MEDINFO23

8 – 12 JULY 2023 | SYDNEY, AUSTRALIA

Experiences of Care Coordination: Urban, Rural and Indigenous (Māori) perspectives

Introduction and Overview

Patricia C. Dykes PhD, MA, RN, FAAN, FACMI, FIAHSI

@pdykesPatti

Associate Professor/Research Program Director

Harvard Medical School/Brigham and Women's Hospital

Session Moderator

AHRQ Agency for Healthcare Research and Quality

This work is supported by AHRQ 5R01 HS28007-02

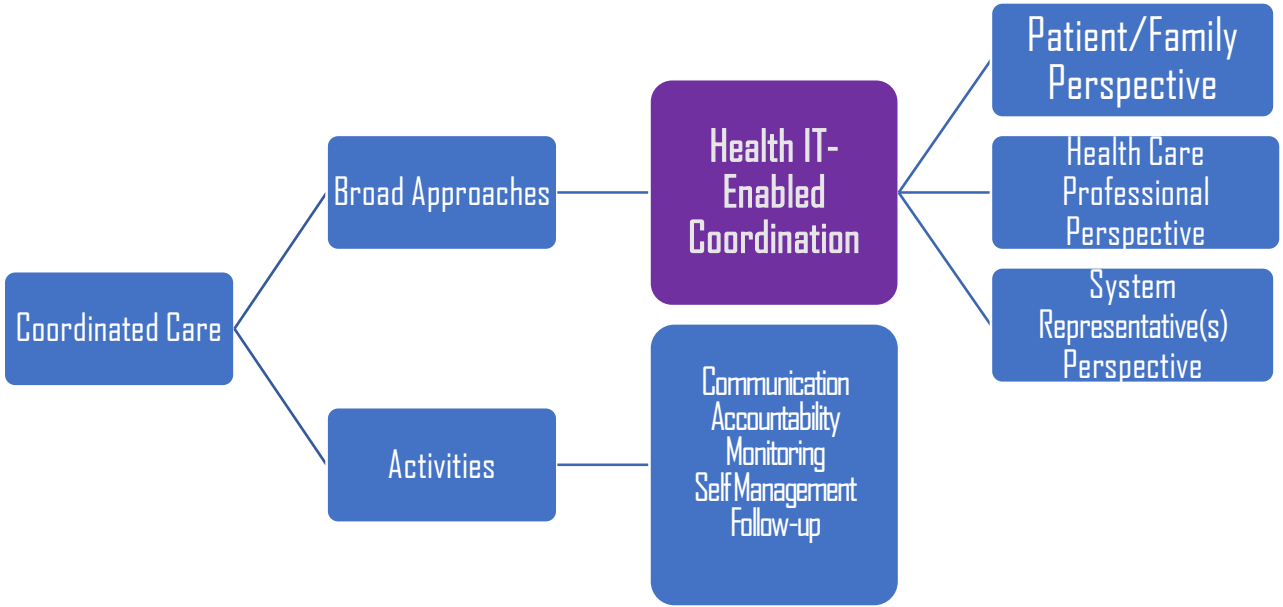
@TheInstituteDH #MEDINFO23

AIDH IMIA

Care Coordination Challenges

- Fragmented Care
- Inadequate Communication and Information Sharing
- Complex Treatment Regimens
- Multiple Care Transitions
- Limited Care Integration
- Lack of Patient Engagement and Self-Management
- Inadequate Care Coordination Resources

AHRQ Care Coordination Framework



Chapter 3. Care Coordination Measurement Framework: Care Coordination Measures Atlas. January 2011. Agency for Healthcare Research and Quality, Rockville, MD.

Care Coordination: The Promise of Technology

- Enhanced Communication
- Efficient Data Sharing
- Remote Monitoring/ Telehealth
- Care Plan Management
- Care Transitions
- Patient Engagement and Empowerment
- Analytics and Insights
- Continuity of Care

