and aspirations are that common sense policy prevails. If we can get some good, practical benefits for everybody, and our people in particular, it will make Aotearoa an even better place to live. We have so much to be grateful for. I just want our people to have better opportunities and improved wellbeing". ■



Researchers:

- Dr Catherine Love
- Professor Chris Cunningham
- Charles Waldegrave
- Dr Giang Nguyen
- Shamia Love-Shariff
- Wayne Makarini
- Mike Deacon
- Professor Linda Waimarie Nikora
- Dr Teorongonui Josie Keelan
- Professor Ngahuia Te Awekotuku
- Dr Kiri Edge
- Karen Okeroa McCrae
- Monica Mercury
- Dr Margaret Wilkie
- Dr Michele Morris
- Dr Andrea Knox
- Te Marae o Wainuiomata
(Te Upoko-o-te-Ika - Te Awakairangi)
- Te Marae o Kokiri
(Te Upoko-o-te-Ika - Te Awakairangi)
- Te Marae o Mangunu
(Te Upoko-o-te-Ika- Te Awakairangi)
- Te Putahitanga (Ngāi Tahu - Te Waipounamu)
- Ngāti Porou (Tairāwhiti)
- Ngāti Whakaue (Te Arawa)
- Māori Women's Welfare League
(Te Rau o Waitakere - Tamaki Mākaurau)
- Te Kura Kaupapa Māori o Ngā Mokopuna
(Te Whanganui-a-Tara)
- Taranaki Whanui (Te Ika-a-Maui)
- Kia Hapai te Rama Pariha o Te Haahi Ratana
(Manurewa, Tamaki Mākaurau ki te Tonga)

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Gauging the state of wellbeing for kaumātua



WHY?

The negative effects of colonisation are evident today in the persistent gap that exists between Māori health and non-Māori health. It is likely that many aspects of Māori wellbeing are not being measured in the Eurocentric health system, so policy makers are unable to effectively identify opportunities and barriers to improving Māori health.

HOW?

University and community-based researchers turned to kaumātua to find out what questions needed asking and how. Analysis of information was strongly informed by kaupapa Māori to ensure a decolonising approach throughout. Scales were developed for measuring wellbeing, social connection, discrimination, abuse, and neighbourhood safety, in addition to a previously developed loneliness scale. These co-created, culturally

specific scales were used in a national survey of 2,000 randomly selected kaumātua.

WHAT?

A database of unprecedented scale and detail was produced by Māori for Māori, to act as a rich resource on the state of kaumātua wellbeing. It's a record of older Māori speaking about their lives and what's important to them.

WHAT NEXT?

The data will be synced with Statistics New Zealand's Integrated Data Infrastructure to provide a longitudinal element to the information. The ultimate goal is for the database to be used to create culturally successful health and social policies, services and opportunities, that enable kaumātua to thrive.

KAUMĀTUATANGA

Frailty index identifies who needs help

I believe that if physical activity was a drug, it would be classed as a wonder drug, which is why I would encourage everyone to get up and be active.

Professor Dame Sue Bailey

Health can feel like a downwards spiral as we get older. Existing conditions can amplify or morph into new issues; increasing frailty can lead to falls or reduced activity; these factors may negatively impact quality of life and resilience which, in turn, cycles around into poorer health. But it doesn't have to be that way.

Geriatricians (doctors who work with older adults) are always looking for ways to improve the quality of life of their patients and to stall this cycle of poor health in advanced years. It is well known that frail people have a greater risk of developing poor health and are less able to bounce back from health setbacks, but how do geriatricians identify those who most need help?

Dr Katherine Bloomfield brings her clinical experience as a geriatrician into her research work. She knows that the earlier you intervene on the frailty trajectory, the better the result. It gets increasingly hard to intervene later. Katherine wanted to develop a frailty index and test whether it could predict adverse health outcomes. If successful, it could be used to help decide when to intervene and prevent deterioration.

A frailty index is a tool that measures frailty on a scale from fit to severely frail by assessing deficits across multiple domains. The researchers used physical traits and symptoms, health conditions, medications, cognitive, sensory, and communication abilities, as well as psychosocial, mood, and function domains to develop a new index. Katherine saw a unique opportunity to look at how frailty changes in people over time and what might be influencing any changes seen. By building on data collected in Phase One of Ageing Well, the researchers were not only able to develop a frailty index, but also validate it.

Over 500 residents of retirement villages had a health assessment done as part of the *Older People in Retirement Villages* study carried out in Phase One. Katherine considered the data ripe for developing a frailty tool because many frailty related attributes were measured by trained personnel. Use of the InterRAI Community Health Assessment tool makes the index relevant both nationally and internationally. From 57 items, participants were classed as fit, mildly frail, or moderately-severely frail.



Much can change in the space of a few years so, for Phase Two research, gerontology nurse specialists went back to the original participants, surveyed them, and did InterRAI assessments again. They found that 306 people had had acute hospitalisations, 64 had been admitted into long term care, and 51 had died. But could the frailty index help predict which groups of people were likely to suffer such outcomes? Statistical assessment showed that it did a good job.

Overall, the analysis showed that people with increased frailty are more likely to need hospitalisation, long-term care or die sooner than their fit counterparts. The moderate-severely frail group were almost four times more likely than the fit group to require acute hospitalisation and over five times more likely to enter long-term care or die in the 2-3-year timeframe of the study.

Having a validated frailty index that can be used to predict adverse outcomes like this means people who need help can be identified efficiently. As it stands, the tool is for population-level analysis but making it useable for clinicians to identify at-risk individuals would also be very helpful. The ultimate goal is to develop a program of intervention to assist frail people in maintaining their health.

The researchers also looked at quality of life and resilience in the context of frailty. Anecdotally, many medically frail people described feeling

strong and engaged. However, the data showed that the higher your frailty score, the lower your quality of life and psychological resilience. Therefore, finding ways to prevent or ameliorate frailty is an important public health challenge not only for avoiding ongoing medical complications that stem from frailty, but also for potentially improving quality of life for older adults.

Katherine hopes their work in retirement villages will highlight ways that village staff, and the industry more broadly, can play a proactive role in maintaining quality of life for residents. Research shows that after entry into retirement villages, especially those with onsite clinics, rates of hospitalisation reduce, and there are excellent opportunities for socialising and exercising.

Yet there are many unmet needs. Survey participant Patsy's experience is a good example. She had enjoyed living in a retirement village for over ten years. But, over time, the village expanded to such an extent that she was on the periphery of a large development and, when her vision and mobility became impaired, she felt like an outlier. She found it hard to get to centralised services and couldn't read the noticeboards, so ended up feeling very isolated.

Katherine is motivated to help people like Patsy lead fulfilling lives. When she was studying to be a doctor, Katherine would have laughed at the idea of becoming a geriatrician. During her

training, she worked with an amazing geriatrician and witnessed the focus on communication, listening, and improving function for older people. As a registrar, she also worked with inspiring geriatricians and realised what a collaborative and satisfying specialty it could be. "We all feel fulfilled in this field. Knowing that you are helping someone who may be dying is rewarding. We work to honour and facilitate things that are important for that person."

In the meantime, when it comes to staving off frailty, Katherine is keen for the exercise message to get through. Reducing physical activity as you age predisposes you to frailty. World Health Organisation guidelines illustrate that old age is not a reason to do less exercise, if anything, it's a reason to stay as active as possible. They recommend a minimum of 150–300 minutes of aerobic exercise and several muscle-strengthening activities weekly for all adults, with additional balance and strength training for older adults. Just because you're old, doesn't mean you

have to be frail, and the simple habit of regular physical activity may be the best way to avoid or slow the progression of frailty. ■

Researchers:

- Dr Katherine Bloomfield
- Dr Zhenqiang Wu
- Annie Tatton
- Cheryl Calvert
- Professor Martin Connolly
- Associate Professor Michal Boyd
- Dr Joanna Hikaka
- Dr Dale Bramley
- Associate Professor Hamish Jamieson
- Professor Ruth Hubbard
- Dr Nancye Peel

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- All our participants

Developing a Frailty Index

WHY?

Frail people have a greater risk of developing poor health and the sooner interventions are put in place, the better the result. But it can be challenging for geriatricians to identify who needs help and at what stage.

HOW?

The researchers used interRAI Community Health Assessments of 500 retirement village residents to analyse frailty at two intervals two years apart. Analysis showed that people with increased frailty are more likely to need hospitalisation, long-term care, or die sooner than their fit counterparts.

WHAT?

A validated frailty index was produced that can predict adverse outcomes and efficiently identify who needs support. It will help retirement villages play a proactive role in maintaining quality of life for residents.

WHAT NEXT?

The tool is currently for population-level analysis but making it useable for clinicians to identify at-risk individuals would be very beneficial.

KAUMĀTUATANGA

Measuring social frailty in Aotearoa



Nau te rourou, naku te rourou, ka ora te manuhiri.

With your food basket and my food basket, the people will thrive.



There's a new concept in health that's piquing the interest of researchers and older adults: social frailty. Broader than loneliness or social isolation, it's a concept that's showing promise for identifying older adults who may need social support to stall deterioration in their health.

As humans, we all have basic social needs like a sense of belonging and social cohesion, social support and connection networks, and experiences of healthy relationships. Fulfilment of these requirements feeds into our sense of wellbeing. Social frailty has been defined as "being at risk of losing, or having lost, the social resources, behaviours, activities, and self-management abilities that enable us to fulfil our basic social needs."

Being socially strong, resourceful, and active has benefits for mental health and spiritual wellbeing. But it also offers practical benefits for physical health: having people to walk with and support you, being checked on when you get sick, or being offered rides to the doctor. Becoming socially frail means your social resources for overcoming setbacks are depleted. This is similar to physical frailty in which your physiological resources for bouncing back are compromised.

For Dr Ruth Teh of Waipapa Taumata Rau University of Auckland, her interest was piqued when she was doing the SUPER study with older adults. That study focused primarily on physical frailty and used cooking and exercise classes to investigate whether improved nutrition and mobility could stall frailty. The resounding feedback from participants included how much they enjoyed the social interaction that came with participating in the classes. Ruth started seeing papers about social frailty in other countries, so she put forward an idea to Ageing Well to investigate it in Aotearoa New Zealand.

The relationship between social frailty and physical frailty is not well explored but it makes sense that they are risk factors for each other. Ruth could see that the more socially robust we are, the higher our intrinsic capacity. Intrinsic capacity is defined by the World Health Organization as, "the composite of all the physical and mental capacities that an individual can draw on at any point in time". It's like a natural reserve we use in times of trouble so it's especially important for healthy ageing.

Ruth views the relationship between intrinsic capacity and social frailty to be like a tennis player



on tour. “Intrinsic capacity is the suite of skills a tennis player possesses – strength and flexibility, focus and reflection, agility and endurance, working in harmony with the surroundings. A tennis player uses these skills to respond effectively to every ball and adapt to the changing ball placement and environment (wind, humidity, audience interaction). The player then recovers to a good position, ready for the next ball. This process is repeated over a sustained period. On court, a player is on their own, but they are supported by a network of trainers, specialists, family, and friends. When the suite of skills and resources fails to compensate, and falls below a threshold, the tennis player falls off their game – that’s the stage when clinical symptoms start to emerge.”

