NZ TELEHEALTH
FORUM & RESOURCE CENTRE

FUNDER REPORT
September 2022

NZ TELEHEALTH
2012 **10** 2022
CELEBRATING 10 YEARS

Contents

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Who We Are

The NZ Telehealth Forum is a group which includes clinicians, consumers, policymakers, planning and funding managers, ICT experts and industry representatives. We were established as an expert advisory group to the Ministry of Health in 2012. We remain an advisory group.

OUR VISION

That telehealth is embedded across the health sector as an equitable and sustainable way to deliver healthcare in Aotearoa New Zealand.

OUR MISSION

To provide leadership in sustainable models of care enabled by telehealth that support equitable, patient-centered care.

TE TIRITI O WAITANGI

Commitment to the principles of Te Tiriti O Waitangi: Tino rangatiratanga, Equity, Active Protection, Options, and Partnerships.
This Funder Report coincides with the establishment of the new partnership model of Te Whatu Ora and Te Aka Whai Ora and the NZTF Leadership Group looks forward to embracing and utilising the opportunities this gives for partnership in practice.

OUR RESPONSIBILITIES

- To lead on telehealth matters
- To advocate for equity
- To create awareness
- To disseminate knowledge
- To facilitate adoption
- To establish connection

TELEHEALTH IS DEFINED AS:

Healthcare delivered using digital technology where participants may be separated by time and/or distance. It includes:

- Real-time
- Store and forward
- Remote patient monitoring
- mHealth (Mobile Health)

HIGHLIGHTS 2020-2022

Establishing organisational structure

Clarifying foundational pillars

Establishment of 14 Working Groups (WG)

Establishment of four Communities of Practice (COP)

Developing webinar series

Increase of resources available on Telehealth Resource Centre (TRC)

National Telehealth Register

Telemonitoring guidelines

Increasing membership to industry and consumers

PASE Whitepaper

Gained partnership support for project development

Rural telehealth research

Reaching 10th anniversary

NZTF papers published

Increase in adoption of telehealth and use of NZTRC resources

Telehealth Learning Modules

CHAIR REPORT

Nau mai, haere mai, malo and welcome to the 2020-2022 Funders Report.

The past two years have been remarkably busy for everyone in the health sector, and I would like to start our report by thanking all of those who have contributed to keeping our communities safe during the COVID pandemic. This time has been exceedingly stressful for everyone, and in particular for frontline healthcare workers, who have carried the extra burden of potential exposure to a new infectious illness, of which little was known initially. Over time we have seen our knowledge expand and a remarkable amount of progress made in reducing risk and burden from COVID, both in the knowledge of transmission, as well as vaccination, and in antiviral medications. Telehealth has played a pivotal role in supporting patients, their whānau and health workers stay safe and as an organisation we are proud to have supported the growth of telehealth over this time.

Through the COVID pandemic the NZ Telehealth Forum and Leadership Group has supported and grown our membership, and as a result grown our support of the wider community. Our members have contributed toward keeping communities safe within their own organisations, as well as spending the time to support others through the NZTF. For this, I thank them from the bottom of my heart. I recognise that all our members have worked significantly long hours and I also want to acknowledge our members whānau for their support. There is no doubt in my mind that none of us could have accomplished what we have without the support of our wider whānau. I hope that our members will share this report with their whānau and friends, and feel really very proud of what we have achieved.

The NZTF was uniquely placed with a diverse and skilled membership to actively support providers of healthcare to continue to deliver healthcare appropriately during the pandemic. Working closely with our Ministry of Health colleagues we have been able to support the rapid growth of telehealth throughout Aotearoa New Zealand and I think our members should be suitably proud of the achievements reflected in this report.

Finally, I hope that this report captures the imagination of what we can do next, as well as providing a good insight into the activities of the past two years. My favourite whakatauki over this time has been "tūwhitia te hopo, mairangatia te angitū!" which translates into "eliminate the negative, accentuate the positive" or more metaphorically "feel the fear and do it anyway!" Thank you to every one of you who has supported this mahi, who have felt that fear and enabled us together to work through those fears and deliver.

Ngā mihi nui,

Dr Ruth Large

HE TANGATA, HE TANGATA, HE TANGATA

We couldn't do what we do without the tireless work of our Leadership Team.

EXECUTIVE

- Chair: DR Ruth Large - Whakarongorau
- Dep Chair: Yariv Doron (stepped down Jan 2022) – Taranaki DHB
- Andrew Panckhurst – Mobile Health
- Charis Frethey – NZTLG & NZTF
- Craig Green – Hauora Tairāwhiti
- Davina Whitcher/Kayte Andrews – Mobile Health
- Darren Douglass – Health NZ

WORKING GROUP (WG) AND COMMUNITY OF PRACTICE (COP) CHAIRS

Executive plus:

- Amio Ikihele – Moana Research/University of Auckland
- Sasha Webb – Te Aho o Te Kahu
- Inga Hunter – Massey University
- Samuel Wong – VENSA/Digital Health Association/ HiNZ
- Richard Li - Te Whatu Ora | Hauora a Toi Bay of Plenty (previously Bay of Plenty DHB)
- Denise Irvine – e3 Health
- Jess White – Collaborative Aotearoa
- Nicole Redfern – Te Whatu Ora | Waitaha Canterbury (previously Canterbury DHB)
- Sarah Clarke – Te Whatu Ora | Te Tai Tokerau (previously Northland DHB)
- Linizi Birmingham – Nelson Bays Primary Health
- Lisa Livingstone – Bendigo Health

STRATEGIC ADVISORY BOARD (SAB)

Executive and Chairs plus:

- Alex Kemp – PricewaterhouseCoopers
- Chris Walsh – Health Quality Safety Commission
- Eileen Duddy – Ministry of Health
- Elizabeth Berryman - Chnnl
- Faustin Roman - Medical IT Advisors
- Grant Ardern – Western Bay of Plenty PHO
- Grant Templeman – Te Whatu Ora | Waikato (previously Waikato DHB)
- Janine Bycroft – Health Navigator
- Kanny Ooi – Medical Council of NZ
- Lucy Westbrooke – Te Whatu Ora | Te Toka Tumai Auckland (previously Auckland DHB)

STRATEGIC ADVISORY BOARD (SAB) continued...