MEDINFO23

8 – 12 JULY 2023 | SYDNEY, AUSTRALIA

Digital Experience of Care Coordination: *Urban perspective*

Kaija Saranto

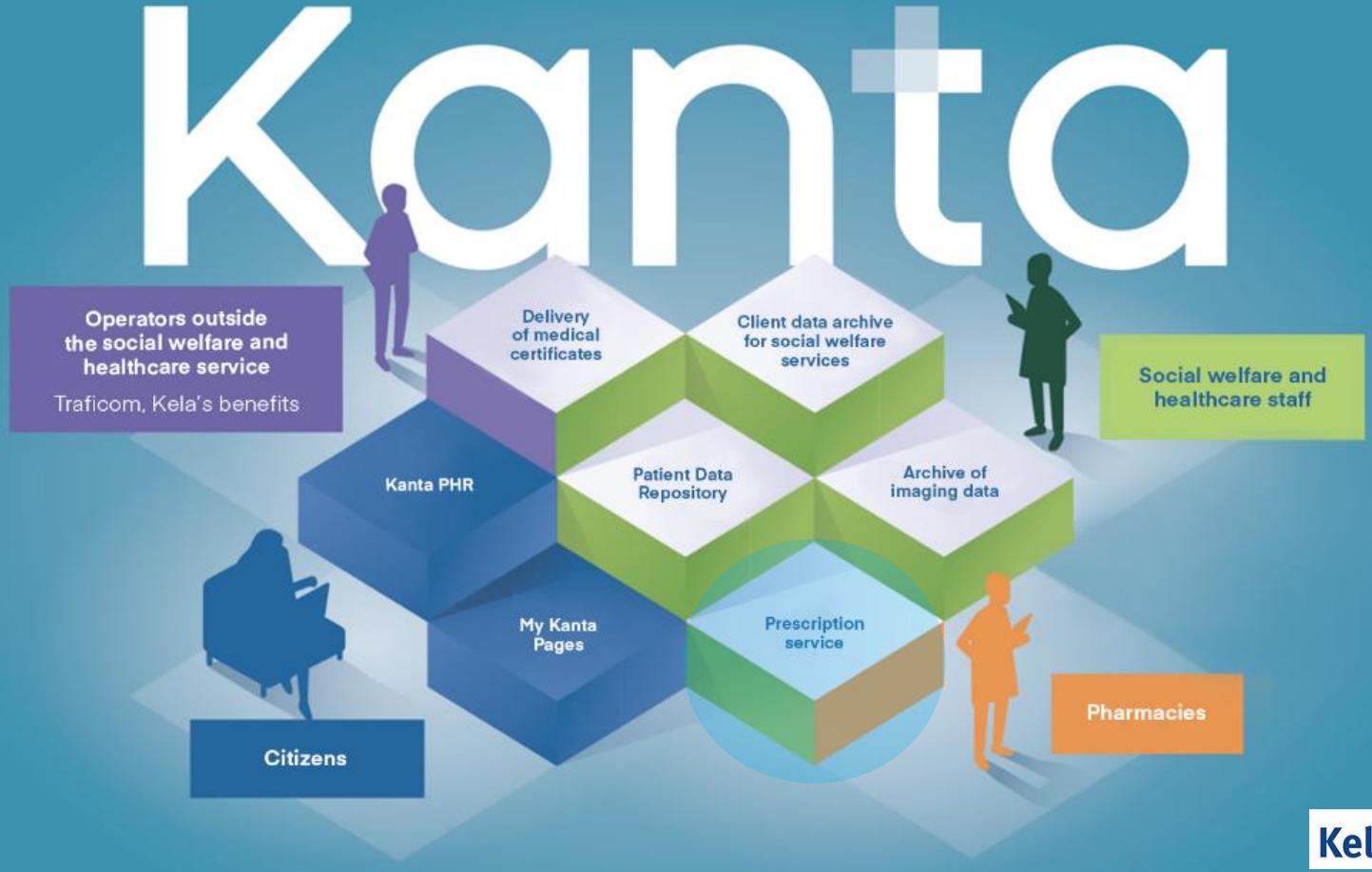
Professor, FACMI, FAAN, FIAHSI

University of Eastern Finland

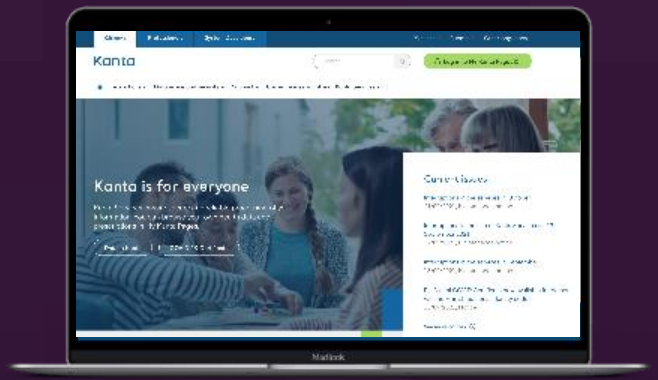
@ksaranto

Digital services to support care coordination

- In Finland, the implementation of the national Kanta services has been carried out step by step from May 2010 based on the strategy for digitalization in health care.
- Kanta services have several user groups: health care service providers, pharmacies, professionals, patients.
- Care coordination is especially supported by My Kanta pages and Patient Health Record, Patient Data Repository and ePresciption Centre


Kanta
Operators outside the social welfare and healthcare service
Traficom, Kela's benefits
Delivery of medical certificates
Client data archive for social welfare services
Social welfare and healthcare staff
Kanta PHR
Patient Data Repository
Archive of imaging data
My Kanta Pages
Prescription service
Pharmacies
Citizens

In My Kanta Pages you can



My Kanta Pages can also be used on a mobile device.

