Māori Relationship Board Meeting

Date: **December 2016**

Meeting: **No meeting scheduled**

Board Members:

Ngahiwi Tomoana (Chair)
Heather Skipworth (Deputy Chair)
George Mackey
Na Raihania
Des Ratima
Ana Apatu
Kerri Nuku
Lynlee Aitcheson-Johnson
Diana Kirton
Helen Francis
Trish Giddens
Tatiana Cowan-Greening

Papers provided for consideration and feedback include:

For feedback:

2 Long Term Conditions (LTC)

2.1 LTC Framework

2.2 LTC Appendices

Please email feedback directly to leigh.white@hbdhb.govt.nz by Monday 19 December if possible.

For Information:

3 Maori Health Plan Q1 and Dashboard

4 Copy of the Fluoride presentation of 9 November (by Dr Robin Whyman)

HAWKE'S BAY District Health Board Whakawāteatia	**Hawke's Bay District Health Board Long Term Conditions Framework**
	For the attention of: **Maori Relationship Board, Clinical and Consumer Council**
Document Owner: Document Author(s):	Tim Evans and Mark Peterson Jill Garrett and Leigh White
Primary Care Sponsor(s)	Mark Peterson Chief Medical Officer Primary Chris McKenna – Chief Nursing Officer Primary and Secondary
Date:	December 2016

Purpose:

1. Acknowledge and endorse content of draft Framework

2. Provide feedback regarding:
   a) implementation stages and their timing
   b) trial with diabetes and respiratory services to inform final document
   c) identification of members for a LTC Advisory Group (inclusive of primary care – secondary services – allied health - Māori health providers and consumers)

1. BACKGROUND

Long term conditions have become the most significant cause of death and disease. Hawke's Bay is above the national prevalence[1] in 6 out of 11 chronic disease risk factors for adults aged 15 years and over. The financial burden of this equates to 15% of the total health spend.

Currently 81% of funds associated with Long Term Conditions is spent on acute management and rehabilitation services, and only 19% on early intervention and prevention.

The framework is aimed at shifting the focus towards early intervention and prevention within the next 5 years. Within that time frame it is anticipated that shifting the spend ratio to a 60% acute management-rehabilitation and 40% early intervention and prevention could be achieved. This would equate to approximately a 4% change in budget allocation per annum over a 5 year period.

To date Hawke's Bay DHB has not had a strategic document that provides a framework against which the planning and reporting for Long Term Conditions can be aligned and monitored. In 2015 it was identified as a priority by both primary and secondary care services. In April 2016 the Strategic Services Manager – Primary Care and the Portfolio Manager Long Term Conditions commenced the development of the framework in consultation with consumer, primary, secondary and allied health teams.

[1] [1] NZ Burden of disease study 2013. Chronic Disease: Current Situation Analysis (Prevalence, Morbidity and Mortality)-Lisa Jones Business Intelligence HBDHB.

The HBDHB Long Term Conditions Framework is generic in its approach. It is not disease specific. Nationally and internationally effective Long Term Conditions approaches focus holistically on the person and/or whānau, listening to 'what matters to you" rather than asking "what's the matter with you".

Many of our whānau have more than one long term condition which has an impact on, or can be a result of, mental health and un-wellness. Threaded throughout the framework is recognition that mental wellness/illness impacts greatly on effective self-management of long term conditions.

2. FRAMEWORK STRUCTURE

Based on the **Four Aka (roots);** Person-Family-Whanau Centred Care, Person Centred Systems and Processes, Workforce Development and Enablement and Risk Identification and Mitigation. Each of the Four Aka have four contributing dimensions (see pages ….. of the Framework). Where appropriate the outcome attached to each of the dimensions is linked to both System Level Measures and the outcomes (currently draft) of Transform and Sustain.

The methodology for change on which the framework is based is IHI Improvement Methodology. This is an outcomes based methodology that works through setting up manageable (small) change environments that lead to system wide improvements.