- Lyn Clarke – Te Whatu Ora | Waikato (previously Waikato DHB)
- Phil Grady – Ministry of Health
- Robin Gauld – University of Otago
- Robyn Whittaker - Te Whatu Ora | Waitematā (previously Waitematā DHB)
- Roy Davidson – Te Whatu Ora | Te Tai Tokerau (previously Northland DHB)
- Ryl Jensen – Digital Health Association (formerly NZHiT)
- Samantha Murton – The Royal New Zealand College of General Practitioners (RNZCGP)
- Sarndrah Horsfall – Te Whatu Ora | Health New Zealand
- Steven Earnshaw – Te Whatu Ora | Capital Coast and Hutt Valley (previously Capital and Coast DHB)

Special thanks also to:

- All Group members. The time given to projects, discussions, networking has made what we do possible.
- Jean Fleming, for the generous sharing of knowledge on the interim NZ Health Plan
- The Ministry of Health (MoH), in particular the Data and Digital Team

STRATEGIC REFRESH

The Strategic Refresh sessions were as extension of a regular two-yearly review of the Terms of Reference for the New Zealand Telehealth Leadership Group (NZTLG) and New Zealand Telehealth Forum (NZTF). At the time (end-2020) it was clear that due to the COVID pandemic response greatly increasing the demand for telehealth service delivery and subsequently resources and guidelines, there was a need to clarify priorities and structure work programmes. The intention of the sessions were as follows:

- Consider how to better meet external demand on the organisation
- Find methods for ensuring organisational sustainability
- Identify methods for growth, and in what direction was most desirable/necessary
- Identify how to improve the variability of access to and quality of healthcare delivery by telehealth
- Advocate for digital inclusion
- Clarify strategic pillars: Mission, Vision, Objectives, Deliverables, etc.

The sessions were run over 30th October 2020 - 16th November 2020. Invited members were from the Strategic Advisory Board (SAB) of the NZTLG.

ORGANISATIONAL STRUCTURE

The NZTF is in its second decade, providing support and advice to the Ministry of Health (MoH) (via the Data and Digital Team) and healthcare providers across the sector. We provide leadership, knowledge and create awareness in all things telehealth; for example clinical and safety requirements, security, technology and data standards.

The NZTF is primarily a volunteer organisation, and includes people from across the health sector. All members have extensive experience and expertise in telehealth, technology, health administration or healthcare. The group consists of Clinicians (doctors, nurses, midwives and allied health professionals), Technologists, Programme Managers and representatives from MCNZ, RNZCGP, MoH, HQSC, ACEM, NZHiT, DHB CFOs and CIOs and GPNZ. This membership base has grown to include: clinicians, professionals, internationals, industry and consumers.

Te Whatu Ora
Health New Zealand

NEW ZEALAND TELEHEALTH FORUM

NZ Telehealth Leadership Group
(Includes: Executive, Working Group Chairs and Strategic Advisory Board)

Special Projects

Partnerships/ Strategic Partnerships

NZTF Working Groups

NZTF Community of Practice

NZTF General Members
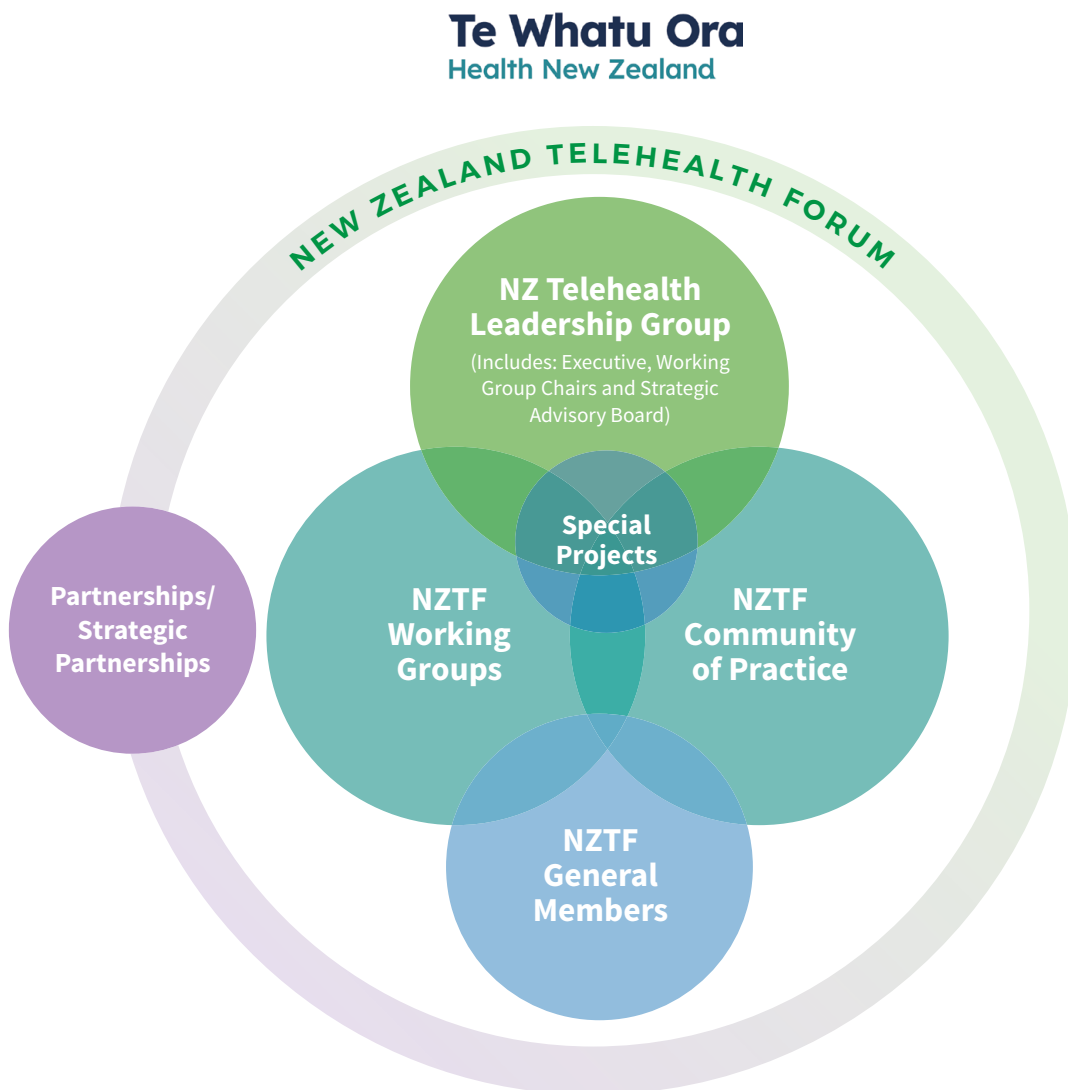
STRATEGIC OBJECTIVES

Strategic Objectives defined during the session were identified as follows:

- To leverage the current interest in telehealth, and to lead sector wide adoption of telehealth as a safe and efficient way to deliver healthcare
- Ensure that telehealth is on the agenda for national/regional strategies
- Build capability by removing barriers and promoting centres of excellence
- Building awareness and education in DHBs, PHOs, GPs and NGOs
- Promoting the value proposition of telehealth/virtual health as an enabler of healthcare delivery
- Promoting equity of access and outcome
- Support the delivery of healthcare closer to home.