- Browse your prescription and health data
- Request to renew your prescriptions
- Manage your organ donation testament and living will
- Check who your health data has been shared with
- Act on behalf of an adult with a power of attorney
- Manage your consent to e-prescriptions in Europe
- Manage your consents and refusals and acknowledge information
- Act on behalf of your child under 18
- Browse wellbeing data you have Recorded

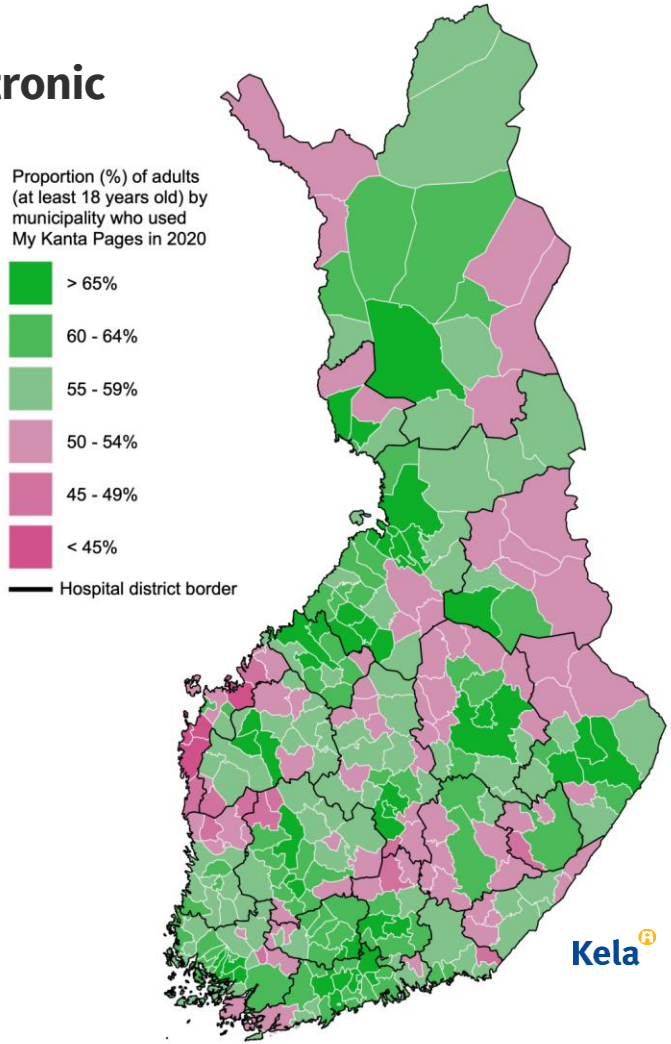
Kanta

Use and users of the national patient accessible electronic health record (My Kanta Pages) from 2017 to 2022

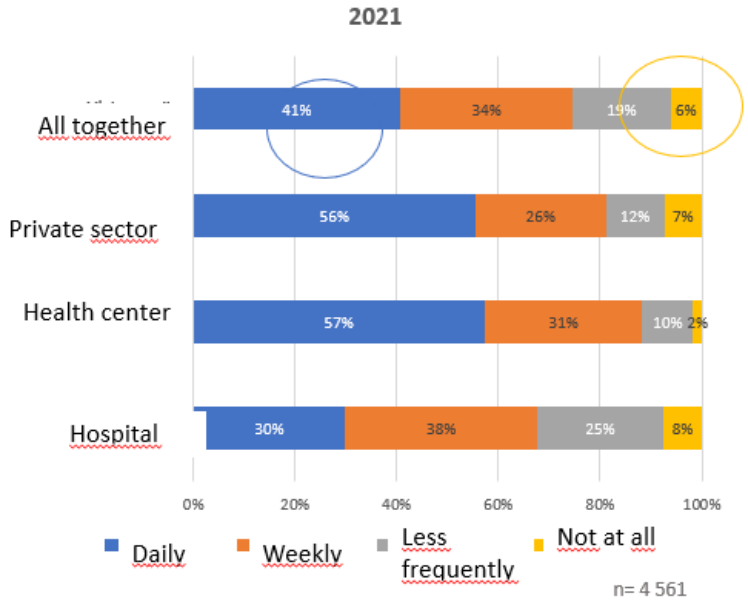
Users	2017	2018	2019	2020	2021	2022
#Users	1.9M	2.2M	2.4M	2.7M	3.8M	3.5M
% of Adults*	42%	49%	54%	63%	82%	78%