Ageing Well’s social frailty project is designed to help find out who is socially frail. It has been built from the ground up to be relevant to Aotearoa. A well-adopted framework from researchers in the Netherlands was used as a starting point from which to gather local knowledge. The research team, including Māori and Pacific experts, and representatives from Age Concern, engaged more than 40 older people in Tāmaki Makaurau Auckland and Tauranga to discuss social frailty and what it means for kiwis.

What is social frailty in Aotearoa? Do we have a problem? Feedback from these focus groups suggests it’s a subject very close to older adults’

hearts. They want to talk about this. Participants thanked the researchers for bringing up this topic; they appreciated the opportunity to discuss it and be part of the solutions. Of all the projects Ruth’s done in her life, she’s never received such an interested response from participants.

New Zealanders had insightful additions to make to the international framework: the multicultural element to social life in Aotearoa came through as a strong theme as well as a sense of belonging, and the importance of time spent in green space. Safety in the neighbourhood was highlighted as another important factor for engaging in the community.

Analysis of the focus group discussions led to development of a draft social frailty measurement scale. A further 200 people from diverse social backgrounds were interviewed using the scale to test it and collect further data. There are currently 30 different questions, but statistical analysis is underway to check the validity of questions and streamline the tool. Further funding will be needed to externally validate this version with a nationwide group of 600–700 people.

The aim of developing a social frailty measurement scale is to provide an effective method for health professionals to identify people whose social vulnerability may lead to adverse health outcomes. That way, timely extra support can be put in place. Individuals can boost their intrinsic capacity with their own behaviour and

activities drawing on resources. Proactively maintaining close relationships, participating in social events, volunteering, being part of neighbourhood or religious organisations all help to build social resources. However, varying life circumstances can mean that older adults need support for their social needs.

Ruth is hopeful that solutions can be carried out in the community. “Not all interventions need to take place inside hospital walls. Human beings are adaptable – with appropriate resource and support, communities can tailor locally relevant interventions.” Age Concern, for example, provides social connection services for older people who would like extra company or activities.

Ruth is pleased with the diversity of voices they’ve gathered in this study in a short timeframe. This is another way New Zealand will contribute to international research, “Not only have we added a cultural perspective, but we’ve also developed the scale with older people themselves. Other countries could adapt this approach to discover their own local perspectives on healthy ageing.”

She urges that every age group needs support, “We must not forget older adults and all the good things they have done and are still doing”. As the whakataukī reminds us, sharing resources and knowledge across the generations ensures all people thrive. Strength from youth, and wisdom from older adulthood, make a thriving society, so it’s only sensible that older adults are supported to age well socially and physically. ■

Researchers:

- Dr Ruth Teh
- Associate Professor Marcus Henning
- Dr Anna Rolleston
- Associate Professor Matire Harwood
- Professor El-Shadan (Dan) Tautolo
- Karen Campbell

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- All our participants
- Age Concern New Zealand
- Age Concern Auckland and Tauranga

Identifying socially frail people

WHY?

Social frailty is defined as being at risk of losing the resources that enable individuals to fulfil basic social needs. It’s a concept that’s showing promise for identifying people who may need social support to stall deterioration in their health.

HOW?

A well-adopted framework from the Netherlands was used as a starting point. The researchers engaged more than 40 older people to gather locally relevant information about social frailty.

WHAT?

A draft social frailty measurement scale was developed. A further 200 people from diverse social backgrounds were interviewed using the scale to test it and collect further data.

WHAT NEXT?

Further funding is needed to externally validate the scale with a nationwide survey of 600–700 people. It can then become an effective way for health professionals to identify people whose social vulnerability may lead to adverse health outcomes if they’re not given extra support.

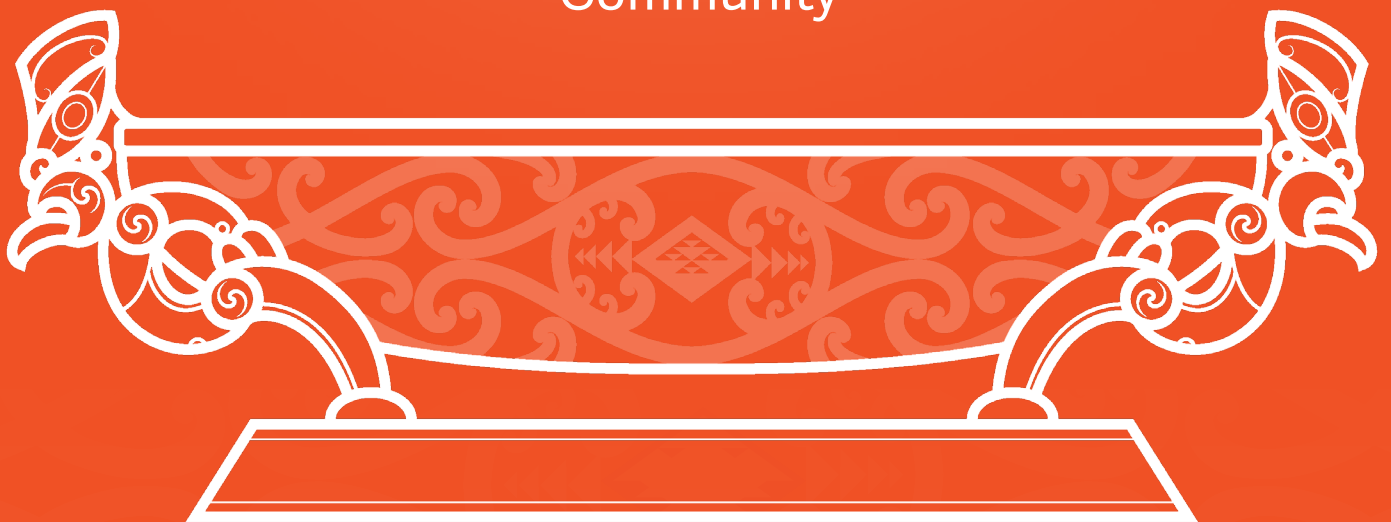
HĀPORI — COMMUNITY

Science Stories





Hāpori
Community



HĀPORI

Kaupapa Māori exercise programme engages kaumātua

Takata ako ana i te kāika, te turaka ki te marae, tau ana.

A person nurtured in the community contributes strongly to society.

“Being committed and connected to your community is crucial.” Principal Investigator Katrina Pōtiki Bryant explains about kaupapa Māori research, “Our participants are our rōpū kaiārahi or advisory group. They guide the research. They determine what we do with the results.” Māori researchers are driven to implement research into practice so that participants benefit. “We take on that responsibility and we maintain relationships beyond the life of any single project.” This approach may not be a quick path to getting papers published, but it is an effective way of making lasting positive change in the community.

Taurite Tū is the perfect example of kaupapa Māori research – a program born out of a rūnaka, that has stayed with the rūnaka and is now benefitting Māori all over Aotearoa New Zealand. The idea was sparked at the 100th anniversary celebrations for the School of Physiotherapy in Dunedin, when upoko of Te Rūnaka o Ōtākou, Edward Ellison, asked what was being done to prevent falls for kaumātua. For Katrina, a long-time physiotherapist and rūnaka member, the seed was sown, and she went on to seek the right people and funding to explore Māori-centric solutions.

Aotearoa New Zealand already has some excellent exercise programs that help prevent falls for older adults – the Otago Exercise Program and the

community-run version Steady As You Go (SAYGo). However, participation rates for Māori are very low. The Accident Compensation Corporation (ACC) was also aware of very low rates of Māori engagement in their injury prevention and rehabilitation programs so they were interested in improving outcomes for Māori.

Katrina knew she didn’t need to reinvent the wheel. She is passionate about using traditional Māori forms of movement to engage kaumātua. Poi and taiaha, for example, were originally used to rehabilitate wrists and shoulders after battle. Mau rākau and tī rākau are forms of movement that resonate with many Māori, so Katrina worked with experts in these activities to design exercises for improving strength, balance, and speed – crucial skills for reducing falls.

Woven into the exercise program are components of tikaka Māori, mātauraka, and te reo. Weekly sessions open with a karakia and, after an hour of physical mahi, there’s kai and kōrero. This provides opportunities for whakawhanaukataka and discussion of wide-ranging health topics with specialists visiting to answer questions. The reach of the program is thus extended from pure exercise to all elements of health. In Te Ao Māori, health isn’t about what you can’t do, it’s about what you can do. Hence, Katrina explains, “we don’t have a falls prevention program, we have



Taurite Tū kaimahi enjoying a moment.

a strength and balance program". The program is named "Taurite Tū" with "taurite" meaning "the balance of things" and "tū" meaning "to stand".

Blending tikaka with health research and exercise comes naturally to Katrina Pōtiki Bryant (Waitaha, Kāti Mamoe, Kāi Tahu). She was born and bred in Ōtepoti Dunedin and has close whakapapa links to Ōtākou on the outer reaches of Otago Peninsula. Her mother and grandmothers were nurses so she thought she would become one too. At age 12 she represented New Zealand in springboard diving so when her mother suggested she become a physiotherapist, that made sense. Katrina loves her work. As Associate Dean Māori at the University of Otago's School of Physiotherapy, she enjoys showing young Māori physiotherapists what a difference you can make. In her work for Te Rūnaka o Ōtākou, where *Taurite Tū* is hosted, she has witnessed lives improving. Rewarding comments are numerous but one that stays in her head is, "This is the first time in my life I've enjoyed exercise and I'm 69."

But you can't work alone. Katrina is grateful for the generous amount of expertise that has flowed into the program. Age Concern's developer of SAYGo, Margaret Dando, shared invaluable insights for creating a community-based falls prevention program. And she credits Moana Wesley for being the pou manawa of the *Taurite Tū* kaupapa – keeping it grounded in Te Ao Māori and at Ōtākou.

With funding from the Health Research Council, ACC, and Ageing Well, *Taurite Tū* was trialled with an 18-month pilot at three rohe in Otago and nine months at an additional six rohe in Southland

and the North Island. Using standard physical tests such as "sit to stand", "one legged stand" and "timed up and go" before and after the trials, the effectiveness of *Taurite Tū* for reducing the risk of falls was assessed. Participants showed statistically significant improvements in all three categories. Overall attendance of 79% and retention rate of 86% were impressive given some of the pilots overlapped with COVID-19 lockdowns.

It's clear that *Taurite Tū* is popular with pakeke and kaumātua. And it's doing their physical health a lot of good – rates of falls, injuries, and the need for treatment have all reduced. But it's more than that. Interviews with attendees indicate that the use of tikaka Māori is benefiting their health holistically – by providing culturally safe places for kaumātua to be kaumātua, reconnecting them with aspects of their cultural identity, and facilitating meaningful social interactions. As one participant observed, "I like the venue of Taurite Tū at the marae, for me it's a spiritual feeling. There's a feeling this doesn't belong to an organisation, it belongs to all of us." Even the kaimahi are benefitting. And that's another idea behind kaupapa Māori – that everybody involved will experience beneficial change.