ROLES & RESPONSIBILITIES

Key Roles of the NZTF were defined as follows:

1. To Create Awareness:

- Identify and promote the role of telehealth services in helping to address the challenges faced by the NZ health sector, including equitable access to health care
- Educate and encourage clinical, policy and funding organisations' active support for and involvement in telehealth initiatives
- Empower consumers to ask for telehealth.

2. To Disseminate Knowledge

- Identify the enablers, issues, and barriers to adoption and seek to support relevant stakeholders/community to address these
- Act as a clearing house for available resources and to support the building of business cases for the use of telehealth.

3. To Lead on Telehealth Matters

- Drive a cohesive national approach; to ensure that standards are developed and adopted
- Drive telehealth systems that meet interconnectivity and interoperability standards
- Drive a national telehealth approach aligned to the National digital health strategy.
- Advise MoH on telehealth requirements and priorities
- Lead media engagement for health sector in telehealth/virtual health matters.

4. To Facilitate Adoption

- Promote specific (1) initiatives and new and emerging (2) models of care that use telehealth and demonstrate their impact on the health system
- Develop collaborations with national and international healthcare organisations to adopt and adapt their telehealth experience.

5. To Establish Connection

- Promote and enable the creation of centres of excellence in the use of telehealth

- Industry Partners

- Create a community of telehealth professionals within Aotearoa New Zealand, networking, and support.

6. To Advocate for Equity

- Partnership approach

- Utilise co-design methodologies

TE TIRITI O WAITANGI

The work of the NZTLG and NZTF will be guided by the following principles:

- Tino rangatiratanga, which provides for Māori self-determination and mana motuhake meaning that Māori are key decision makers in the design, delivery, and monitoring of telehealth

- Equity, which means the work of NZTLG and NZTF will be focused on achieving equitable health outcomes for Māori

- Active protection, which means the NZTLG and NZTF will act to protect Māori health and achieve equitable health outcomes for Māori

- Options, which means the NZTLG and NZTF will include Kaupapa Māori health and disability services

- Partnership - the NZTLG and NZTF will work in partnership in the governance, design, delivery, and monitoring of telehealth.
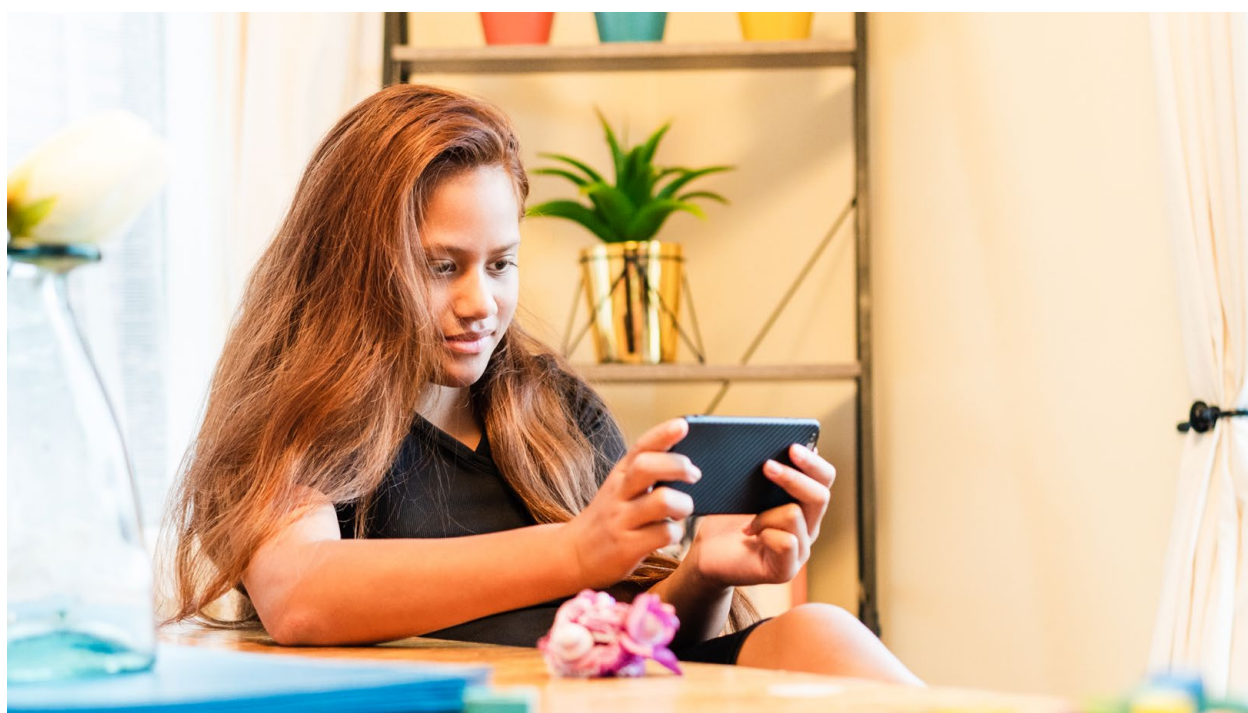
TELEHEALTH RESOURCE CENTRE

The Telehealth Resource Centre provides support and advice to providers looking to introduce or grow their telehealth services.

WEBINARS
EDUCATIONAL RESOURCES
### STOCK PHOTOS
HISTORY OF TELEHEALTH
NEWS AND UPDATES

WEBINARS

The NZTF continue to host a series of webinars to help support providers who are implementing telehealth services such as phone or video consultations. These webinars assist providers in achieving safe, secure and sustainable telehealth solutions which complement their existing in-person relationships.

The following webinars were held from 2020-2022:

- Webinar #26: Lessons Learnt and Highlights – Community Telehealth Initiatives
- Webinar #25: Zoom fatigue 'take two'
- Webinar #24: Disability and telehealth 'take two'
- Webinar #23: Introduction to telehealth in cancer care
- Webinar #22: What does telehealth look like in 2022 for primary care?
- Webinar #21: New and emerging healthcare innovation
- Webinar #20: Telemonitoring
- Webinar #19: Improving Māori health gains
- Webinar #18: Telehealth in the disability community
- Webinar #16: Telehealth providers
- Webinar #15: Mental health
- Webinar #14: Telehealth international leaders
- Webinar #13: Telehealth in primary and community settings
- Webinar #12: Back to basics
- Webinar #11: What I learnt in 2020
- Webinar #10: Allied health
- Webinar #9: And then COVID-19 happened… an update on the national Health Information Platform
- Webinar #8: Scotland telehealth
- Webinar #7: Using telehealth for cancer care during COVID-19
- Webinar #6: Ontario Telehealth Network
- Webinar #5: Health literacy - getting the most from telehealth
- Webinar #4: NZ regulation and legislation
- Webinar #3: Telehealth technology
- Webinar #2: Equity and improving access
- Webinar #1: An introduction to telehealth for NZ health providers
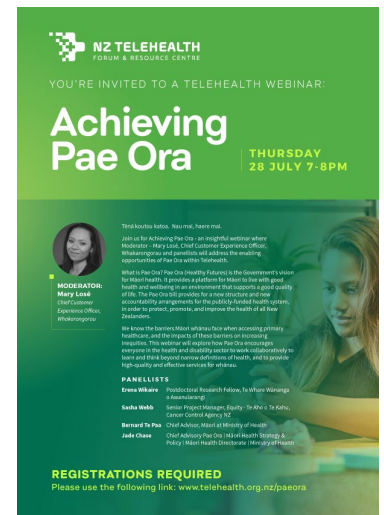
PARTNERSHIPS

The NZTF are always looking to build relevant linkages throughout the sector. Primarily, we are looking to develop partnerships that focus on specific collaborations. In this way, the relationship is strengthened by shared goals and set outcomes.