Implementation tool – to achieve system wide improvement –. The Long Term Conditions Service Review Matrix **(LTC-SRM**) is a self-review tool, against which services can evaluate their achievement against the Four Aka.

The SRM is structured around a continuum of excellence (see Appendix One of the Framework). With the support of QIPS facilitator's et.al, services will;

- be invited to work within a multi-disciplinary approach to addressing Long Term Conditions
- assess where they sit on the LTC-SRM using agreed sources of evidence
- utilise service planning and reporting mechanisms to work towards shifting performance within the continuum towards excellence.

- The **LTC-SRM** serves also as a global assessment tool - for where services across the sector (both primary and secondary) sit in relation to performance against LTC outcomes. *(see page 11 of appendix one).* This will provide a helicopter view of where areas need to be strengthened and
- additional resources and support placed to move performance from entry level to excellence.

3. FRAMEWORK PURPOSE

- Address equity through a focus on consumer (whānau) focused services
- Achieve optimised health outcomes for the population of Hawke's Bay
- Ensure that evaluation does not rest solely with measuring clinical outcomes but includes quality of life, patient activation measures, confidence measures based on researched self-care and self-management methodologies[2]
- Shift from individual service to integrated service models of delivery (MDT and IDT)

[2] Self-Care and Self-Management programs of work currently in practice within Hawke's Bay include the Stanford Model (recognised in over 43 countries), WHO, Brief Quality of Life Tool and at its inception phase Clinical and Patient Activation measures based on Relationship Centred Care.

- o Evaluate the spend (total) for long term conditions and how focusing on risk mitigation, prevention and early intervention will have a positive impact on reducing demand on; ED Presentations, ED Admissions and Length of Stay.
- o Provide a tool against which services can evaluate their effectiveness[3] against the four Akas of the framework and measure progress towards achieving excellence over time.
- o Use an interdisciplinary approach in the design and ongoing evaluation and modification of the services to improve health outcomes
- o Challenge the status quo and provide opportunity for innovative practice based on co- design models of care

4. IMPLEMENTATION

Stage 1:

April – Nov 2016 (completed)

- Consultation with a wide range of consumers (groups and individuals), service providers both secondary and primary, Health Hawke's Bay Population Priority Committee, members of the HBDHB Clinical Council and Service Directorates
- Alignment: with NZ Health Strategy, Transform and Sustain, HBDHB Equity Report, MoH Long Term Conditions Dimensions (currently under development)
- Financial analysis of current spend in relation to: the triple aim, live well, get well, stay well strategy in line with generic spend and spend on the top 5[4] Long Term Conditions inclusive of mental health and wellness across the board.
- Iterations x 16 of framework in response to findings
- Development of the Long Term Conditions Service Review Matrix
- First Draft presented to EMT and CAG (8th & 9th November)

Nov- Dec (in progress)

- First Draft presented to committees; Clinical Council, MRB[5], Consumer Council
- Revision of documents in response to committees feedback

Stage 2: Jan – Mar 2017

- Develop easy read version written with a health literacy lens so that consumer may engage with the framework and provide feedback
- Completion of patient x 5 tracer audits by QIPS team member (Val Guay)
- Advisory group formed (MDT)
- Analysis of tracer audits
- Review modification and finalising of Service Review Matrix (SRM)
- Trial of Framework and LTC - SRM with Respiratory and Diabetes Services
- Develop program of workshops for the socialisation of the framework and utilisation of the SRM with service planning and reporting cycles

Stage 3: April 2017

- Finalise Document
- Finalise the easy read version
- Develop a consumer evaluation tool

[3] The evaluation tool – LTC Service Review Matrix has been developed in draft conceptual form – awaiting formation of the LTC Advisory Group to inform its final content.

[4] The Top Five Long Term Conditions are; Cardiovascular Disease, Cancers, Respiratory, Musculoskeletal, and Diabetes.