The beneficial change is far-reaching. *Taurite Tū* Ltd is now a charitable company under the umbrella of Te Rūnaka o Ōtākou, facilitating implementation around the motu. While the intellectual property remains at Ōtākou, each location can adapt delivery to meet the needs of individual rohe. There are now 22 rūnaka and Māori health providers with trained kaimahi

delivering *Taurite Tū* to over 450 kaumātua. Funding has been approved for further in-person locations and there are weekly online classes too. Katrina is thrilled that the kaupapa is working, and she's humbled by the uptake around Aotearoa.

Researchers:

- Katrina Pötiki Bryant
- Moana Wesley
- Nadine Young
- Karina Davis-Marsden
- Tammi Topi
- Kylie Aitken
- Awhina Akurangi
- Naadia Te Moananui
- Luke Bradley
- Moana Wakefield
- Tarah Ah Kiau
- Maria Russell
- Mel Haerewa
- Te Iringa Davies
- Mata Cherrington
- Penny Nicholas
- Dr Shirley Keown
- Tracy Wright-Tawha
- Professor Debra Waters
- Professor Leigh Hale
- Associate Professor Bridget Robson
- Associate Professor Emma Wyeth
- Donna Keen
- Dr Lara Vliestra

Through *Taurite Tū*, kaumātua are being nurtured in the community and, as the whakataukī implies, these healthy, injury-free people are now better able to contribute actively to society. ■

Acknowledgements:

- All our participants, instructors, and advisors

Taking a kaupapa Māori approach to exercise

WHY?

Existing injury prevention and rehabilitation programs have low uptake by Māori. A kaupapa Māori approach is more likely to succeed in engaging kaumātua in regular exercise to improve strength and balance.

HOW?

Māori physiotherapists worked with experts in traditional forms of movement to design exercises that resonate with Māori and build skills for reducing falls. Components of tikaka, mātauraka, and te reo were incorporated into the program to address Te Ao Māori's holistic approach to health.

WHAT?

Taurite Tū was trialled and found to produce statistically significant improvements in physical tests, reduced rates of falls, injuries, and the need for treatment. High attendance rates and positive feedback demonstrated the program was popular with Māori.

WHAT NEXT?

There are now 22 rūnaka and Māori health providers delivering *Taurite Tū*. Further locations are planned so that kaumātua around Aotearoa can benefit from this kaupapa.

HĀPORI**The Lifecourse Project**

Titiro whakamuri, haere whakamua.

Look to the past, move forward to the future.

Lifecourse research considers that every stage of life has potential for influencing later stages and thereby provides opportunities to improve outcomes later in life. Aotearoa New Zealand has a track record of conducting world-leading longitudinal research – we have the long-running *Dunedin Study*, *Christchurch Health and Development Study*, *Growing up in New Zealand Study*, *Pacific Islands Families Study*, and *Te Hoe Nuku Roa: A Measure of Māori Cultural Identity*. However, there have been few lifecourse studies focused on specific health challenges and taking an intergenerational, whole-of-family approach.

Three National Science Challenges – A Better Start, Healthier Lives and Ageing Well – came together to fund four strands of work that look beyond specific life stages of individuals to embrace holistic, whānau-centred investigations. Associate Professor Barry Milne, Director of the COMPASS group at the University of Auckland, led the team and a project on the impact of chronic conditions on family members across the lifecourse. Dr Ofa Dewes of the Tongan Health Society led a project entitled “Intergenerational, integrative, and intellectual Pacific properties and pathways for life” (IPforLife). Dr Mihi Ratima was the principal investigator for a research collaboration between Te Pou Tiringa and the National Centre for Lifecourse Research at the University of Otago,

that documented a Māori community engaged approach to lifecourse and intergenerational research. Professor Tahu Kukutai of Te Whare Wānanga o Waikato University of Waikato led *E Kore Au e Ngaro: a whakapapa approach to intergenerational research*.

Recognising that chronic health conditions impact not only the individual with the illness but also their family members, stimulated the first strand of work. Barry Milne specialises in analysing data to highlight trends in health across the lifespan. In a secure data lab, under strict conditions, he was able to look at relevant data from Statistics New Zealand’s Integrated Data Infrastructure database. The data comprises anonymous information collected by the government for administrative purposes – there is no way of identifying individuals, but it is useful for looking at patterns among groups of people. Selected stages of the lifespan – children, partners, older adults – were chosen to look more closely at the toll chronic illness takes.

Data analysis identified that 60% of families have someone with a chronic condition. This high proportion of kiwi families impacted by chronic conditions, highlights the need to take a broader approach to providing support. Yes, the individual with the illness needs health system support, but

family carers may also need support in the form of health or social services. One in every fourteen young people (aged 15–24) cares for someone with an illness or disability in Aotearoa. And caregiver prevalence is highest among women, Māori, Pacific peoples, and those living in poor areas. Detrimental impacts for carers on future education and employment were not too pronounced but health impacts were notable. Barry believes there's more work to be done in producing quantitative estimates of the broader burden of disease, but already there's a mindset change required. We shouldn't be solely addressing individuals' problems – chronic illness is a wider family issue.

Bringing a Pacific emphasis to the impacts of chronic disease in families, Dr Ofa Dewes conducted research focussing on Tokelau, a realm nation of New Zealand, and its communities. Specific data about small populations is often missing from the information that guides policy and practice. There are only 8,700 Tokelauans out of the 382,000 Pacific people in New Zealand, so their health statistics are easily lost in the noise. However, Tokelau has the highest rates of diabetes in the world. Urgent work is needed to improve this statistic. The IPforLife project aimed to understand what Tokelauans would consider to be useful engagement with lifecourse research for the purpose of improving their health outcomes. It also assessed the strengths that allow Tokelauan families to thrive despite chronic disease.

The collaboration led by Mihi Ratima documented a Māori lifecourse framework that can be applied in longitudinal research. Māori-led longitudinal studies have the potential to bring about transformational change for whānau and communities by informing efforts to rectify the extensive health and social inequities faced by Māori. The framework is used as part of *Te Kura Mai i Tawhiti* – a lifecourse and longitudinal research programme supported by the Health Research Council and the Ministry for Business, Innovation and Employment. The research is being undertaken collaboratively by Te Pou Tiringa and the National Centre for Lifecourse Research at the University of Otago. Te Pou Tiringa

is a community-based Māori organisation in Taranaki with oversight of early years provision and research. This includes oversight of Te Kōpae Piripono, a Māori immersion early childhood education centre. From its establishment in 1994, the philosophy behind Te Kōpae Piripono has been that a strong Taranaki Māori identity provides the foundation for positive health, education, and other outcomes for tamariki and their whānau across the lifecourse. Operating at the interface between Western science and mātauranga Māori, the research is set to reveal just how effective locally relevant kaupapa Māori early childhood and whānau programming can be, and how similar strategies could be used elsewhere.

The fourth strand, *E Kore Au e Ngaro*, delved into the significance of whakapapa for intergenerational wellbeing. The project was built on prior research by Tahu Kukutai's hapū, Ngāti Tiipa, in which they developed a database of over 800 of their tūpuna as the first step in creating their own hapū-controlled data repository. Wānanga and interviews were conducted with Ngāti Tiipa whānau to explore how whakapapa data and whakapapa-based research could support the wellbeing of their whānau, communities and whenua. The project also explored whānau perspectives on how Ngāti Tiipa tikanga and kawa (customary protocols) could be applied to inform the protection and use of whakapapa data by current and future generations. Consideration was given to data types, classification, metadata, and technology solutions.

These four intertwined objectives show how there is strength to be gained from looking to our past for the purpose of thriving into our futures. There are many factors over the lifespan that contribute to ageing well – from recognising and working to alleviate the burden of disease that falls on families and carers, especially for ethnic minorities, to drawing on whakapapa for wellbeing, and making sure children get the best culturally enriching starts in life. ■

Researchers:

- Associate Professor Barry Milne
- Andrew Sporle
- Dr Ofa Dewes
- Dr Mihi Ratima
- Professor Tahu Kukutai
- Dr Lisa Underwood
- Dr Nick Bowden
- Dr Andrea Teng
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- Dr Jack Lam
- Dr Yanshu Huang
- Dr Lukas Marek
- Reverend Tui Sopoanga
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- Dr Iuta Tinielu,
- Alefosio Tufala
- Reverend Iutana Tinielu
- Foai Foai
- Reverend Suamalie Naisali
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- Dr Aroaro Tamati
- Dr Erana Hond-Flavell
- Dr Will Edwards
- Dr Ruakere Hond
- Professor Reremoana Theodore
- Professor Gareth Treharne
- Professor Richie Poulton
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Investigating intergenerational aspects of health

WHY?

Lifecourse research considers that every stage of life has potential for influencing later stages. But there have been few lifecourse studies that take an intergenerational, whole-of-family approach.

HOW?

Three National Science Challenges came together to fund four strands of work that look beyond specific life stages of individuals.

WHAT?

Statistical analysis of chronic health conditions highlighted the burden of

disease that falls on 60% of families in New Zealand. Chronic disease and the potential of lifecourse research was investigated with Tokelauan Communities. A Māori lifecourse framework was developed and used in a study into the effectiveness of locally relevant kaupapa Māori early childhood and whānau programming. The final strand of work explored the significance of whakapapa for intergenerational wellbeing.

WHAT NEXT?

Greater recognition of the multiple factors over a lifespan that contribute to ageing well, will improve outcomes for older adults and their families.

HĀPORI**Communities hold the key to injury prevention**

Kotahi te aho ka whati, ki te kāpuia e kore e whati.

One strand is easy to break, but many strands together will stand strong.

There's no perfect formula for preventing an individual from sustaining an injury. But the people around that individual – whānau and community – can play important roles in reducing the risk of injuries and promoting recovery. Pā harakeke (flax plantations), where different types of flax are grown for different purposes, and all are nurtured to thrive, act as a metaphor for whānau and communities being a source of strength in te ao Māori. *Whaioranga te Pā Harakeke* – the name of this project – symbolises coming together from different perspectives in pursuit of wellbeing.

This project was born in response to the Accident Compensation Corporation's (ACC) funding call for ideas on how to improve access for older Māori to their injury prevention and recovery programs. It is built on the central role that paeārahi (Whānau Ora navigators) play in whānau wellbeing. ACC were aware that non-Māori had better access to their services than Māori and that kaupapa Māori health providers were needed to overcome this discrepancy.

Te Arawa Whānau Ora Collective is a kaupapa Māori health support service based in Rotorua whose vision is to have thriving whānau in the Te Arawa region. Some providers in the collective had previously worked with researchers at Waipapa

Taumata Rau University of Auckland, so they teamed up to answer the call.

Joanna Hikaka (Ngāruahine) took on the Principal Investigator role for *Whaioranga te Pā Harakeke* to facilitate iwi-driven injury prevention and care for older Māori. Ageing Well came on board to support the project and Joanna really appreciated their proactive interest and involvement. Joanna started working with older Māori during her 20 years as a pharmacist in hospitals and aged residential care – she enjoyed the diversity, complexity, and stories that come with kaumātuaatanga. More recently, she joined the world of research and completed a PhD on equitable use and access to medicines for older Māori.