Some examples of these relationships include: NZ Health IT's Virtual Health Industry Group (VHIG); National Allied Health Scientific, Technology Informatics Group (NAHSTIG); and Royal New Zealand College of General Practitioners (RNZCGP).

Further information can be found here: https://www.telehealth.org.nz/telehealth-forum/partners/

We would like to thank our partners:

- Mobile Health
- Collaborative Aotearoa
- Te Aho o te Kahu
- Massey University
- Moana Research
- Digital Health Association (DHA)
- Clinical Informatics Leadership Network (CiLN)

- Health Informatics New Zealand (HiNZ)
- The Royal NZ College of General Practitioners (RNZCGP)
- NZ Medical Council
- Council of Medical Colleges
- Health Quality & Safety Commission New Zealand (HQSC)
- Tu Ora Compass (for telehealth teaching materials)

BUILDING A COMMUNITY

Since the start of the COVID pandemic, the NZTF have quickly increased our support of clinicians and telehealth professionals across the county in primary, secondary, tertiary and community care to supply healthcare safely by video. This support has taken the form of direct advice, webinars, resources (available: www.telehealth.org.nz) and assisting the Ministry of Health (MoH), the Medical Council of New Zealand (MCNZ) and other organisations with advice to remove barriers, for example, the prohibitive prescribing legislation which requires signatures on all prescriptions. The NZTLG actively participate in MoH activities such as the Digital Enablement Oversight Group. Currently we provide the following support:

Presentations/education/troubleshooting:

- To our members at any of the Working Groups/Community of Practice.
- At our whole of organisation hui
- At our Strategic Advisory Board hui
- Webinars.

Wider communications:

- Inclusion in our newsletter
- Dissemination to our wider networks
- Facilitation in specific group hui.

WHO ARE OUR MEMBERS?

We have a range of members from across the sector. Most members (34%) work within the secondary healthcare space, either in a Te Whatu Ora | Health New Zealand (previously DHBs) or the health partnership designed to support Te Whatu Ora | Health New Zealand (e.g., Te Manawa Taki; SIAPO etc). This is followed closely by primary and community care (28%) and growing numbers of Industry and International colleagues at 10% and 8%, respectively. Members from the research sector make up approximately 10% of our membership, but like industry this is growing to support the increasing investment in evidence for digital health literacy, equity, and workforce technologies.
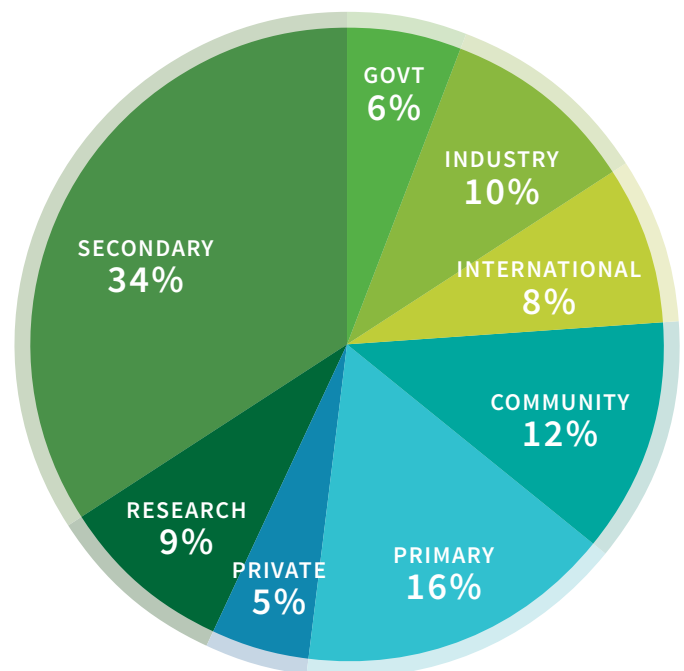
COMMUNITIES OF PRACTICE (COP)

Many organisations have supported a full-time or part-time position to focus on the development and promotion of telehealth within their organisation or region. While each role varies significantly, our Communities of Practice (COP) are peer groups where members can support each other in their roles, and discuss ideas.

There are four Community of Practice:

- Telehealth Professionals
- Telehealth Internationals
- Telehealth Clinicians
- Digital Enablers.

Telehealth Professionals

In mid-2021 this COP was formed by the merger of the Programme Managers and Primary Care working groups. This group provides a safe environment for telehealth professionals from across the sector who are supporting telehealth as a mode of healthcare delivery. The group draws upon evidence-based practice to support their decisions and actions. The focus of this CoP is to:

- build sector telehealth professionals' capability, identify and support solutions to sector operational issues and challenges
- support sector-wide telehealth implementation, evaluation and monitoring
- reduce duplication of effort by sharing initiatives and resources on the NZTF register
- encourage and support collaboration

Telehealth Internationals

This group is in development in response to international interest in growing an International CoP. To date this includes New South Wales and Israeli colleagues and an International Telehealth in Emergency Medicine CoP.

Telehealth Clinicians

This CoP has been formed from the Primary and Integrated Care Working Group as it was identified that there was a need to provide networking for clinicians across the healthcare sector. This CoP aims to support telehealth clinicians, develop ideas and pass on action points to other WGs.

Digital Enablers

The COP will provide leadership relating to digital enablement and telehealth. They will promote and advocate for best practice while also identifying opportunities where national leadership can overcome barriers and increase telehealth adoption. The group will create awareness, sharing and promoting positive digital enablement examples in telehealth and share knowledge in areas including:

- Software products and solutions used to support telehealth in Aotearoa New Zealand
- Hardware products including phone, tablet, computer and peripherals (technical and clinical)
- Security and privacy requirements for telehealth
- Connectivity required to facilitate telehealth

WORKING GROUPS (WG)

Currently there are nine Working Groups (WG). These are:

- Cancer
- Data Standards
- Digital Health Equity Reference Group
- Engaging Consumers (under development)
- Mental Health & Addiction
- Research, Audit & Evaluation
- Patients Anywhere, Specialist Elsewhere (PASE)
- Policy (under development)
- Student Chapter (under development)

Each group has a special character and is focused on objectives related to telehealth.