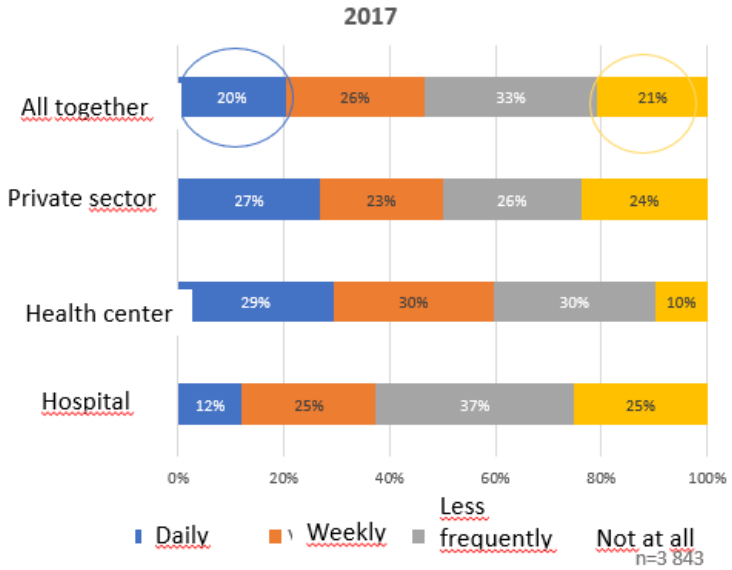
Age group	2018	2019	2010	2021	2022
<18 years	2%	2%	5%	11%	11%
18–35 years	51%	58%	68%	93%	83%
36–50 years	49%	57%	67%	94%	83%
51–65 years	51%	58%	64%	90%	82%
66–75 years		55%	60%	77%	72%
>75 years		28%	32%	44%	43%

Working age

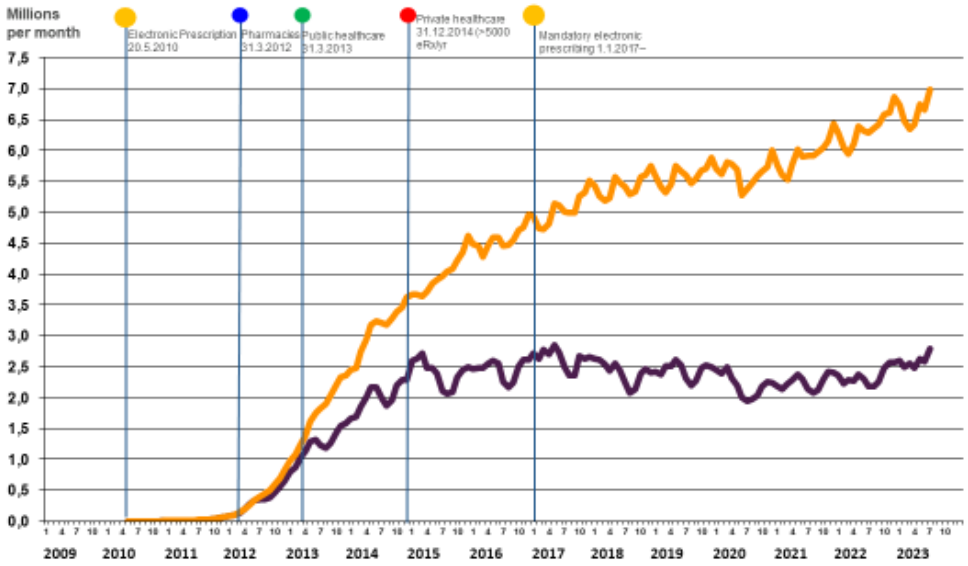


The use of Kanta services for patient data retrieval 2021 and 2017





Monthly number of medication dispensations and electronic prescriptions recorded in the national Prescription Centre from May 2010 in Finland (3 months' moving average).



Medication dispensations from electronic prescriptions

Electronic prescriptions

Kela

Vesa Jormanainen, 8 June 2023 (Helsinki)

MEDINFO23
8 – 12 JULY 2023 | SYDNEY, AUSTRALIA

@twitterhandle

Experiences of Care Coordination: *Aotearoa New Zealand – Māori (Indigenous), Rural perspectives*

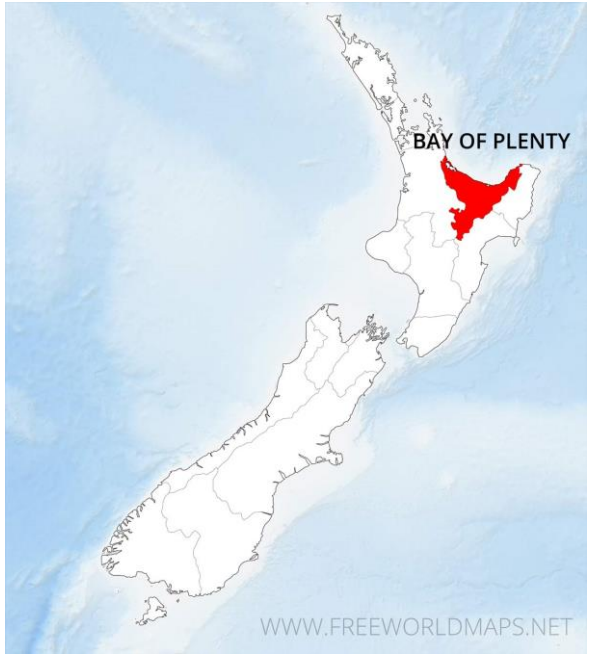
Mariana Hudson[a], Emily Gill[b], Jesse Whitehead[c]