Using data from the Ministry of Health and ACC for the Lakes and Bay of Plenty District Health Board areas, the researchers started by investigating the types of incidents that had led to injuries and hospitalisations. They found that falls cause a significant proportion of injury-related hospitalisations for older Māori. It was also clear that inequities exist in accessing injury compensation for older Māori with the rate of ACC claims being 46% higher for non-Māori than for Māori.

The researchers conducted interviews and focus groups with koeke (older Māori), whānau, and community health service providers to explore older Māori experiences of accessing injury-related care. It was found that care is difficult to access and navigate for older Māori, it doesn't often meet their multi-dimensional wellbeing needs, and the important role of whānau is often unrecognised and unsupported.

Māori service providers and koeke themselves were clear about what was needed to enhance injury prevention and recovery initiatives: a holistic approach that responds to mental health and social needs as well as physical needs; culturally safe practices; advocacy for navigating the health system and ACC services; and recognition of the caring role of whānau. Paeārahi were well-suited to respond – although Te Arawa Whānau Ora had a paeārahi model in place to help with other aspects of wellbeing, they hadn't worked specifically in injury prevention and recovery before.

Paeārahi were recruited from the community and trained for two purposes: to work with whānau and to carry out research to assess the effectiveness of the interventions. Although not clinically qualified, paeārahi were trained to do health assessments, home safety assessments, to recognise injuries in older Māori, and to know how to access ACC services or refer to health professionals for further advice. In addition, they were trained in research processes and carrying out assessment questionnaires. This training is currently under review for NZQA accreditation.

Using a collaborative approach centred on Te Arawa cultural practices, trial interventions were run for 12 weeks. Paeārahi met with koeke and their whānau to establish connections, set goals around wellbeing, and work together to access prevention and care services. Interviews and assessments were done before and after the interventions with 132 koeke.

Standard outcome measures look at whether symptoms have improved. Māori understanding of health suggests that's not enough of a picture.

Hua Oranga – an outcome measure developed by Professor Te Kani Kingi and Sir Mason Durie – uses a wider lens to assess the success of interventions. This measure is based on Te Whare Tapa Whā, the model of wellbeing designed by Sir Durie, so it includes consideration of hinengaro (mind), tinana (body), wairua (spirit), and whānau (family and social connections).

Improved wellbeing for koeke was recorded across all four aspects of Te Whare Tapa Whā after participation in this project. There was also greater confidence around accessing injury care for a proportion of koeke. No change in hospitalisation rates were observed but this is interpreted as a positive outcome given the number of comorbidities among the koeke involved in the study. Koeke were enthusiastic about working with paeārahi. "We need someone who's just gently reminding us, someone who walks alongside us in our māuiui and with our illness and just tautoko, you know". Paeārahi also found the process rewarding – encouraging and supporting koeke to seek what they need to reach their full potential in life.

By taking a holistic approach, based on Māori cultural values, the researchers have witnessed real improvements not only in injury prevention and recovery but also in overall wellbeing. Te Arawa have a strong history in navigation, and it seems that modern day Whānau Ora navigators are an effective way to improve lives and livelihoods for older Māori.

The COVID-19 pandemic was occurring through much of this time, and even though Māori service providers were busy responding – setting up local testing, vaccination, and isolation facilities – they still maintained this research as a high priority. This highlights the strength to be found when local providers work with local communities to develop local solutions that work. Joanna would love to see paeārahi funded long term and in other regions, with local adaptation of the role – many strands make for strong communities. ■

Researchers:

- Dr Joanna Hikaka
- Louise Ihimaera
- Kirsty Crawford-Maxwell
- Brooke Aramoana-Arlidge
- Parehuia Merito
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- Professor Ngaire Kerse
- Professor Bridget Kool
- Associate Professor John Parsons
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- Dr Jules Dalley

Preventing injuries for Māori in the community

WHY?

The Accident Compensation Corporation's injury prevention and recovery programs are accessed by non-Māori at much higher rates than Māori. Kaupapa Māori health providers can likely help to overcome this discrepancy.

HOW?

University researchers and health providers from Te Arawa Whānau Ora Collective collaborated to ascertain from other Māori health providers and older Māori themselves what was needed to enhance engagement. Paeārahi (health navigators) were identified as being well placed to provide culturally appropriate advocacy for older Māori navigating the health system.

WHAT?

Trials were run with community-recruited paeārahi working with whānau to progress towards agreed wellbeing goals. Assessments demonstrated improved wellbeing across all four aspects of Te Whare Tapa Whā after participation in these trials.

WHAT NEXT?

Longer term funding is required to retain paeārahi as key facilitators for improving Māori injury and recovery rates and enable expansion into other regions.

HĀPORI**Māori wellbeing: A web of connections**

Mā mua ka kite a muri; mā muri ka ora a mua.

*Those who lead give sight to those who follow;
those who follow give life to those who lead.*

Te whare pūngāwerewere, the spider's web, is a striking display of the strength, flexibility, and resilience achieved through crafting a multitude of connections. So too can a person be strengthened by building numerous connections around them – relationships with family, friends, and community. Recent research has found that te whare pūngāwerewere is a useful model for describing and understanding the connectivity of kaumātua with their whenua, whānau, hapū, and iwi, and the impact these relationships have on their health and wellbeing.

When Associate Professor Marama Muru-Lanning of Waipapa Taumata Rau University of Auckland proposed research for Phase One of Ageing Well, she wanted to explore the feasibility of engaging with kaumātua on aspects of health, wellbeing, and ageing. Negative health statistics for older Māori seemed to be at odds with the generally positive approach Māori take to growing old. Through kōrero with kaumātua in Te Tai Tokerau, it became clear that focussing on individual physical health did not resonate with them – wellbeing was much broader than physical health alone.

To further explore the meaning of wellbeing for kaumātua, and how communities and health

services might better support healthy ageing for Māori, Marama, and colleagues at the James Henare Māori Research Centre, obtained an Emergent Opportunities grant in Phase Two of Ageing Well.

Kaumātua from three rohe, Patuharakeke, Ngātiwai, and Te Hiku o te Ika, participated in, and helped develop, the research. Using their tried and tested kaupapa Māori engagement practices, the research team organised noho wānanga at local hotels. Taking discussions away from the marae meant kaumātua were relieved of hosting duties and could focus on the research. Senior Research Fellow, Dr Hilary Lapsley said of the meetings, "Kaumātua are extending how we think about health. They let us into their world, and they talked about what's important to them."

Wisdom and experience shared by kaumātua brought to light an intricate web of connections between hinengaro (mental health), tinana (physical health), wairua (spiritual health), and te taiao (the environment). Sustaining wellbeing is obviously a holistic endeavour for older Māori. And the support structures upholding wellbeing centre firmly on kaumātua, that is, what it means to be a kaumātua.



Kaumātuatanga acting as pou (posts) on which wellbeing rests is one of the key insights of this research. In kōrero with older Māori, it became clear how filling the role of kaumātua provides the elements for a healthy life – linking to their ancestors, helping the younger generation, enjoying strong social connections, upholding tikanga on the marae, feeling a sense of purpose, strengthening ties with the whenua, and earning status among whānau, hapū, and iwi.

Kaumātua also provide support for each other. There was a strong sense of rangatiratanga around health – that they were responsible for their own body. So, while elders definitely wanted to be cared for by whānau, they were hesitant about loading their children with that responsibility, and often turned to peers for support instead.

If the interconnectedness that comes with fulfilling the role of kaumātua is well illustrated by the many strands of te whare pūngāwerewere, the spider's web, then grief or disconnection are the gaps or tears that can occur in a web. Kaumātua

spoke of sadness over the loss of things they could do in childhood – like collecting healthy pipi for kai. There was also grief at deaths amongst their peers and the difficulty of upholding tikanga when there were few kaumātua around the marae. Such challenges were acknowledged as making a dent in wellbeing. But spider webs can be repaired.

Overall, a focus on bigger picture values by kaumātua, and feeling joy and aroha for their mokopuna, explains how their wellbeing can be abundant even when physical health and material resources are low.

This project enabled viewpoints of kaumātua to be heard so that the factors they value for enhancing wellbeing, and the issues that threaten it, can be understood. These findings provide a stronger basis for guiding solutions and better health policies and practices – not only for these kaumātua but also for those around the motu.

There's a mānuka broom at Te Whare Rangahau o Hemi Henare, the James Henare Research Centre, that was gifted to the centre by Whaea

Ngapere Hopa – one of their kuia advisors. Co-director Marama Muru-Lanning (Waikato, Ngāti Maniapoto, Ngāti Whātua) explains that the broom is a reminder for them not to sweep away cobwebs from the corners of the rooms. Cobwebs were used by Māori as sticking plasters to help wounds heal – so they are literally medicinal as well as providing an excellent metaphor for the network of relationships that build good health.

Relationships with kaumātua continue for Marama, Hilary, and the research team – just because a project is over, doesn't mean the relationships are. As a flagship research hub for the University of Auckland, the James Henare Māori Research Centre promotes kaupapa Māori focused on the social, cultural, and economic wellbeing of Tai Tokerau people. Researchers, kaumātua and community health providers continue to work together to find solutions for pressing needs. Having well-established relationships also means new investigations can be undertaken at short notice. During COVID-19 lockdowns for example, the researchers engaged with kaumātua to explore how their communities were coping and to feed information back to health providers and policy makers. Already, several studies have been funded by the Health Research Council stemming from the mahi for Ageing Well.

Future initiatives need to come from the perspective of kaumātuatanga as the pou for wellbeing. Taking on leadership duties as they become kaumātua gives older Māori a heightened sense of wellbeing regardless of their physical health status. Therefore, it's important to acknowledge this societal structure and include kaumātua in the development of healthcare models. Ideally, healthcare services would involve older people giving as well as receiving care; enabling them to fulfil their leadership roles as well as accept support in a mutual and equitable manner. As the opening whakataukī expresses, by being leaders for the younger generation, kaumātua not only show them the way, but also receive energy that enhances their own lives. ■

Researchers:

- Associate Professor Marama Muru-Lanning
- Dr Tia Dawes
- Dr Hilary Lapsley
- Dr Keri Mills
- Dr Mere Kepa
- Dr Gerard O'Regan
- Dr Ngahuia Harrison
- Jeremy Hema
- Charmane Tukiri
- Cilla Moore
- Lianne Penney
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- Rhieve Grey
- Moana Oh
- Nicholas Jones

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Interconnected wellbeing for kaumātua



WHY?

Previous work indicated that the mainstream approach of focussing on an individual's physical health does not resonate with kaumātua – they have a broader, holistic approach to wellbeing. So how can health policies and practices better support healthy ageing for Māori?

HOW?

Kaumātua helped develop the research through noho wānanga with the researchers. Discussions explored the connectivity of mental, physical, and spiritual health with whānau connections and the environment.

WHAT?

The research highlighted that kaumātuatanga – what it means to be a kaumātua – is the foundation on which wellbeing rests for older Māori. Being enabled to fulfil the kaumātua role provides the essential elements for healthy lives.

WHAT NEXT?

Healthcare services would benefit Māori if they involved older people in giving as well as receiving care; enabling them to fulfil their leadership roles as well as accept support in a mutual and equitable manner.

HĀPORI**Kaumātua Mana Motuhake Pōi**

As carriers of culture, anchors for families, models for lifestyle, bridges to the future, guardians of heritage and role models for younger generations, ... contributions [of older Māori] stand to enrich the quality of life for the whānau as a whole.