WG work on achieving defined projects. WG have a focus on action.

Membership for WG is skill-focused, with most groups open to those with relevant skills and experience, and a willingness to volunteer their time on telehealth projects.

Working group	Description
Cancer	To identify, support and advocate for the inclusion of telehealth as a mode of delivery for cancer services.
Data Standards	Considers the technical specifications that describe how data should be collected, counted, stored, used and understood. There is an intent to share guidelines that are developed externally, contribute to national and regional data standard initiative/programmes and lead on specific targeted projects.
Digital Health Equity Reference Group	The Digital Health Equity Reference Group provides advice to the NZ Telehealth Forum and the Ministry of Health on matters of importance to digital health equity in New Zealand, particularly around equity concerns related to digital and data, ensuring the MoH and NZ Telehealth Forum promotes the highest standard of health in New Zealand Aotearoa for Māori and priority population groups (Pacific, disabled, elderly, people living in low socioeconomic areas.)
Mental Health & Addiction	The role of this group is to support the uptake and sustainability of telehealth in the mental health and addictions sector.

Research Audit & Evaluation	Broadly, supporting the establishment of telehealth as a viable, sustainable, equitable method of healthcare delivery within Aotearoa New Zealand. We aim to:
	• Operate as a clearing house for telehealth research, audits and evaluations – to collate, and curate existing and future research, audits and evaluations
	• Advocate for transparent sharing of grey literature, health sector organisation and industry partner reports to make their findings known to the rest of the health sector
	• Provide advice about gaps in evidence-based research in telehealth
	• Advocate that telehealth decisions be evidence-based and equity focussed
	• Advocate evaluation of all telehealth projects
	• Develop innovative sector partnerships using the strength of NZTF membership.
Special Projects	Any projects that fall outside of the scope of our Working Groups (WG). These are time-bound project focused groups, with set aims and clear deliverables.

PROJECTS - COMPLETED

NATIONAL TELEHEALTH REGISTER

DESCRIPTION

The NZTF launched a National Telehealth Register (NTR) at the beginning of 2021 to collate and disseminate information on current or completed work undertaken on telehealth. The clearing house covers a wide range of topics including, but not limited to projects, resources, research, policies, procedures, and consumer facing resources, such as telehealth information, FAQ and support materials.

The register has more than 100 items, focused on grey literature. This continues to grow, with projects continuing to populate the searchable web-based library.

BUDGET

Assigned Project Funding: Nil

Funder	Resource contribution
Ministry of Health - Data + Digital	FTE, website development
NZ Telehealth Forum	Volunteer hours - design, review, input
Massey University	Time
University of Auckland	Internship

TIMEFRAME

The NTR is continuing to be populated. It is a living resource so will continue to develop in value as the resources increase.

CURRENT WORK

We will be analysing the registered data and presenting on this late 2022.

RURAL HEALTH

DESCRIPTION

The Rural Smart Health (RSH) project used a collaborative approach with academia (Massey University), the health sector (NZ Telehealth Forum) and industry (Vensa Health and other commercial partners) to explore how telehealth could be used by rural older adult underserved communities. Participants included rural adults 55+ years, living in the selected communities, able to consent and willing to participate. A total of 98 participants were included through seven focus groups and 25 interviews across four rural regions (Manawatū, Waikato, Northland and Golden Bay).

Two key themes that emerged from data analysis were Trust and Choice, each with three sub-themes. Equity sits across all the themes and sub-themes.

The completed published paper of the project can be found here: https://preprints.jmir.org/preprint/35864

Participant quotes

TRUST	CHOICE
You would want the reassurance to know that it was going to work (Golden Bay)	*Choice is important, cheques were discontinued, we had no choice (Manawatu)*

A lot of the older guys can't text, some have phones others don't even have phones. They're not very tech savvy at all. (Northland)

You often find that the doctor says you better come in and see me and you think couldn't we have done it by telehealth? (Manawatū)

To get the same GP you have to book one a month ahead (Golden Bay)

Because a lot of our whānau once it's out of our comfort zone... they feel uncomfortable. (Northland)

Satellite costs $700 to set up and $200 per month to run, connectivity is still poor or variable during the day if a number of people are using it. (Waikato)

I would be happy to check in to the medical centre via video to make the check-ins six monthly rather than three monthly, for some things (repeat prescription). (Golden Bay)

BUDGET

Assigned Project Funding: Nil

Funder	Resource contribution
Massey University	Led, designed, developed.
VENSA	Funding

Enablers and Benefits of Telehealth

Enablers for telehealth	Benefits of using telehealth
Collaborate with rural communities to determine how best to enable telehealth for that community	Equity of access to health care
Culturally safe	Increased ability to access healthcare from a health care provider of your choice
Trust in the telehealth technology	Improved service coordination
Flexible to individual/community needs with a range of digital technologies that enable telehealth (not just phone)	Access to a wider range of health services
Easy to access	Reduced travel expenses
Easy to use	Less travel
Choice about using telehealth or not to access health care	Reduced time off work/away from home
Providing support to users	Reduced waiting times
Training in different modes available	Earlier access to health care
Access to wider range of services including non-health services	Same level of care as any other New Zealander

LEARNING MODULES

DESCRIPTION

The NZTRC has been supporting Healthcare Home National Collaborative to design and develop Telehealth Learning Modules. The objective of the learning modules is to allow clinicians to increase their confidence and capability in setting up and conducting effective culturally appropriate telehealth consultations.

The content is sector agnostic and can be undertaken in palatable, interactive learning blocks as and when is suitable for the user. Modules attract MOPs/CME points for modules completed.