[a]Pharmacy, [b]General Practice, [c]Geography

Universities of Auckland & Waikato, New Zealand

AIDH IMIA

Aotearoa - New Zealand



Care Coordination: innovative opportunity

Care Coordination: innovative opportunity

20 mins

3-4 hrs

2hrs

3-4 hrs

3hrs

Care Coordination: innovative opportunity

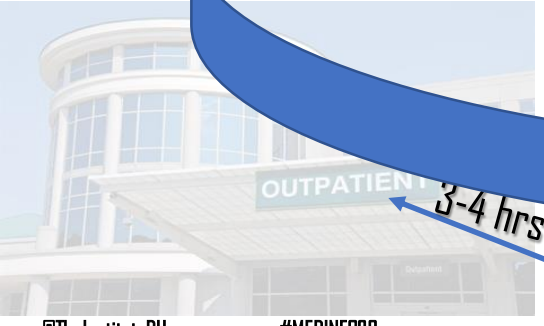
Care

Coordination

20 mins

3-4 hrs

2hrs

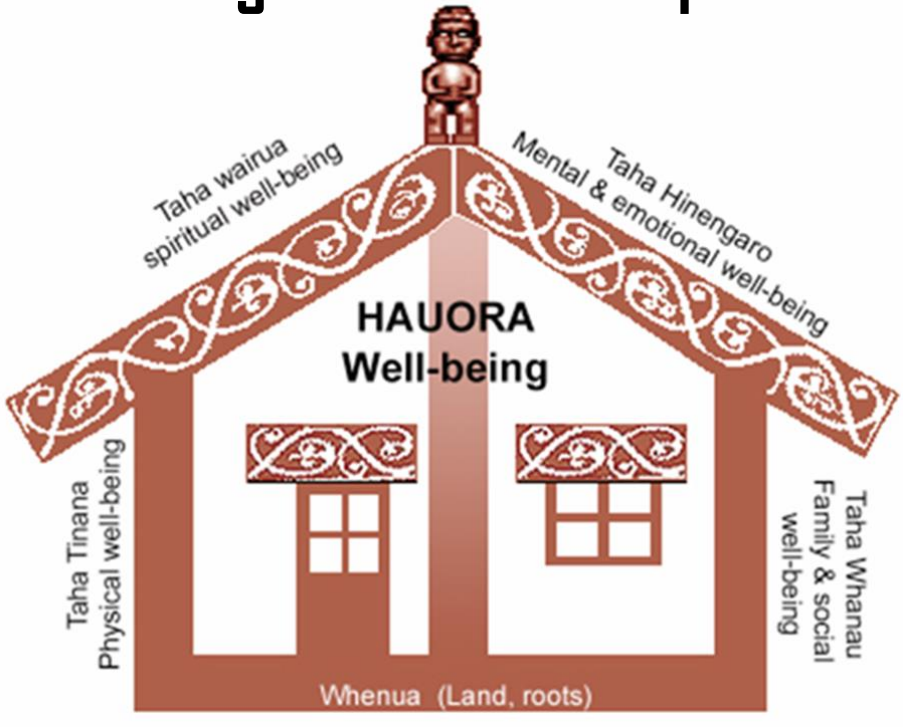


Multiple

Providers

3-4 hrs

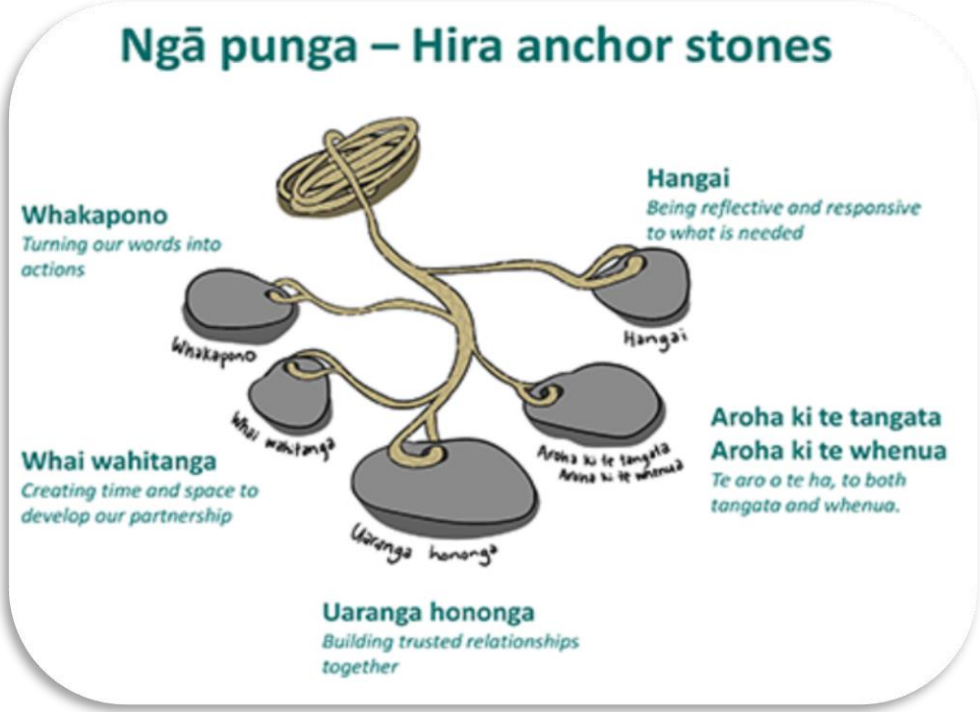
Ora: Health & Well-Being – Te Whare Tapa Wha