[5] Māori Relationship Board

Stage 4: May 2017

- Launch document
- Socialise with MoH
- Commence program of implementation developed in Stage 2:

Stage 5: Ongoing

- Monthly to quarterly meetings of Long Term Conditions Advisory Group
  Function:
  - Evaluation of current trends (qualitative and quantitative data analysis – cross sector)
  - Form recommendations to services against findings
  - Monitor progress against findings
  - Provision of leadership and management advice
  - Connect regionally and nationally to inform current and future planned work practices

5. THE FRAMEWORK:

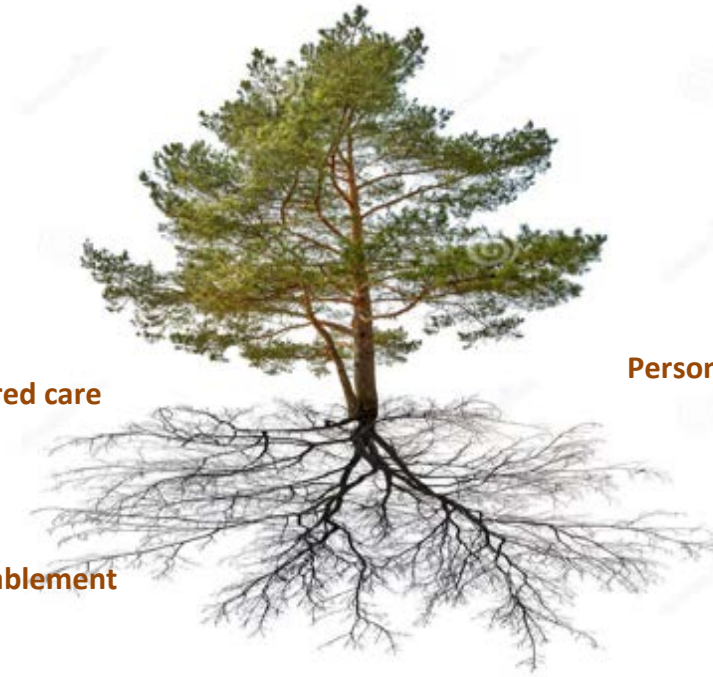
Contents List

Long Term Conditions Framework

Hawke's Bay DHB
Long Term Conditions (LTCs) Framework

Person- family - whānau centred care

Person centred systems and processes



Workforce development and enablement

Risk identification and mitigation

The Kahikatea[1]

[1] The Kahikatea – or white pine is native to New Zealand. Significant for its extensive and intertwining root system indicating interdependencies support.

Content

Executive Summary:

Why do we need a Hawke's Bay Framework - Long Term Conditions have become the most significant cause of death and disease contributing to; to 80% of deaths and 80% of the health budget spend. Hawke's Bay is above the national prevalence level in 6 out of 11 chronic disease risk factors for adults aged 15 years and over2. This has a significant impact on individuals, whanau and the wider community.

The structure of the framework is - Based on the Four Aka (roots); Person-Family-Whanau Centred Care, Person centred systems and processes, Workforce development and enablement and Risk identification and mitigation. Each of the Four Aka have four contributing dimensions (see pages 8-11 below). Where appropriate the outcome attached to each of the dimensions is linked to both System Level Measures and the outcomes (currently draft) of Transform and Sustain. The methodology for change on which the framework is based is IHI Improvement Methodology. This is an outcomes based methodology that works through setting up manageable (small) change environments that lead to system wide improvements.

System wide improvement – implementation tool. The Long Term Conditions **Service Review Matrix (LTC-SRM - Appendix One)** is a self-review tool, against which services can evaluate their achievement against the four Aka. The SRM is structured around a continuum of excellence
With the support of QIPS facilitators et.al, services will;

- be invited to work within a multi-disciplinary approach to addressing Long Term Conditions
- assess where they sit on the LTC-SRM using agreed sources of evidence
- utilise service planning and reporting mechanisms to work towards shifting performance within the continuum towards excellence.