The modules were launched in 2022 and integrate with the MoH online learning platform. The modules can be completed here: https://learnonline.health.nz/admin/tool/sitepolicy/userpolicy.php
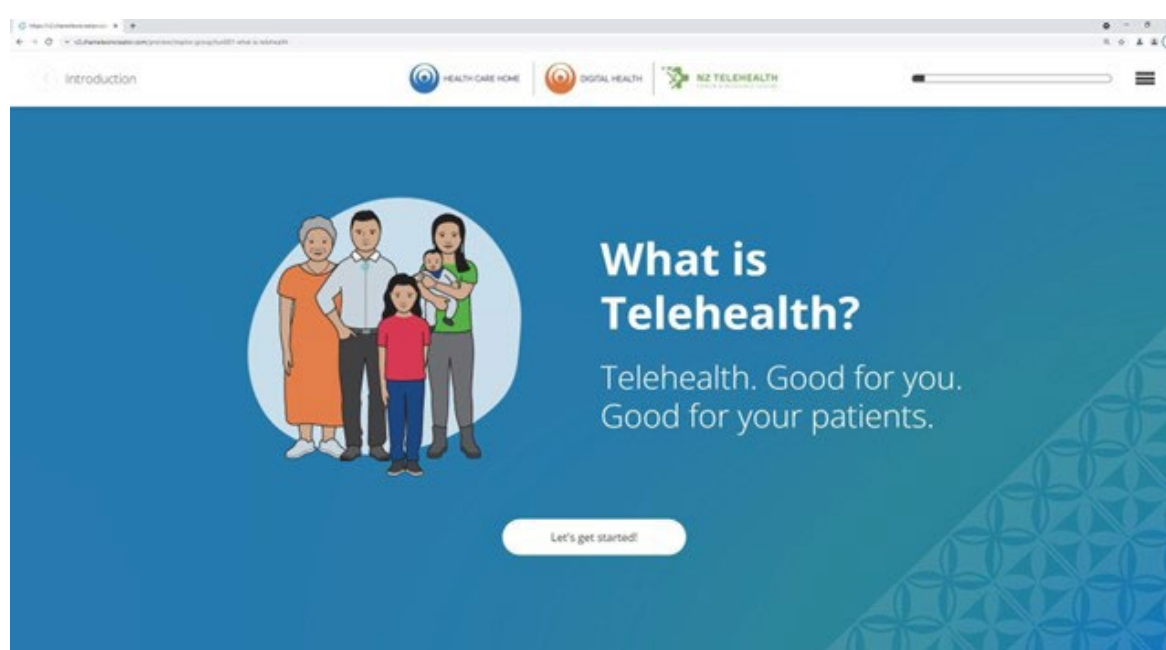
BUDGET

Assigned Project Funding:
Project funding from external partner/s

Funder	Resource contribution
Collaborative Aotearoa	Funded and led
Mobile Health	Funding and resource

PASE WHITEPAPER

DESCRIPTION

The Patient Anywhere, Specialist Elsewhere (PASE) model is a "passion project" for us in the NZTLG, something that we have been talking about for a while and at times has felt like tilting at windmills. We know that "virtual" hospitals are growing throughout the world and there has never been a better time to have this conversation in Aotearoa New Zealand. With the improvements in technology capability and connectivity alongside the potential for national appointment booking capacity, a shared electronic record (Hira) and a national employer, we need to rethink how we deliver services. Currently patients are limited to services that are supplied in their region, thus if there is an absence of a child/adolescent psychiatrist, for example, or your only stroke physician is on leave, then getting access to these services is difficult. In addition, it can be difficult for some clinicians to take leave without adequate leave cover provided. Added to this, the ever-increasing range of illness and treatment and sub-specialty development within nursing, allied health and medical fields means that generalists often need some back-up from specialist clinicians.

Whilst telehealth cannot and should not be a panacea for workforce shortage, it can enable some clinicians to continue to work where there are physical barriers as well as augmenting care to enable others to work at top of scope. It can also allow clinicians to practice in a remote setting that would otherwise be difficult to get to, or to live in an area they desire yet still deliver services elsewhere. It also enables shared care where, for example, clinicians such as specialist GPs can consult with inpatient specialists with the patient in the room. Other advantages include supporting nurse practitioners and rural outreach clinics, as well as rural and regional healthcare providers.

The concept of PASE has been developed as where the 'right care' can be provided at the 'right time'. The concept relies on a national employer and rostering ability and can be imagined as a hospital in the cloud which is not reliant on bricks and mortar. A NZTF webinar on this theme was held on August 25th.
The recording of the webinar is available to view at www.telehealth.org.nz/webinars/
The PASE whitepaper is available at www.telehealth.org.nz/telehealth-forum/submission/pase/

BUDGET

Assigned Project Funding: Nil

Funder	Resource contribution
Massey University	Writing support and literature review

TIMEFRAME

Paper one was released in April 2022.

NEXT STEPS

Following consultation with NZTF members, we are seeking high levels of support to take the vision to a design level.

MAPPING DIGITAL HEALTH EQUITY

DESCRIPTION

Digital health is the use of digital technologies to improve healthcare. This includes digital health technologies such as virtual care, mobile health, and telemedicine. To benefit from digital technology, patients need to be digitally included and digitally literate. However, there are people who are less likely to use digital technologies due to lack of digital inclusion and digital literacy.

This student-led project aimed to determine how digital health equity is being addressed and implemented.

Research questions:

- How is digital health equity defined?

- What frameworks are being used to address digital health equity?

- Which organisations in Aotearoa New Zealand are addressing digital health equity?

Digital Health Equity

MOANARESEARCH   NZ TELEHEALTH   THE UNIVERSITY OF AUCKLAND NEW ZEALAND   AUCKLAND BIOENGINEERING INSTITUTE

Aim: To determine how digital health equity is being addressed and implemented

Questions:
- How is digital health equity defined?
- What frameworks are being used to address digital health equity?
- How are organisations in New Zealand addressing digital health equity?

Background
Digital health is the use of digital technologies to improve health care [1]. This includes digital health technologies such as virtual care, mobile health and telemedicine [2]. To benefit from digital technology, patients need to be digitally included and digitally literate.
However, there are people who are less likely to use digital health technologies due to lack of digital inclusion and digital literacy.

Methods
To find concise definitions and frameworks of digital health equity, a number of databases were searched. This included Ovid, Google Scholar, PubMed, Medline and Scopus. Search terms were 'digital health equity' and then more specifically, 'digital health equity' AND 'indigenous'. Publications from 2019-2022 were included in the search.
To find organisations that address digital health equity, the key terms used to search Google were 'digital equity NZ organisations', 'digital health NZ', 'digital health equity organisations', and 'digital literacy NZ'.

Results
Digital Health Equity definition
5 out of 29 articles gave a definition of digital health equity and these are the main themes:
- Equal access and use of digital technologies for healthcare, as well as equal outcomes with the use of digital health [1,3,4,5]
- Provide patient-centered digital health solutions by training professionals to adapt to unique situations [1,3]
- Designing, developing and implementing digital health strategies that cater to the whole population by including people from underserved populations [1,3,6]
- Assessing and evaluating digital health strategies and their outcomes to improve access, use and outcomes [1,3]

Organisations
The organisations that were found [Appendix 1] address digital equity issues such as digital inclusion and digital literacy, by providing digital technologies and digital literacy education through community-based programmes/courses. This is also beneficial for digital health equity.