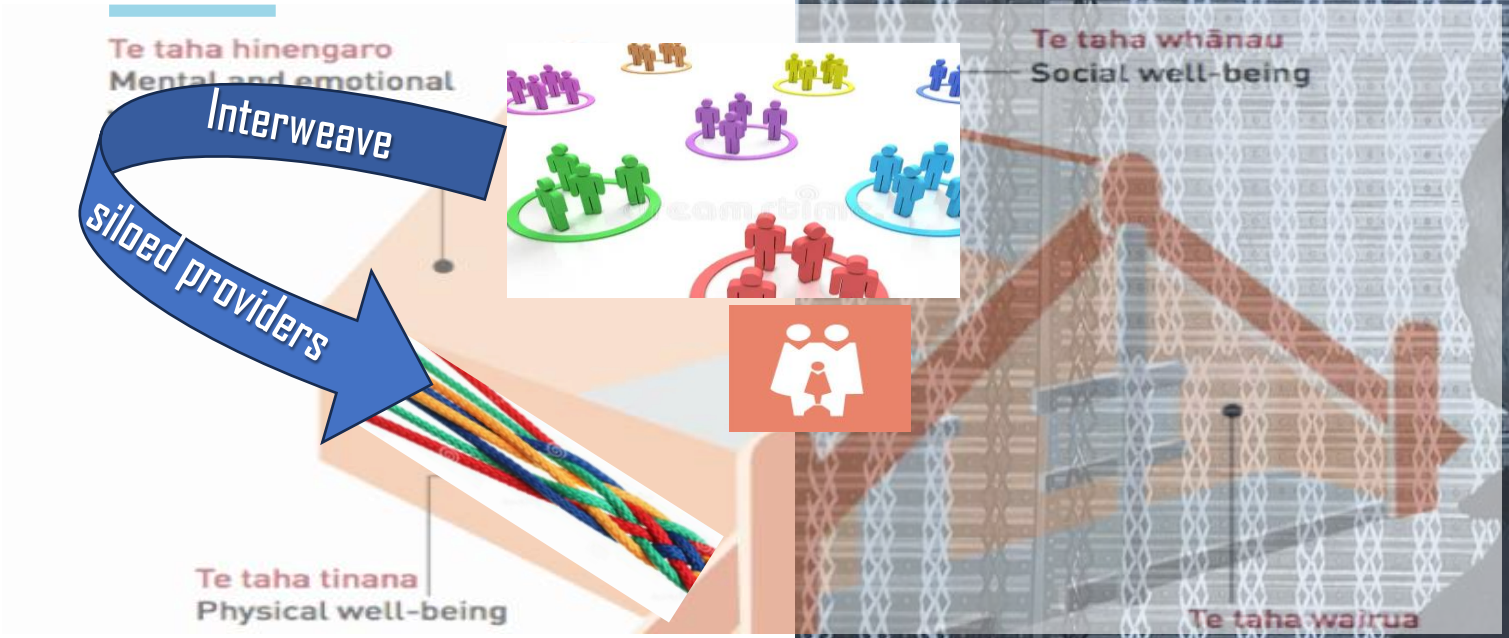
Durie M. *Tirohanga Māori-Māori Health Perspectives* **1994**. 66-80 p.

Kaupapa Māori informed

'Hira' - *NZ's personal health record platform.*



Tukutuku


Te taha hinengaro
Mental and emotional
Interweave
siloed providers
Te taha whānau
Social well-being
Te taha tinana
Physical well-being
Te taha wairua

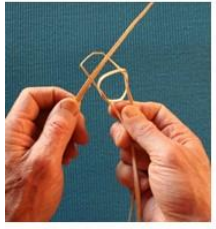
Tukutuku

Fibre Craft technology

Tumatakahuki
Plan of Care

Wahine Poutama
Monitor, follow up, & respond to change

Kaupapa
Assess needs & goals



Te Hono a Matuku – Tangotango
Negotiate responsibility

Tukutuku: *an approach for care coordination*

Taki-toru
communicate

17-Jun-23

Tukutuku: Nov 2022 - Ōpōtiki rōpū [R Ngarimu-Cameron, M Hudson, E Gill]