The LTC-SRM serves also as a global assessment tool - for where services across the sector (both primary and secondary) sit in relation to performance against LTC outcomes. *(See page 11 of Appendix One).* This will provide a helicopter view of where additional resources and support need to be placed within the sectors to move performance from entry level to excellence.

The framework is NOT disease specific – People often experience more than one chronic condition and associated mental health challenges. We need to promote holistic care of the person and their whānau in a stay well – get well – be well model.

Prevention vs intervention – the framework is focused on prevention, early intervention and management as a strategy for reducing the increasing demand on acute hospital based services. Self-care and self-management underpins the framework so that people choose well in relation to addressing their own health needs. Based on business intelligence modelling of population trends coupled with a shift of emphasis to early intervention, it is anticipated that a reduction of up to 4% demand on acute services can be achieved. This will be evidenced through; reduced ED presentations, reduced ED admission rates and reduced length of stay. Over a 5 year period that will equate to resource economies of 20%.

[2] Chronic Disease: Current Situation Analysis-Prevalence, Morbidity and Mortality. Lisa Jones HBDHB Business Intelligence Team.

Vision

Your Health in Your Hands with Our Help and Support

Kei a koe te tikanga [3]

Mission statements[4]

Our people and systems respect and support self-management

Ka whakamiha, ka tautoko hoki ō tātou tāngata, ā tātou pūnaha i te whakahaere whaiaro a te tangata.

people powered – people and whānau centred care[5]

We are a connected collaborative team involved in your care

He tira tūhono, he tira mahi tahi mātou ka tiaki i a koe.

one team – whole public sector delivery

We value quality, effectiveness and innovation

Ka matapopore mātou ki te kounga, te whaihua, te auaha hoki

value and high performance - smart system – information system connectivity

We strive to be responsive and flexible

Ka whakarīrā mātou kia rarata ai, kia urutau ai hoki

closer to home – health and social care networks

[3] Kahungungu Hikoi Whenua

[4] The mission statements connect with the **NZ Health Strategy priorities** and **Transform and Sustain refresh priorities**. Te Reo translation provided by HBDHB translation team.

[5] These statements align with the NZ Health Strategy and the Refresh Transform and Sustain Program

The Four Aka

Person - Family - Whānau Centred Care

- Consumer voice
- Health Literacy
- Self-Care
- Understanding the determinants of health

Person Centred Systems and Processes

- Health and Social Care networks
- Models of care development
- Collaborative clinical pathways
- Integrated IT systems and enablement

Workforce Development and Enablement

- Clinical Leadership
- Clinical expertise
- Workforce capacity and capability
- Inter-sectoral development

Risk Identification and Mitigation

- Population health
- Equity
- Continuous quality improvement
- Governance and advisory support

Section One: Why do we need a strategy?

What do we know?

Context and definition: Long term chronic conditions are defined by the **World Health Organisation** as having one or more of the following characteristics: they are permanent, leave residual disability, are caused by non-reversible pathological alteration, require special training of the person for rehabilitation, or may be expected to require a long period of supervision and care (WHO. 2005. Preventing Chronic Disease) refer: https://www.rnzcgp.org.nz/assets/documents/Training-and-Beyond/Curriculum-Documents-2014/Long-term-Conditions-CS.pdf . Not all LTCs are precipitated by lifestyle factors, some are genetic, such as cystic fibrosis. LTCs can originate at birth or in childhood and persist into adulthood.[6] Minimising the impact of Long Term Conditions on our populations' health requires of us attention to what can be prevented and or minimised through mitigation of risk, minimisation of harm and early and effective intervention and management strategies.