Frameworks
Key points from frameworks for different sectors. A total of 28 frameworks were found and these are the main points:

Sector	Fundamentals
Individuals	- digital inclusion (access, literacy, skills, accessibility)
Health care providers	- digitally trained (upskilling workforce); representativeness (workforce diversity)
Community	- partnership with industry; programmes for digital skills and literacy
Industry	- partnership with communities; develop culturally appropriate interventions; affordable prices
Government	- regulation for digital health interventions; community programmes adequately resourced

Conclusion
Currently, there are no frameworks for digital health equity in New Zealand. The international evidence also notes an exclusion of whanau and family as a focus. This information can be used as a basis to form a framework for digital health equity that is relevant to New Zealand and Te Tiriti O Waitangi principles. There were a number of organisations that address digital equity, but very few address digital health equity. More research may be needed in order to develop a framework and improve the way digital health equity is being addressed in New Zealand.

References and Appendix

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Special thanks to my supervisors: Amio Matenga Ikihele and Charis Frethey

BUDGET

Assigned Project Funding: Nil

Funder	Resource contribution
University of Auckland	Summer student stipend
NZTF	Volunteer supervisor hours
Moana Research	Volunteer supervisor hours

NEXT STEPS

This research is being furthered to support the integration of Digital Health Equity (DHE) into the design of projects related to health technology. We are exploring partners, funding models, support for the development of a process that encourages and demystifies the inclusion of an DHE mindset into a body of work.

REMOTE PATIENT MONITORING GUIDELINES

DESCRIPTION

This telemonitoring practice guide was created with the intended audience of New Zealand healthcare providers looking to implement telemonitoring solutions for Remote Patient Monitoring (RPM). It is developed from experience and guidance from members of the Virtual Health Industry Group (VHIG) within the NZ Health IT (NZHIT) cluster, in collaboration with the NZTLG.

Telemonitoring is one of the virtual healthcare delivery methods that involves the use of information technology to monitor patients at a distance. The range of telemonitoring service capability can be as simple as a falls pendant and services provided under Telecare Services Association of New Zealand (TSANZ), all the way through to immersive virtual reality monitoring of physiological and neurological components. The monitoring can be managed by commercial monitoring agencies, private care providers, public healthcare, GPs, the patient's family or self-monitored using apps and logs. It is noted that most devices being introduced should be Medsafe/Therapeutic Goods Administration (TGA) approved or working towards compliance.

BUDGET

Assigned Project Funding: Nil

Funder	Resource contribution
Virtual Health Industry Group (VHIG)	Funded: Led, designed, developed
NZTF	Volunteer review hours

PROJECTS UNDERWAY

NAVIGATING DIGITAL HEALTH EQUITY

DESCRIPTION

Working title: Mapping and navigating the digital health equity landscape.

Currently, we are creating a process for guiding organisations through the many new Digital Health Equity organisations and frameworks that have been developed over the COVID period. We believe that this will have national significance and can aid groups in aligning to new models of project and organisational development that incorporate Te Ao Māori, aligning with the health reforms.

We are looking to design a flowchart or 'navigation' process to guide groups through the process as we aim to ensure that we do not leave people behind. This will be a "hand-holding" process for external organisation and projects. We are exploring options to deliver this service, once we have completed alpha and beta testing internally to NZTF.

Key tasks underway are:

- Identify definitions of digital health equity (DHE)
- Identify indigenous DHE frameworks
- Stocktake organisations in the DHE sector
- Stocktake DHE frameworks
- Underway now - stocktake Māori/Pasifika designed telehealth resources – nationwide
- Design a navigational process for moving groups/projects through and ensuring they have DHE embedded.

BUDGET

Assigned Project Funding: Nil

Telehealth in Hospital Care Survey

DESCRIPTION

Previous longitudinal DHB surveys have been undertaken in 2014 and 2019. We intend to increase the frequency of this to bi-annually. Previously this has been a census/snapshot in a time of healthcare delivered via telehealth, including capturing relevant technologies. However, we have made the move to a survey that has input from key stakeholders (telehealth professionals; clinicians; relevant govt agencies). Our intention is to deliver meaningful, robust and high-quality evidence to assist in decision making at all levels, including identifying barriers, facilitators to adoption, show-casing high-performance models, signalling inequity, and providing awareness of where resource is needed for deployment.

Of particular interest is the intended health reforms. While we are aware that there is a planned transition of five years, we are keen to gather evidence on the barriers and enablers to integration. We intend to gather baseline data in this first survey – identifying where there are challenges and facilitators from the healthcare system and then seek to identify insights into how these could be addressed. A/Prof Hunter the project lead, suggests we incorporate interviews with key stakeholders in these organisations and the community. This would provide

significant insights into the details of barriers and enablers.

Currently, the survey is in two parts. These are:

- Survey 1: IS/IT department review of each hospital. This includes: technologies, governance, barriers, innovations, performance indicators, benefits, infrastructure, etc.

- Survey 2: Clinical department review. This has an overview of all departments and then narrows down to specific departments for more depth. These have included the following: Adult and Women's health; Allied Health; Ambulance and Clinical; Mental Health; Paediatrics. This will be increased to include Cancer Services.

Access to previously published reports are available here: https://www.telehealth.org.nz/telehealth-forum/submissions/

BUDGET

Assigned Project Funding: Nil

Funder	Resource contribution
Massey University	- Time, design, software, data collection, analysis, write up - Research Assistant funding
NZ Telehealth Forum (NZTF)	Volunteer review hours

TIMEFRAME

The stocktake is currently undergoing locality review. Data collection is now planned for September due to delays from COVID, the flu, the health reforms and the need to get 20 individual locality approvals.

CANCER SURVEY

DESCRIPTION

This is an oncology specific survey, delving into the use of digital technologies to support cancer patients nationally. While it falls into the previously discussed surveys category, it is a separately funded project, intended to support the knowledge of Te Aho o Te Kahu in understanding how telehealth is used to deliver care.

BUDGET

Assigned Project Funding: Nil

Funder	Resource contribution
Massey University	• Time, design, software, data collection, analysis, write-up • Research Assistant funding
Te Aho o Te Kahu	Funding

TIMEFRAME

Currently undergoing locality review.

MAPPING TELEHEALTH CONSUMER RESOURCES

DESCRIPTION

Working title: Mapping telehealth resources available to New Zealand consumers/patients (with a focus on the cancer pathway).

Identification and collation of telehealth focused consumer resources, with particular emphasis on:

- DHB and community organisations
- Resources for Māori (and in Te Reo)
- Resource for Pasifika
- Resources specific to the cancer pathway
- Video based resources.

The project:

- Sourced any and all available resources
- Critically appraised each resource and categorised them into themes.

BUDGET

Assigned Project Funding: Nil

Funder	Resource contribution
University of Auckland	Intern student (60 hours)
NZ Telehealth Forum (NZTF)	Supervisor hours
Te Aho o Te Kahu	Volunteer supervisor hours

TIMEFRAME

Project completed in May 2022.