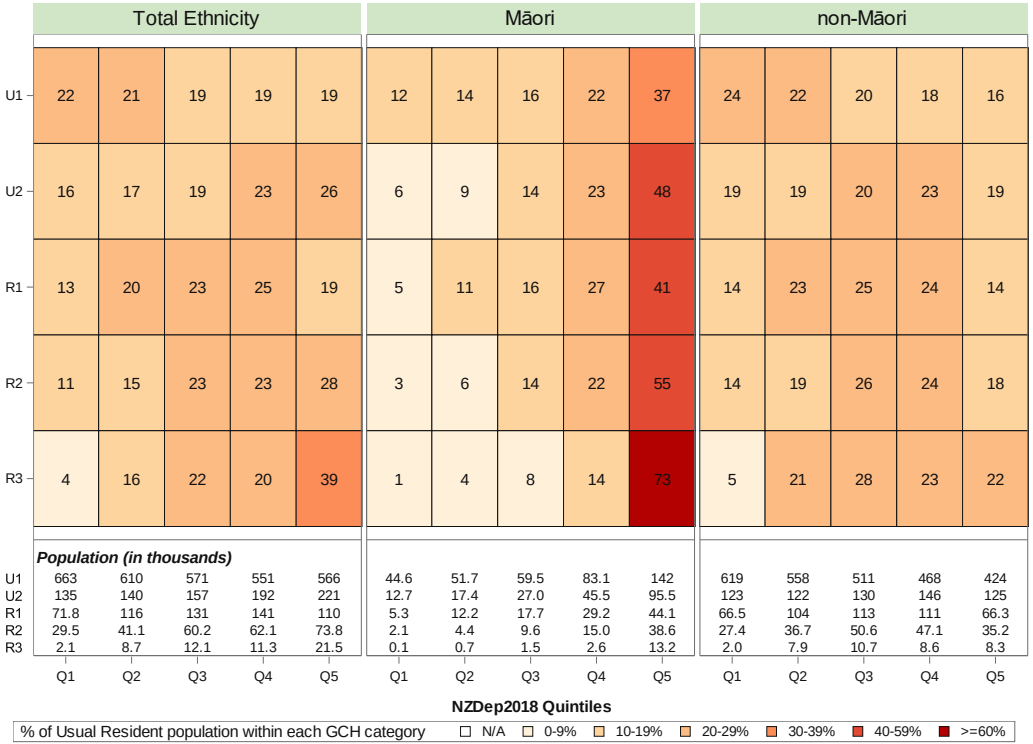
Rural

- Travel-time to services; Reduced choice
- Recent research
  - GCH classification
  - Accurately & meaningfully defined populations
  - Unmasked rural-urban disparities
- Verification and Updates
  - Essential for high quality data
  - Geospatial data essential for innovative IT tools

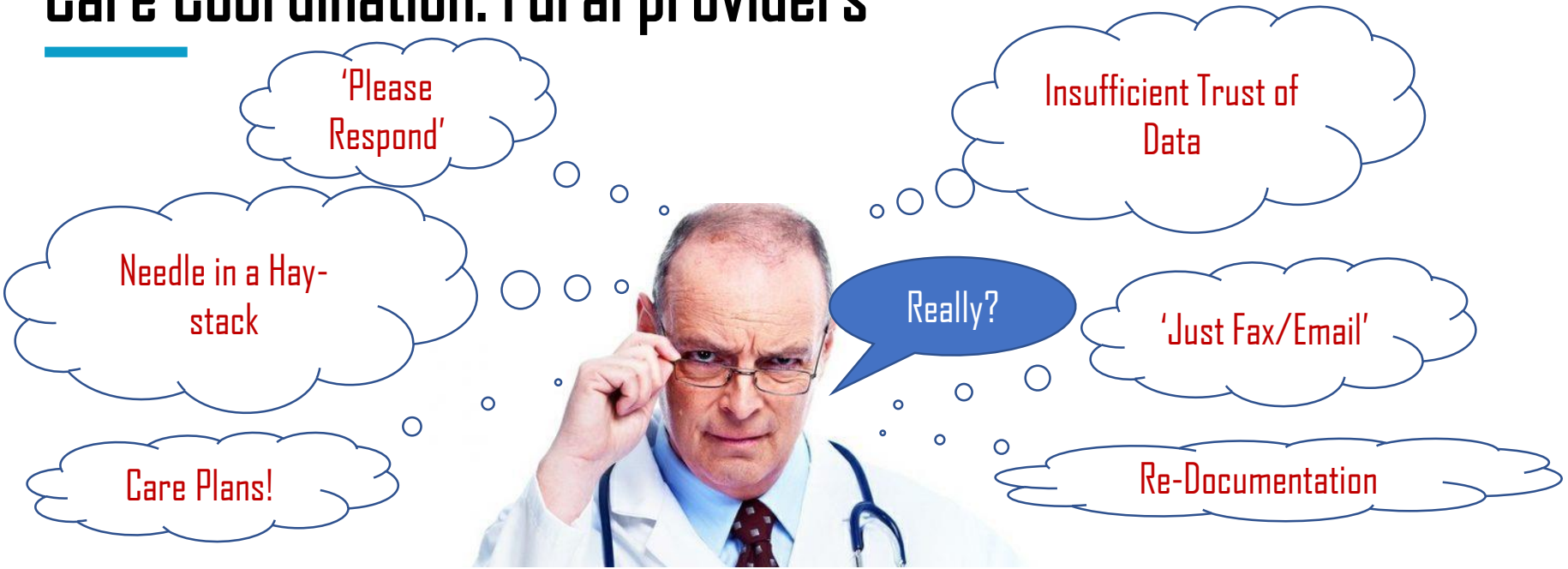
Variable	Urban	Rural	Most rural (R3)
Population	81%	19%	1%
Land area	9%	91%	39%
Māori	14%	20%	28%
Age 65+	14%	20%	18%
Internet access	81%	74%	65%