Sir Mason Durie

Health and wellbeing for Māori extends far beyond the physical body, and includes relationships with family and community, a sense of belonging, identity, purpose, mental and emotional states, spiritual elements, and connection to the land and natural environment. The British colonisation of Aotearoa New Zealand led to rapid and extensive loss of land, resources, sovereignty, and aspects of cultural identity for Māori. The negative effects of such disruption to the foundations of Indigenous health and wellbeing have been profound and long-lasting.

New Zealand's current health system is designed from, and dominated by, a Western worldview which does little to acknowledge or rectify the health consequences of colonisation. Today's generation of kaumātua grew up at a time when the New Zealand Government actively discouraged Māori children from being Māori – they were punished for speaking Te Reo Māori at school, often labelled as “retarded” in their learning, and taught to accept the English language and Pākehā culture as superior. Understanding these actions as assaults on the

core of identity, it's no wonder that Māori life expectancy and health expectancy is lower than that of Pākehā.

Professor Brendan Hokowhitu from Ngāti Pūkenga University of Queensland co-leads Ageing Well's *Kaumātua Mana Motuhake Pōi* program in which the central thesis is that cultural revitalisation will improve wellbeing for Māori. And given that colonisation has depleted sovereignty in the lives of Māori, then mana motuhake provides an important pathway back to health. By fostering both an individual and collective sense of self-determination and autonomy, kaumātua can achieve long, high-quality lives.

Co-leader Professor John Oetzel from Te Whare Wānanga o Waikato / University of Waikato explains that, unlike the deficit approach commonly used in modern healthcare, with its focus on fixing problems, this program worked from a strengths-based philosophy. The researchers acknowledged that there's a rich resource already out there in families and communities. Every person has something to offer in the form of time, knowledge, or action, so by



Researcher Associate Professor Mary Simpson records the mātauranga and experiences of participants at a Kaumātua Mana Motuhake Pōi hui.

bringing people together and building relationships, everyone is strengthened, and people are empowered to solve their own problems.

As part of this philosophy, the research was thoroughly kaupapa kaumātua. Co-leader Rangimahora Reddy (Raukawa, Ngāti Maniapoto, Waikato Tainui, Ngāti Rangiwewehi me Rangitāne) is CEO of the Rauawaawa Kaumātua Charitable Trust. She brought networks of kaumātua service providers and kaumātua to the table to ensure they had leadership and input throughout the design, execution, and dissemination phases of the mahi.

Kaumātua Mana Motuhake Pōi extends and diversifies research carried out in Phase One of Ageing Well with three main components. The first is an intervention to increase support for kaumātua that draws strength from tuakana-teina relationships. For every challenging situation kaumātua face in life, there are others who have been through similar challenges before. By talking about tough experiences, people can

learn from each other and better navigate their own trials. As Rangimahora explains, “If nobody shares, everyone has to go through the process from scratch”.

The tuakana-teina project used a peer support model to match older experienced people (tuakana) with younger peers (teina). The teina recruited for the study were facing health or social challenges or big life transitions such as loss of a partner, loss of independence, or a health diagnosis. Tuakana were trained to support teina by active listening, sharing and helping to access support services or specialist referrals. Each tuakana served as a peer educator for six teina and had a series of conversations with them over six months.

A trial was rolled out in Kirikiriroa Hamilton with about 120 kaumātua in Phase One of Ageing Well. Given the positive outcomes for both tuakana and teina, the research was extended to five other rohe (areas) in Phase Two of the research. Baseline surveys, with follow-ups after the intervention,

enabled the impact of the tuakana-teina model to be assessed. It was found to be cost effective and beneficial for participants, having a particularly positive impact on quality of life, housing, and paying bills.

This project exemplifies the remarkable outcomes of kaupapa kaumātua initiatives, where kaumātua that had a teina role, were strengthened through peer support and those that were tuakana were further empowered by contributing their valuable experience and wisdom.

Mātauranga Tuku Iho – the handing down of traditional knowledge – was at the core of the second project in the *Kaumātua Mana Motuhake Pōi* program. The overall aim was to boost health and wellbeing through intergenerational cultural exchange and physical activity, but each individual rohe determined the content of their program in a locally relevant way.

Co-designed by kaumātua service providers and kaumātua, a series of wānanga were held to cover four main pillars: te reo Māori, local cultural knowledge, future generations, and physical exercise. Activities were held after each wānanga to consolidate what had been shared and consisted of physical movement in a cultural context such as walking to places of local significance, gardening, gathering kaimoana, as well as sharing mātauranga. Kaumātua who went through this He Huarahi Tautoko (pathway of support) each invited a younger whānau member to join them to foster the intergenerational knowledge transfer.

The impact of the *Mātauranga Tuku Iho* project was measured with questionnaires and physical functioning tests before and after the nine-months of activities. There was a statistically significant improvement in physical functioning for the participants. But, almost more important in the time of COVID-19 and social distancing, was social connection. Kaumātua appreciated being together and learning from each other, “And thank you for bringing these things to us because it’s kept us bonding and it’s strengthened us, not only here but outside there in the world... And these things in our group it’s like a pill. When we come together again, oh, there’s my pill for the month”. The younger

generation also benefited, “This program is an excellent stimulus for encouraging me and others in our iwi to think about our physical health and well-being of the koroua and kuia”.

The third component of the research was bolstering the Kotahitanga Research Network (KRN) which was established in Phase One of Ageing Well as a collective of academic and community researchers, kaumātua service providers, and other stakeholders. The KRN takes a truly collaborative approach to research that encompasses what kaumātua and their communities consider to be the important issues. It ensures that stakeholders contribute to project design thereby increasing the relevance, uptake, and implementation of findings.

Kaumātua are a key focus of the Kotahitanga Research Network with the researchers acknowledging that they hold the tools for ageing well. And that by facilitating opportunities to activate kaumātua-led mana motuhake, the program is successfully empowering kaumātua, guiding them towards a journey of health and wellbeing, and celebrating their strengths and resilience in overcoming past challenges.

Bridging the gap between academia and community has been crucial to the success of *Kaumātua Mana Motuhake Pōi*. It could not have been done without the Rauawaawa Kaumātua Charitable Trust. Rauawaawa are a “by kaumātua, for kaumātua, with kaumātua” community provider based in Kirikiriroa. They have been empowering kaumātua for over 25 years. What started as an initiative to provide activities for kaumātua facing loneliness, is now a multi-pronged organisation that carries out research, organises national conferences, offers activities, and health, social, and education services for kaumātua.

Rangimahora has been leading Rauawaawa for 13 years. She explains that while research isn’t their core business, they see real benefits in doing it. “We are interested in how positive change and scientific evidence can help us get buy-in from agencies that are critical for creating enabling environments for kaumātua in Aotearoa”.

While research is important for Rauawaawa, so too is translation into practice. Participants have benefitted from activities run as part of research programs but how do these activities become accessible to more people on an ongoing basis? Te Aka Whai Ora (the Māori Health Authority) has provided one year of funding for Rauawaawa to run the “Matauranga Tuku Iho” program in the community. The future of the tuakana-teina initiative is currently under consideration for funding.

Kaumātua Mana Motuhake Pōi has demonstrated that initiatives that support and educate kaumātua to be in charge of their own destiny, reap quality of

life and physical health benefits for participants.

But it's not just about individual health and wellbeing. There's a positive feedback loop here. Contributing to their whānau provides wellbeing benefits for kaumātua as Mason Durie writes, “A hallmark of wellbeing for older Māori is the capacity to provide leadership and direction, despite advancing years, and regardless of socio-economic position”. And, as his opening words to this story illustrate, having healthy, active, contributing kaumātua, leads to higher quality of life for the whole community. That's a win-win situation for Aotearoa. ■

Researchers:

- Professor Brendan Hokowhitu
- Professor John Oetzel
- Rangimahora Reddy
- Associate Professor Mary Simpson
- Associate Professor Sophie Nock
- Ms Stacey Ruru
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The Taranaki kaumātua rōpu with Tui Ora community researcher Ngareo Akariri, and KMM Pōi researchers Pare Meha and Professor John Oetzel.

Utilising mana motuhake for Māori health

WHY?

The negative effects of colonisation have had a profound and long-lasting impact on Māori health and wellbeing. Sovereignty has been depleted in Māori lives as a result of colonisation, so mana motuhake provides a potentially powerful pathway back to health.

HOW?

University and community-based researchers jointly led kaupapa kaumātua research that developed programs to foster an individual and collective sense of self-determination and autonomy with the aim of empowering kaumātua to live long, high-quality lives.

WHAT?

“Kaumātua Mana Motuhake Pōi” trialled and/or extended two initiatives that support kaumātua to be in charge of their own

destiny. The tuakana-teina project used a peer support model to guide kaumātua through challenging life transitions. It was assessed to have improved the quality of life of participants and be cost effective. The “Mātauranga Tuku Iho” program used intergenerational cultural exchange and physical activity to boost health and wellbeing. Assessment showed statistically significant improvements in physical functioning for participants. The Kotahitanga Research Network, which involves kaumātua in the research process, was also bolstered as part of this work.

WHAT NEXT?

Translation into practice is an important part of kaupapa Māori research. Currently Te Aka Whai Ora is providing one year of funding to continue running the “Matauranga Tuku Iho” program. The future of the tuakana-teina initiative is under consideration for funding.

Community and relationships



Waiho i te toipoto, nāku te rourou, kaua i te toiroa.

Let us keep close together, not wide apart.

The success of the research in Phase Two comes from the power of community. How the relationships we've had with others underpin our approach to doing science differently. The knowledge that has been shared and jointly created is a direct result of whakawhanaungatanga – building and continuing relationships. This is the cornerstone of Ageing Well's impact and legacy.

"The collective noun that we use for our researchers, partnering organisations and communities is whānau," explains Professor Louise

Parr-Brownlie, Director 2020 - 2023. "The whānau's response, that collective responsibility, is so important in understanding and doing what needs to be done. We can't do our job without our whānau. We wouldn't achieve what we have without them."

Our community partners walk alongside our kairangahau whānau informing us of what is needed across sectors to add life to years. Together, we have shaped projects, shared active roles in the research, and applied the collective knowledge to create real change 'on the ground'.

Our relationship-based research journey

When we shifted from Phase One to Phase Two, we already knew the importance of communities doing their own research, so they could continue the mahi beyond the life of Ageing Well. Firstly, this meant that we needed to create more opportunities than we had in Phase One to listen to more people – including leaders, researchers, communities and policy makers, as well as service delivery organisations and non-government organisations.

Ageing Well appreciate what we do and recognise the value in the model we use – core people start to contribute, they find their own purpose and bring a wealth of knowledge. There have been amazing outcomes that are relevant, timely, and from the people.

Rangimahora Reddy, CEO Rauawaawa
Kāumatua Charitable Trust



Researchers from Rauawaawa engage in kōrero with Ageing Well Governance Group member Adrienne von Tunzelmann at an Ageing Well wānanga.

“It was a deliberate and wilful, ‘get out and talk with people,’” says David Baxter, Director. “Not only did we get the folks in public health and geriatricians in, but we balanced that with, say, ‘who’s working in the housing space? What have they got to bring to this?’”