REPORTING ON TELEHEALTH OUTPATIENT APPOINTMENTS

DESCRIPTION

The NZTF have been in talks with the MoH regarding the availability of national telehealth dashboard data. We would like to be able to up-date this bi-monthly and have clear visibility to which areas, sub-specialities and/or localities have adopted telehealth. It would also provide a mechanism to showcase successes, facilitate redirection of resources to challenged areas, highlight equity statistics in the system and across broad patient characteristics.

We have secured approval to publish this data in static images. The reporting framework has been set and permission has been given to Mobile Health to view this data. We are awaiting access to this data to publish on the TRC.

BUDGET

Funder	Resource contribution
NZTF	• Time • Website

TIMEFRAME

Project completed in May 2022.

COMMON COUNTING STANDARDS

DESCRIPTION

The Data Standards Working Group are exploring opportunities to improve the data quality of the National Non-Admitted Patient Collection (NNPAC) dataset. To date, there have been several consultative meetings that have explored the short-comings of existing measures, and how these could be improved to provide more accurate and comprehensive information about the telehealth consultation.

All recommendations will be provided directly to the MoH team (led by Angela Pidd) to inform the Current Counting Standards to facilitate National change.

Enhancements to national collections have been agreed for the next release that helps record when patients did not connect as opposed to did not attend.

BUDGET

Assigned Project Funding: Nil

TIMEFRAME

Consultation is on-going

TELEHEALTH PREMS/PROMS + CLINICAL OUTCOMES MEASURES

DESCRIPTION

Development of Patient Reported Outcome/Experience Measures specific to telehealth. This has been absent from our current landscape, although some organisations have developed these in isolation. This will be valuable in our ability to audit and evaluate our digital interventions as they are rolled out and ensure that we are adequately meeting needs.

BUDGET

Assigned Project Funding: Nil

MAPPING THE CONSUMER DIGITAL LITERACY LANDSCAPE

DESCRIPTION

The creation of a directory of organisations and projects that exist to support the increase of digital literacy in our communities. This will straddle the same work investigating the support for the upskilling of the workforce.

WHERE TO FROM HERE

This table summarises how the NZTF Stategic Initiatives and high-level deliverables align with the iterim priorities of Te Whatu Ora Data and Digital.

Strategic objectives	To leverage the current interest in telehealth, and to lead sector wide adoption of telehealth as a safe and efficient way to deliver healthcare	Ensure that telehealth is on the agenda for national/ regional strategies	Build capability by removing barriers and promoting centres of excellence	Building awareness and education in DHBs, PHOs, GPs and NGOs	Promoting the value proposition of telehealth/ virtual health as an enabler of healthcare delivery	Promoting equity of access and outcome	Support the delivery of healthcare closer to home.
STRATEGIC INITIATIVES: HIGH-LEVEL DELIVERABLES							
Organisational goals	NZTLG and NZTH Forum continue to be leaders of TH	Innovative business model adopted with support of MoH for growth					
Wider health system adoption of digital technology	Nationwide TH promotion programme - that embraces/celebrates TH as an efficient, safe and effective means of delivering quality healthcare.		Adoption levels: Telehealth makes up >10% of all consultations delivered nationally	National comms and resources for uptake and sustainability of TH use in healthcare delivery		Increased uptake of TH across equity hot spots/sites of inequity	Increase resources designed to facilitate use of telehealth
Trusted and secure health information	Distinction between TLG support technology/ hardware vs TLG supports clinical adoption of the TH space.			Registration of all work nationally, undertaken on TH	Understanding the impacts of Māori Data Sovereignty - access to governance and control over Māori Data.		
Uplifted digital maturity across the system	Embed change to BAU				Agreeing/ expanding data standards with reference to work already advanced overseas.	Partnering to achieve outcomes - e.g., telecom providers; Marae; Community orgs; Healthcare providers; etc	
Modern health intelligence functions			National standards in five areas: mode of consultation; TH devices, services and mechanisms that generate data; clinical findings generated by virtual or device; PROMs/ effectiveness; and CEOMs.				

D&D KEY PRIORITIES AND ACTIONS							
Digital empowerment for consumers and whanau					Increasing awareness of the range of TH support available for patients, whanau and across the workforce.	Identifying where the inequities are. Addressing inequity across New Zealand	Partnership relationship with Maori: Collaboration in defining data standards; TH delivery of care that is patient centred and closer to home.
Digital enablement of the workforce			Increase links to educational institutions; Promotion of curriculum updates in med/nursing/health faculties.		Increasing awareness of the range of TH support available for patients, whanau and across the workforce.		Increased options for clinicians, non-clinical, and consumers
Delivering the care settings for the future		Strategic projects designed and led by NZTLG and/or NZTH Forum WGs, e.g., competency, research, clinical guidelines, etc				Access to no-cost websites and devices to most vulnerable	
Strategic partnerships with the digital health industry		Key partnership relationships continue to be developed between Ministry, primary care, secondary care and Iwi providers.	Partnerships formalised within new and existing relationships.	Plan developed to consider areas of growth in partnerships/ strategic partnerships, collaborative groups.			
Innovation amplified across the health system			Celebrate the successes already delivered by TH; leverage off the momentum gained through C-19 as a proof of concept; and leverage off the strong support shown by the Ministry.				Access to fit for purpose devices to adequately advance tele-monitoring.

The figure on page 32 and 33 shows an aspirational roadmap. The text without circles show projects that have been completed. The blue circles are works in progress or planned, and the yellow circles are project opportunities, or needs that have been identified.

The NZTF brings together sector leadership in the application of digital health technologies and policy, standards, and guideline development as well as leading researchers, data analysts and equity analysts. The NZTF believes it has a lot to offer in wider adoption of digital technology, not just advising on, but also leading, where funded, implementation projects at the national, regional, and local levels.

NZTF Aspirational Roadmap

Clinicians

Digital
Enablers

Establish
working
group

Directory of
consumer
organisations re
DHL

Ethical
Framework
for
telehealth

...unity of
...ctice

**Engaging
Consumers**

Exploring
video and
phone use in
general
practice:
considerations
for future
telehealth

NZTF DHB
Survey

...ate
...ness

History of
NZTLG

To
Disseminate
Knowledge

**Research, Audit
and Evaluation**

National
Telehealth
Register

Telehealth as a
model for
health care
delivery for
underserved
populations

Computer
& clinical
peripherals

...ealand
...n Forum &
...ip Group

Data Standards

Common Counting
Standards

Patient
reported
outcome
measures:
PROMS
PREMS

Data
generation

To Lead on
Telehealth
Matters

Virtual/
device
Clinical
findings

Clinical
outcome
measures

...litate
...tion

**Digital Health
Equity**

Mapping
DHE

Pathway for digital
health equity co-
design, inclusion
& evaluation

**Mental Health &
Addiction**

Partnership

Establish
working
group

Create
case study
for equity

Equity
devices &
connectivity

NZ TELEHEALTH

FORUM & RESOURCE CENTRE