Whitehead, J., Davie, G., de Graaf, Crengle, S., Lawrenson, R., Miller, R., Nixon, G. (2023). Unmasking hidden disparities: a comparative observational study examining the impact of different rurality classifications for health research in Aotearoa New Zealand. *BMJ Open, 13*(4), http://dx.doi.org/10.1136/bmjopen-2022-067927
Crengle, S., Davie, G., Whitehead, J., de Graaf, B., Lawrenson, R., & Nixon, G. (2022). Mortality outcomes and inequities experienced by rural Māori in Aotearoa New Zealand. *The Lancet Western Pacific.* https://doi.org/10.1016/j.lanwpc.2022.100570

Rural


Total Ethnicity
Māori
non-Māori
U1 22 21 19 19 19 12 14 16 22 37 24 22 20 18 16
U2 16 17 19 23 26 6 9 14 23 48 19 19 20 23 19
R1 13 20 23 25 19 5 11 16 27 41 14 23 25 24 14
R2 11 15 23 23 28 3 6 14 22 55 14 19 26 24 18
R3 4 16 22 20 39 1 4 8 14 73 5 21 28 23 22
Population (in thousands)
U1 663 610 571 551 566 44.6 51.7 59.5 83.1 142 619 558 511 468 424
U2 135 140 157 192 221 12.7 17.4 27.0 45.5 95.5 123 122 130 146 125
R1 71.8 116 131 141 110 5.3 12.2 17.7 29.2 44.1 66.5 104 113 111 66.3
R2 29.5 41.1 60.2 62.1 73.8 2.1 4.4 9.6 15.0 38.6 27.4 36.7 50.6 47.1 35.2
R3 2.1 8.7 12.1 11.3 21.5 0.1 0.7 1.5 2.6 13.2 2.0 7.9 10.7 8.6 8.3
Q1 Q2 Q3 Q4 Q5 Q1 Q2 Q3 Q4 Q5 Q1 Q2 Q3 Q4 Q5
NZDep2018 Quintiles
% of Usual Resident population within each GCH category
N/A
0-9%
10-19%
20-29%
30-39%
40-59%
>=60%

Care Coordination: rural providers



Gill E, Dykes PC, Rudin RS, Storm M, McGrath K, Bates DW. Technology-facilitated care coordination in rural areas: What is needed? Int J Med Inform. 2020;137:104102. Epub 20200219. doi: 10.1016/j.ijmedinf.2020.104102. PubMed PMID: 32179256; PubMed Central PMCID: PMC7603425.

Coordination: HIT to address frustrations

AHRQ activity[1]	Tool	Functional & Useable Features
Accountability	Secure IM	• Collaborative verification of exchanged health data • Negotiate responsibility
Direct Communication	Integrated secure IM	• With patient EHR to avoid duplicative data entry • With scheduling to facilitate synchronize communication as required
Care Planning	Longitudinal Care Plan	• Dynamic over sequential transitions • Integrated with patient portal and EHR • Role-specific user display across care team (e.g., patient vs specialist). • Unstructured goal, assessment & plan fields for succinct and unique patient narrative.
Follow-up	Reconciliation automation	• Automate received structured data → verification/modification → incorporate into EHRs • Integrate verification step with Secure IM for bi-directional exchange
Information Exchange		Interoperability across unaffiliated EHRs

Next steps: improve Care Coordination

- Fibre craft technology -> innovative lessons for digital solutions?
  - User Experience (UX), Longitudinal Plan of Care (LPOC)
- Rural geospatial data fields
  - *Verify* address every episode-of-care -> *update* national register
  - Geocoding integrated scheduling
- Provider digital functions
  - Continuity of Care -> patient and provider IDs
    - NZ datasets: National Health Index (NHI) – Health Provider Index (HPI) – National Enrolment Service (NES)

Discussion

Questions?