“It was important to get that cross-diverse representation. The relationships then flourished – and it’s important to keep that whanaungatanga going.”

This approach is shared throughout the research whānau. Associate Professor Mary Simpson, a researcher from the University of Waikato and involved in Ageing Well since its inception reflects, “We were always thinking, ‘how are we going to respond to community need?’ and ‘we don’t

know what the problems are.” This awareness was a catalyst for the dialogue, and opened new pathways for relationships.

Secondly, these relationships were also supported through a change in the funding model to prioritise research that already had some pre-existing relationships with hapori Māori and other communities.

“We made a commitment to encourage our researchers to get out there and, if they hadn’t already, forge strong relationships with their communities and partnering organisations,” explains Dr Will Edwards, Chair. “They needed to make solid relationships and contribute to those relationships, because those relationships will outlive the life of this National Science Challenge.”



Director of the Office for Seniors Diane Turner places a note for discussion at an Ageing Well wānanga.

Elevating kaumātua voices

“When we get researchers alongside practitioners and, even better, alongside older people themselves and we are hearing them, then we can start to ask ourselves, ‘oh, maybe *that’s* the research question we need to ask,” continues Will. “We can have those conversations right from the point of articulating, ‘what is a good research question?’. Rather than having some university isolated researcher just looking at some articles and saying, ‘oh, I want to investigate that.’”

For the community, this approach was something of a surprise. “It was out of the blue,” reflects Rangimahora Reddy, CEO of Rauawaawa Kaumātua Charitable Trust. “The starting

point was, ‘what was our priority?’, ‘what was meaningful for us?’, rather than how we could fit into their interest areas. It was very empowering – kaumātua could identify, shape, and inform projects that would affect their own wellbeing.”

What Rauawaawa and Ageing Well discovered was, while we ‘regard our kaumātua as treasures’, well-meaning children can interfere with kaumātua decisions about their own lives. This strips them of agency and control. The process of listening to kaumātua highlighted the issues that were of real concern, and allowed research to address these. It also opened up new spaces for kaumātua to be heard.

People power: community as researchers

Another profound effect of our relationships with whānau was communities becoming active partners in the research. This creates the strongest possible relationship that any researcher can have, because they are part of that community.

Our Māori and Pacific research teams, especially, prioritise having community embedded researchers. This is because community researchers are trusted and have direct insight into their communities’ unique perspective on what it means to ‘age well’.

“With Māori, there is a deep distrust of research, and so Māori don’t want to be part of it,” says Rauawaawa community researcher Pare Meha. “But I was Māori, known to them, I speak the way they speak, my whakapapa, gender, and religion were a door opener.”

In turn, this led to research questions – and therefore answers – that are immediately relevant and helpful to that community. It also empowered community members to learn about research, understand it, and do it. The result is that this gives

communities full autonomy – mana motuhake – over both understanding the problem affecting them, and creating the solutions that work best for them.

The *Kaumātua Mana Motuhake Pōi* project (see page 89 for more) with Rauawawa is one example of this approach. This is a unique partnership between the Universities of Waikato and Queensland and the Rauawaawa Kaumātua Charitable Trust. Rauawaawa Kaumātua Charitable Trust is an organisation run 'by kaumātua for kaumātua'. It has been providing services for more than 600 kaumātua in Kirikiriroa, Hamilton, for over 25 years.

Along with creating a peer-support model (tuakana teina) to help individuals navigate difficult situations through hearing others' shared experience, the project also intentionally facilitated passing knowledge – and wellbeing – to younger generations. It did this by having kaumātua invite along family members to peer support activities, such as wānanga (discussions), hīkoi (walking), gathering kaimoana (seafood), and tending to the maara (garden).

Rangimahora was instrumental in setting up the relationships between the researchers, kaumātua service providers and kaumātua. She and others at Rauawaawa ensured that kaumātua, as the end users of the research outputs, had input on

all aspects of the research project. This meant that the kaumātua were not only subjects of the research, but also researchers.

"It is good to see the potential of kaumātua to contribute to the 'doing' and that meant resources were not wasted," explains Rangimahora. "Ageing Well appreciate what we do and recognise the value in the model we use – people start to contribute, they find their own purpose and bring a wealth of knowledge. There have been amazing outcomes that are relevant, timely, and from the people."

For Pare, the mahi has been all-encompassing, but, ultimately, worth it. "I expected to have an admin support role, but it grew. It was hard, it was a lot of work, but these became the best years ever," explains Pare. "I began to own the process. My whakaaro is, 'if the kaumātua want it, then it's good!'"

Relationships and community are also seen as pivotal to the success of the project by the university researchers involved – Associate Professor Mary Simpson and Professor John Oetzel.

"We see communities already creating change, we're illustrating how research can make impact, and we're getting research insight that we didn't see before," says John.

Continuing whanaungatanga beyond the Challenge

These relationships and community connections will endure beyond the life of Ageing Well. The process has encouraged academics and communities to work together, pooling mātauranga Māori, collective life experiences, and research techniques to increase capacity, and create new knowledge and benefits for kaumātua.

"The Rauawaawa Kaumātua Charitable Trust has come from a place where they did things very well in terms of servicing their community then reaching out and engaging to do research," says David. "Now they're tapping into the best aspects of the scientific toolbox, pulling out the tools that

they need and using them within a culturally embedded sense to do something that's different.

"The very fact that some of the members of that community are being encouraged to do more advanced study means that they see research as something that they can do. It's no longer just for the well-educated white folk to come along, do the research, and then leave. It's now part of what they do, and they see the value in doing it. The transformation of that community based organisation and that community has really been something to watch." ■

Phase Two impacts



I feel that we've fostered a mind shift, where we are here as scientists and people to serve our communities and to try and lead to impacts together.



Dr Will Edwards, Chair

Impact can mean different things for different people. While some people may want to focus on a change between the numbers before and after an intervention, others measure it by how widely it's been taken up by communities across Aotearoa, or by how much the research paper has been cited by other researchers.

"You could ask, 'Okay, where's the publications, what's the journal impact factor?' Those are very hard, quantifiable indicators of how you're doing research," says David Baxter, Director. "Or you could ask, 'How has this research led to service development, or policy development?', which is very difficult to measure."

"What we have demonstrated is you can 'do science differently' and that means looking at impact differently," continues David. "As we evolved from Phase One to Phase Two, it became much more about building a network. It's about creating a family of researchers, communities, NGOs and more. For me, that is just as important as the publication and the service."

It's why the Challenge has moved away from usual reductionist research methods to taking

a more holistic, people-centred approach. Both science-led and mātauranga-led research needs to contribute equitably to a co-creation of knowledge that translates into real-world gains for communities, including hapori Māori.

Will Edwards, Chair of Ageing Well, adds: "Surely, that's what science is here to do, to serve our communities? It's not about the researchers, it's not about the research funders and it's not about the science system. It's about the community, who we serve. I feel that we've fostered a mind shift, where we are here as scientists and people to serve our communities and to try and lead to impacts together."

For many projects, there are physical outcomes that create impact, alongside the research that informs these outcomes. For example, as a way of capturing and sharing about brain health, the master carvers in the whānau leading *Te Roro* (see page 33 for more) will be creating a whakairo (carving), as well as bilingual publications and reports. The whakairo is going to be placed in the community that conducted the research, as mātauranga tuku iho, knowledge passed to the next generation.



Chief Executive of Age Concern New Zealand, Karen Billings-Jensen, and researcher Associate Professor Michal Boyd present the kōrero of their team at an Ageing Well wānanga.

Ehara taku toa i te toa takitahi, engari kē he toa takitini.

My success should not be bestowed onto me alone, it was not individual success but the success of a collective.

Another example is the film *Manawaroa – Still Going Strong* (see page 51 for more), which was co-created by older people of diverse cultural backgrounds with younger filmmakers. The purpose was to get people – including the filmmakers themselves – thinking differently about the important and complex issue of social isolation as people age.

“People feel really whakamā (shy) about talking about loneliness, but actually when people are lonely, it’s the equivalent of smoking a packet of cigarettes a day on their health,” explains Louise. “That’s how important it is that they stay connected.”

Manawaroa has reached many audiences through Ageing Well’s partnership with Age Concern, who feature the film on their website. Age Concern is continuing to screen the film to facilitate discussions about social connections

of older New Zealanders, and the University of Auckland Nursing Programme is using *Manawaroa* to stimulate discussions among its students and staff on loneliness in older people and how that differs across cultures.

These are just a handful of the wide-reaching qualitative and quantitative impacts that have come out of the many projects the Challenge is proud to support.

“Something I’ve learned over the years is that any research project is just a small part of the overall goal of working towards equity,” says Will. “Funnily enough, there’s been many occasions where we’ve had to ask ourselves, ‘what are we missing here? Things seem to be going too well in this space!’ Because we’ve got such a good vibe between our researchers, and they’ve been doing really well, even when COVID-19 hit, we were still able to get closer to reaching that goal.” ■



Ageing Well researchers discuss the future solutions for ageing in Aotearoa at an Ageing Well wānanga.

CASE STUDY

Holistic wellbeing for kāiga Tokelau

The Lifecourse Project, funded in 2021 by A Better Start, Healthier Lives and Ageing Well National Science Challenges is a good example of a cross-Challenge project with wide-reaching impacts (see page 79 for more).

Dr Ofa Dewes has been working with Tokelau kāiga (kinships) in Wellington and Auckland, as one of four strands of the project. Ofa and kāiga have been looking across all stages of life and in all members of the kāiga – not just Fatupaepae (female elders) and Toeaina (male elders). Their focus is to find out what strengths allow members of the kāiga to thrive while living with chronic diseases, such as diabetes. Ofa's relationship with the community has created a starting point in improving wellbeing for the community that extends far beyond physical health.

"Very rarely do Tokelauan communities get the opportunity to be engaged in research," says Louise. "That means that although kaumātua weren't hesitant about being

involved – because they already trusted the researcher – they weren't confident about having their story shared.

"We've got a photo book system that's being done, and what I heard was that they've gone from being reticent about sharing to now wanting their story to be shared. A couple of them were in the Tokelauan language. For example, one story was around traditional ways that they made their fishing lures and hooks from shells. So this kaumātua is now sharing all that knowledge. The uplifting that it has created for them and for their whānau is going to be significant. I couldn't have even predicted any of that, and it's an amazing outcome that comes from that relationship."

Manatua te toeaina i te mulivak. Remember the old man at the helm of the canoe.

– This Tokelauan saying signifies the prestigious place that elders hold, as leaders and knowledge guardians.

CASE STUDY

Halving injuries and falls in kaumātua

The Māori-led falls prevention programme *Taurite Tū* (see page 76 for more), has created a significant impact in successfully reducing the risk of falling, and risk of injury from falling, for Māori aged 50+.

The results from the 18-month trial programme in 2022–2023 showed that the proportion of participants reporting an injury, following a fall dropped from more than 25% before the trial to 15% after it.

The proportion of participants reporting any kind of injury also dropped from almost 55% before, to about 30% after. Similarly, the proportion of participants saying they had received rehabilitative treatment in the past year for any injury or medical event also halved from nearly 60% to under 30%.

As the trial was rolled out to five other locations across the motu, the same kind of findings were reported, demonstrating that not only did the programme work in addressing injury risk but that it was also transferable and reproducible.

While the quantitative data provided hard evidence about the programme's effectiveness, the qualitative data also spoke volumes. Participants reported positive impacts of exercises on their physical health, including increased strength and balance and improved walking ability.

Alongside tinana, the programme also strengthens many other facets of hauora Māori, simultaneously. By having classes in te ao Māori, participants can reconnect with the cultural identity that, for many older Māori over 50, had been taken away.

Working with the key ACC staff committed to improving ACC services for Māori, in 2023 *Taurite Tū* signed a contract with ACC to expand into 15 new rohe across Aotearoa.

Now, *Taurite Tū* can be found across the motu, from Whangārei to Bluff, transforming the lives of over 450 kaumātua Māori. Many kaumātua requested local variations to be applied. Based on their feedback, it has been empowering for them to see the programme being adapted. This has ramped up their engagement and participation.

In the same vein, *Taurite Tū* has lifted Māori health research capacity by upskilling over 35 people in kaupapa Māori techniques in health research and delivery. As a physiotherapy-based exercise programme, it provides opportunities for physiotherapists to offer kaupapa Māori solutions within their practice. Likewise, the University of Otago undergraduate and postgraduate physiotherapy curriculum now includes kaupapa Māori research techniques.

Read the full report on the *Taurite Tū* website:

<https://www.tauritetu.co.nz/media/3brisyimb/research-report.pdf>

Celebrating good mahi



Throughout the second phase of the Challenge, we have been delighted to congratulate the following people on receiving recognition for the excellent quality of their mahi and its significant influence and impact in Aotearoa. Kei runga noa atu!

We are incredibly proud of and thankful for the mahi that every single member of the Challenge whānau has contributed – whether a study participant, facilitator or research team member. If it were up to us, all of those working tirelessly ‘behind the scenes’ would be recognised just as highly. E mihi ana ki a koutou, e te whānau!

2023

Associate Professor Clive Aspin – *Te Rangi Hiroa Medal, awarded by The Royal Society*

Clive (Ngāti Maru, Ngāti Whanaunga, Ngāti Tamaterā) was awarded this medal by Royal Society Te Apārangi for national and international contributions to addressing inequities for Māori and Indigenous peoples in Aotearoa, particularly in relation to suicide prevention, sexuality and HIV.

Dr Will Edwards and Dr Ofa Dewes – *King’s Birthday and Coronation Honours List*

Will (Taranaki, Ngāruahine, Tāngahoe, Pakakohi, Ngāti Ruanui) was named as Officer of the New Zealand Order of Merit (ONZM) for his service to Māori health.

Ofa (Fiji-born Rotuman, Tongan, Tuvaluan, with affiliation to Ngāti Porou) was awarded the Member of the New Zealand Order of Merit (MNZM) for her service to health and the Pacific community.

Professors Valery Feigin, Rita Krishnamurthi and team – *Prime Minister’s Science Prize*

Valery, Rita and their team at the National Institute for Stroke and Applied Neurosciences won this prize for their research into strokes – the first to reveal 30-year trends in inequities in stroke incidence and outcomes – and for developing groundbreaking digital tools for patients and clinicians to help reduce stroke worldwide.



Minister for Health Dr Ayesha Verrall, Dr Alexander Merkin, Professor Rita Krishnamurthi, Professor Valery Feigin, Bala Nair, and Chief Science Advisor Professor Dame Juliet Gerrard at the Prime Minister's Science Prize ceremony.

2023

Professors Brendan Hokowhitu, Merryn Gott, Waimarie Linda Nikora, El-Shadan (Dan) Tautolo, Louise Parr-Brownlie and Associate Professor Clive Aspin – Appointed to Chair Performance-Based Research Fund (PBRF) Peer Review Panels

Six Ageing Well whānau were appointed to chair some of the 14 peer-review panels for the Tertiary Education Commission's (TEC) Performance-Based Research Fund (PBRF) Quality Evaluation 2026. These peer-review panels review research evaluation portfolios submitted to the PBRF Quality Evaluation, as well as develop panel-specific guidelines and assess the Evaluation Portfolios in 2026. They will conclude their engagement with the writing of a final panel report in early 2027.

2022

Dr Bev James – Queen's Birthday Honours List

Bev was awarded the Member of the New Zealand Order of Merit (MNZM) for her service to senior citizens, particularly her contributions to research addressing older people's housing needs in culturally responsive ways.

Dr Tess Moeke-Maxwell – Te Tohu Rapuora Award, Health Research Council of New Zealand

Tess (Ngāi Tai Ki Tāmaki, Ngāti Porou) was awarded this medal for outstanding leadership and contribution to Māori health for improving palliative care, end-of-life and tangihanga experiences for Māori kaumātua and whānau throughout Aotearoa.

Professor Valery Feigin – Liley Medal, Health Research Council of New Zealand

Valery was awarded this medal for his landmark research paper showing for the first time the global, regional, and national burden of stroke and its risk factors in all the world's 204 countries.

Associate Professor Diane Ruwhiu – Commissioner of Productivity Commission

Diane (Ngāpuhi) was appointed as Commissioner of the New Zealand Productivity Commission for "bringing world-leading insight, research, and educational leadership" and for understanding the future productivity and wellbeing challenges Aotearoa faces.

2021

Dr Joanna Hikaka – *Fulbright Science and Innovation Graduate Award*

Joanna (Ngāruahine) received this award to research the development of pro-equity healthcare interventions for older adults at Brown University in Providence, Rhode Island. Since then, she has gone on to receive other awards, such as the Early Career Research Excellence Award (2023) from Waipapa Taumata Rau University of Auckland.

Associate Professor Marama Muru-Lanning and team – *Te Taumata Rangahau Research Excellence Awards*

Marama (Waikato, Ngāti Maniapoto) and her research team received this award from Waipapa Taumata Rau University of Auckland for creating new methodologies from kaupapa Māori and social anthropology to include the voice of kaumātua in health, social and environmental policy and services.

Professor Angus Hikairo Macfarlane – *Queen's Birthday Honours List*

Angus (Ngāti Whakaue, Ngāti Rangiwewehi) was made a Companion of the New Zealand Order of Merit (CNZM) for his services to education, psychology and Māori, particularly in contributing towards a more culturally inclusive education system with engagement that emphasises Māori preferred ways of teaching and learning.

2020

Professor El-Shadan (Dan) Tautolo – *Pasifika Award, Public Health Association of New Zealand*

El-Shadan was the recipient of the inaugural *2020 Pasifika Award* for his outstanding achievement and leadership in Pacific public health, particularly the ground-breaking Pacific Islands Families (PIF) Study that continues to track the development of almost 1400 children born at Auckland's Middlemore Hospital in 2000.

Rauru Kirikiri – *Companion of Royal Society Te Apārangi*

Rauru (Te Whānau-ā-Apanui) was made Companion for his groundbreaking work in embedding mātauranga Māori into science across the Crown Research Institutes and universities, and for bringing te ao Māori perspectives into tertiary education and beyond.

Dr Alison Margaret (Sally) Keeling – *Queen's Birthday Honours List*

Sally was awarded the Member of the New Zealand Order of Merit (MNZM) for her services to gerontology, particularly her contributions to *Te Puāwaitanga O Ngā Tapuwae Kia Ora Tonu Life and Living in Advanced Age, a Cohort Study in New Zealand* – the world's first longitudinal study of an Indigenous population aged 80 plus.

Charles Waldegrave – *Ollie Randall Symposium Award, Gerontology Society of America*

Charles received this award for exploring cutting-edge issues with broad implications for policy or practice, demonstrated by his symposium presentation *Social Exclusion and Material Disadvantage: Housing, Poverty, and Living Standards Impacts*. ■

Legacies and future pathways



Ageing Well has helped uplift the team at Rauawaawa, raising their gaze... The focus has shifted to a more strategic approach to kaumātua wellbeing – how do we inform ourselves about what kaumātua want and need?”



Rangimahora Reddy, Rauawaawa Kāumatua Charitable Trust CEO

The most significant legacy that Ageing Well has created is evidence that mission-led research will add life to years, create equity, and be used by communities long after its conclusion. As with all National Science Challenges, the research programme shows that taking a cross-disciplinary, Te Tiriti-led approach delivers world-leading science excellence that is innovative and impactful.

“We’ve made real changes because our science is serving the community, through being kaupapa-driven and kaupapa-centred, rather than institutionally centred,” says Dr Will Edwards, Chair. “Our kaupapa of improving the lives of older people in Aotearoa predates this National Science Challenge and will outlive it. We’ve got our reality glasses on – we always knew that 10 years is just a flash in the pan.”

As the work of the Challenge comes to an end, the issues facing our ageing population continue. If we are to truly realise a future in which older people are fulfilling their unique potential and living their best life, it is crucial that the relationships our whānau have forged – and the impacts emerging from these – continue regardless of what the future research, science and innovation sector might look like.

“Unlike the Hollywood movies, one individual cannot make a difference,” explains Professor David Baxter, Director. “It needs a whole collection of people, and maintaining those networks is the key thing that I’d like to see continue. Ultimately, it comes down to resourcing, but sometimes the thing that’s most important is not actually the most expensive.

These relationships have, and continue to be, both the foundation for, and the catalyst of legacies that we will always be so proud of. E poho kere ana tou! From influencing health policy, to making care services more relevant, to the creation of a new Pacific health research centre, to local grassroots wellbeing programmes being rolled out nationally. These are just a handful of the changes that we have supported and been part of. It’s why, for so many of us involved, it has been a challenging but incredibly rewarding decade of mahi.

“We have established a fellowship position for one of our senior researchers to go into the Ministry of Health for a few months,” says Professor Louise Parr-Brownlie, Director 2020 – 2023. “The Ministry of Health is making large changes to implement policies around healthy ageing, so the researchers will use their expertise to land that implementation.



Associate Professor Mary Simpson listens to Rangimahora Reddy of Rauawaawa present at an Ageing Well Symposium.

“They will be helping to answer questions such as, ‘what will really work when it’s down at the community level?’ and ‘what might be needed around workforce development?’ and so on. That’s really creative, as that hasn’t really been done before.”

An important strand that weaves across all our mahi is knowledge sharing and guardianship. We know that the knowledge we’ve gained over the past decade is koretake – useless – unless it’s shared. This knowledge sharing is diverse. It ranges from creating a repository of scientific publications, to advising policymakers, to empowering communities by training members on how to do research and implement the findings to directly benefit their older people. Knowledge includes information about the current gaps and limitations in what we know that we need to address, as well as what works or doesn’t work, in terms of implementation.

“The researchers are the kaitiaki of that knowledge, along with their communities or other communities elsewhere,” says Louise. “But as we went into Phase Two, we shifted towards the community holding the data – especially for our Māori projects. That’s something we’ve been

advocating for more. The knowledge is theirs, it’s not ours. We will never get the intellectual property. It stays with the community.

“We’ve helped set some projects up well, so that they will have perpetuity. The project that they’re doing now will give them opportunities that will get funding elsewhere in the future so that they can keep using those data sets and amplifying the knowledge that they get from that. We also expect our network of people that we’ve funded, and our partners, to maintain their collaborations on that knowledge for a while after the Challenge ends.”

Similarly, it’s been important that our project teams and their communities have ownership over continuing to apply this knowledge and creating change ‘on the ground’. One of our biggest legacies lies in communities being empowered to understand and address the unique challenges they face in ageing.

“For example, the community leading the falls prevention, and strength and balance programme out of Ōtākou Marae are already taking that programme to other marae across the motu,” says David. “They are a strong group who have already set up a nonprofit company to keep it going, to provide an entity for it that’s already in place.



Ageing Well researchers and whānau at a wānanga in 2022.

Three to five years down the line, if some new funding opportunity comes along, then they're already research-empowered and ready to be useful partners."

The *Kaumātua Mana Motuhake Pōi* project (see page 89 for more) is another example considered a highlight of Ageing Well's numerous legacies.

"They're doing great stuff and will continue to keep on cruising, regardless of what we're doing, because they've got great relationships with the people on the ground and with the practitioners," says Will.

The series of projects with Rauawaawa Kaumātua Charitable Trust are a telling example of the journey that that we have been on together, and where the road ahead lies.

"Ageing Well has helped uplift the team at Rauawaawa, raising their gaze – we always had the skills to care for our kaumātua, but the focus was on contract delivery," says Rangimahora Reddy, Chief Executive Officer for Rauawaawa Kaumātua Charitable Trust. "Now the focus has shifted to a more strategic approach to kaumātua wellbeing – how do we inform ourselves about what kaumātua want and need?"

This shift has been borne out of the commitment to working with communities at every stage of the

research. It is perhaps these relationships that will be the most important legacy of the project, according to lead researcher Professor John Oetzel.

"The capacity the community partners have developed for research will have the most long lasting impact," he says. "This growth in capacity to evaluate projects will continue to mean that communities can gather the evidence they need to support their mahi and win funding, and add to the knowledge base for other providers."

For Rangimahora and her colleague, Pare Meha, it has also been a personal journey.

"Working with Ageing Well has been a stepping stone to the world of a researcher," says Pare. "I can see how I have grown in confidence because of Ageing Well. When I am in hui with researchers I feel at ease, I understand how things work and there isn't a divide."

Pare and Rangimahora are currently preparing to embark on PhD programmes, but their own development is not the motivation. Instead, their research journey is inspired by a desire to gain skills that will benefit the community and take on topics that kaumātua have identified as important. Plus, in a world which still values academic qualifications over community voices, their PhDs will provide credibility to Rauawaawa



in advocating for policy change and future support for projects.

Similarly, our research whānau have also benefited, according to Associate Professor Mary Simpson, a researcher who has been with the Challenge since its inception. “The community holds the knowledge,” she says. “Researchers are in service to the community. Research needs to be community based and driven.”

The exceptional and lasting results from the Rauawaawa project has also precipitated a shift in how the research sector recognises the value of participatory partnership research. “If we want our research to matter, to have impact, to bring positive change, then we can’t operate in silos and expect change to happen,” says John. “It’s made it really visible that engagement, partnership and community is necessary.”

All our participants agree: these results are only possible because of the funding, structure and mission-led approach of the Ageing Well National

Science Challenge. Across the projects, there is one shared hope: we don’t want this mahi to stop.

“The research and the value it has to others is incredibly important. But the real legacy is going to be much greater than that,” says Louise. “Only in the next two to five years will we see how far we have come. We’ll see where these community researchers, who have never been to university but knowledge and the right way of engaging their people, end up going with their PhDs.

“We’re seeing our younger researchers who came through as PhD students already flourishing as principal investigators and becoming the next generation of leaders. I know they’re going to amazing places. It’s almost like, in five years’ time, we need to track this to show where everything has gone, where everyone’s landed, what they’re doing, and how that has really changed the landscape. That was purely because of making the decision to be equity focused and Māori-led.” ■

Knowledge hubs and resources

Research Outputs Inventory, produced jointly with Healthier Lives and A Better Start National Science Challenges

<https://www.ageingwellchallenge.co.nz/collating-the-impact-of-our-research/>

Ageing Well Wikipedia entry:

https://en.wikipedia.org/wiki/Ageing_Well

Pacific health research centre:

Health and wellbeing, including in ageing, is not equitable for Pacific communities. Through continuous Ageing Well funding throughout Phase One and Two, the Tongan community established the Langimalie Research Centre in 2022 to lead Pacific health research that will deliver impact specific to this community.

Dr Glenn Doherty, Chief Executive and Medical Director of the Tongan Health Society, says, "The Tongan Health Society has strong connections with diverse Pacific communities and our culturally centred approach is designed to ensure the voices of older persons are heard, understood, respected, and actioned."

We've worked with Te Whare Wānanga o Ōtākou the University of Otago Library (<https://www.otago.ac.nz/library>) to create a lasting **repository of all our publications and research papers**. This means anyone can access all the research we've funded – and the knowledge that comes from it. It is our hope that this will help future researchers and decision makers build on this knowledge and apply it effectively towards our shared goal of achieving equity in ageing in Aotearoa.

Housing:

Housing is a pressure point for older New Zealanders. We held the Aged Care and Housing Symposium, which focused on two of the biggest issues as we age: housing and residential aged care. The symposium and the resulting report that captured what was discussed, focused not just on the pressure points but also potential solutions.

"The concepts and ideas that were raised will continue to be hot-button issues long after the end of our Challenge," says Louise "This report was designed to ensure these ideas are captured and the conversations can continue".

<https://www.ageingwellchallenge.co.nz/aged-care-and-housing-report/>

We also partnered with the Building Better Homes, Towns and Cities National Science Challenge and the Centre for Research, Evaluation and Social Assessment (CRESA) to support Ageing Well researcher Dr Kay Saville-Smith and her team to publish *Reflections on Kaumātua, Pakeke, and Seniors Housing* in 2022. <https://www.ageingwellchallenge.co.nz/launch-of-new-housing-research-booklet-reflections/>

Directors' insights



It's heartwarming to see the extent of the impact and legacy that has been created in the past decade by our research whānau with, and for, our older community members in Aotearoa.

Alongside the more quantifiable, tangible outputs, one aspect that is difficult to measure are the intangible changes that have emerged from the mahi. There has been a real change in the narrative around what and how we research ageing. For example, there has also been a subtle but noticeable shift in how younger generations now view the oldest – as the taonga that they are.

"The opportunity for kaumātua to be involved in research has meant some of their skills and knowledge that others haven't appreciated, have come to the fore. Others are now starting to really value and appreciate it," says Professor Louise Parr-Brownlie, Director 2020 - 2023.

"When you talk to kaumātua and older people, they are usually really engaged within their community – whether that's volunteering at their sports club or being carers in their whānau during the school holidays or after school. They are doing meaningful, important work and the value of that is significant. If they went on strike for two days and their mahi wasn't being done, New Zealand would fall apart!"

Intangible changes can be hard to measure, in terms of impact. Often, what starts out as a single change can end up creating a positive ripple

effect that radiates across the whole community.

"That might be as simple as the community knowing what research is, how it works and how they can contribute to it, as a baseline. Otherwise, how are you going to care for people if you don't know what the research says?," says Professor David Baxter, Director. "By changing who does the research, that's also creating role models for younger people in that community who say, 'I can see them doing that and I could do that' – which is transformation in action."

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Professor David Baxter, Director

Right from the start of the Challenge, it was clear that placing too much emphasis on the tangible, quantitative outputs of Challenge-funded research would be a disservice and not take into account real-world equity in ageing.



Ageing Well Kaumātua Koro Hata Temo, Chair Dr Will Edwards,
Director Professor Louise Parr-Brownlie and Director
Professor David Baxter.

Says David: "There is a risk that you say, the quantitative outcomes are the most important: 'tell me the dollars', 'show us where the money is saved' or whatever. But you'd need very clever economists to be able to put dollar values on the change that's not immediately obvious.

"While a randomised controlled trial might answer one question very well, it is unlikely to have an enduring impact on the people who had been involved in that study," he continues. "Whereas community-led research engages people from the outset and they get something at the end that's immediately relevant to that community."

From experience, Ageing Well has showed time and again that these embedded projects change the community in a way that creates a virtuous spiral. This may include giving them the boost in confidence or the wider network they need for initiating more research or actions that, in turn, lead to more positive changes.

"The statement - if it is right, do it - is something that has shaped our approach to working with research teams and community," explains Associate Professor Diane Ruwhiu. "Even if doing it right, meant taking more time or investing

more in people or programmes. The bottom line wasn't driven by dollars and outputs, it was about outcomes we could stand by!"

For Louise, she was directly affected by one of the most impactful yet intangible changes to arise from Ageing Well's bold move to 'walk its talk'. That came from pushing for equity not only in ageing, but also in how they did the mahi.

"It's the feeling that you have when you walk in the room. Being Māori in a lot of Western-dominant spaces, such as in academia, you always feel like the round peg in a square hole," she says. "It's the fact that I can be me, which means that the feeling in the room is very different because now there are other people like me who operate the same way. It feels a lot warmer and more welcoming, with researchers giving me a hug and a kiss when we see each other, which you don't really get in academia."

Louise remembers when she received an email from a Māori-led research team that had concerns about not being able to complete the project on time. COVID-19 was at its peak and the kairangahau did not want to risk passing the virus to kaumātua. This meant that they couldn't do the



Ageing Well researchers gathered at an Ageing Well wānanga.

research project the way they envisaged when it was first funded, but they were worried about not being able to meet the agreed deadlines.

“They told me that they were having trouble engaging with kaumātua, because kaumātua were exhausted,” recalls Louise. “I just said I could see that everyone was exhausted and asked them, ‘should we reconsider the time frame?’. For them, that was a huge relief. They didn’t have to ask for it, it was already put on the table. That’s when they told me that they felt like they were really *understood*, as Māori.”

When the Challenge shifted from Phase One to Phase Two, David experienced first-hand what it means to work with grassroots communities with a shared goal to create change ‘on the ground’. He vividly remembers the feeling he got from attending the Kaumātua Services Providers Conference in 2018 and seeing what he calls real research engagement in action.

“It was a highlight for me because of the vibe, the manner of some of the people we were interacting with, the *kōrero*, and a great sense of community with a lot of singing, laughter, tears and so on,” he smiles. “I loved the *aroha* in the discussions and

how they said, ‘okay, we might not all get involved in this, but we’re glad to see it’s happening and we’re glad to see our people involved’. It was a great, uplifting experience to be part of.”

Occurring in our researcher communities was a powerful change of mindset, which took on a life of its own.

“Instead of research on ageing – it is research by, with and for our older communities,” explains Diane. “This includes hearing their voice in what needs to be researched, how it is conducted and importantly, implemented for impact in the community. This has been transformative.”

Louise adds, “All the Māori values that we live by are the things that we *absolutely* do live by, and it’s in how we consider our successes – they’re everyone’s successes. It’s these intangible things that have made the big difference for a lot of people.

“The Ageing Well whānau has shown that science can be done differently and deliver enduring impact for kaumātua and their whānau, particularly for communities that the science sector has previously not served.” ■

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