The effects of LTCs for the Individual: Long term conditions impact greatly on quality of life, independence and economic wellbeing. The psychological aspects of dealing with long term conditions can be considerable, varying from dealing with personal response to the disease; coping with treatment; feeling of lack of personal control and handling the responses of others. People with multiple morbidities risk experiencing poor coordination of treatments primarily designed to address single conditions.

For the health and care system: It is predicted by the World Health Organisation that chronic conditions will be the leading cause of disability by 2020 and that if not successfully managed will become the most expensive problem for health care systems.

Chronic disease is a major contributor to the life expectancy gap between Māori and Pasifika and Non Māori and Pasifika peoples[7]

15% of the population of Hawke's Bay have one or more Long Term Condition[8]

An estimated **80%** of health care funds are spent on chronic disease[9]

80% of all deaths in NZ result from chronic conditions.[10]

Getting serious about eliminating health inequity: Māori and Pasifika should not be disproportionately represented within this population group[11]. They should not expect to have much higher levels of chronic disease at a much earlier stage in life [12] than Non Māori. Māori and Pasifika have the right to expect the same life expectancy, morbidity and mortality rates as Non Māori.

[6] Referenced to the developing draft Long Term Conditions Service Specifications – Ministry of Health.

[7] Ajwani S, Blakely T, Robson B, Tobias M, Bonne M. 2003. *Decades of Disparity: Ethnic mortality trends in New Zealand 1980-1999*. Wellington: Ministry of Health and University of Otago.

[8] Chronic Disease: Current Situation Analysis-Prevalence, Morbidity and Mortality. Lisa Jones HBDHB Business Intelligence Team.

[9] New Zealand Guidelines Group. 2001. *Chronic Care Management: Policy and Planning Guide*. Compiled by the Disease Management Working Group

[10] Ministry of Health. 1999. *Our Health Our Future: Hauora Pakari, Koiora Roa*. Wellington: Ministry of Health

[11] This population group refers to those with a long term condition.

[12] Ajwani S, Blakely T, Robson B, Tobias M, Bonne M. Decades of disparity: Ethnic mortality trends in New Zealand 1980-1999. Wellington: *Ministry of Health and University of Otago; 2003.*

My Challenge - Your Challenge - Our Challenge

The health of our population changes dramatically when we approach 35yrs of age.
To make a difference we need to begin at birth, working with our partners across all sectors, all disciplines

Starting now

Our way of working will be sustainable.
Our focus will shift from curative to preventative practices in all aspect of our work and care.

Focusing on Māori and Pasifika

Getting it right for Māori and Pasifika will mean everyone benefits.
Find the gap and take action to reduce it.

Not just one but multiple conditions present challenges for the individual and the health system: Increasing numbers of people present with more than one LTC. The rise in the incidence of long term conditions can be attributed to an increase in lifestyle risk factors (refer snap shot one – page 5) an ageing population with associated increased levels of frailty, and the socioeconomic determinants of health. People with multiple long-term conditions have markedly poorer quality of life, poorer clinical outcomes and longer hospital stays, causing them to be the most costly group of patients.[13]

Mental health and well-being is a challenge faced by all with a long term condition. It is a long term condition that will impact significantly on the health outcomes of our population.

Prevention and early intervention need to be the focus of the Long Term Condition Framework; the majority of long term conditions are preventable or could be better managed. Elimination of modifiable risk factors would prevent 80 percent of premature heart disease, 80 percent of premature stroke, 80 percent of type 2 diabetes and 40 percent of cancer.[14]

Prevention should be the focus of all aspects of Long Term Condition Management; prevention of expectation of occurrence, prevention of occurrence, prevention of exacerbation of risk factors, prevention of deterioration in health and wellbeing, prevention of increasing levels of acuity.

Prevention is about the individual and the health system working in partnership to fund and provide appropriate access to resources, activities and expectations that promote self-care – self management from a cradle to the grave. It is supporting a system that "empowers the patient to take a lead role in managing their health and ensuring access to the range of services and resources required to achieve optimal outcomes (WHO, 2002)

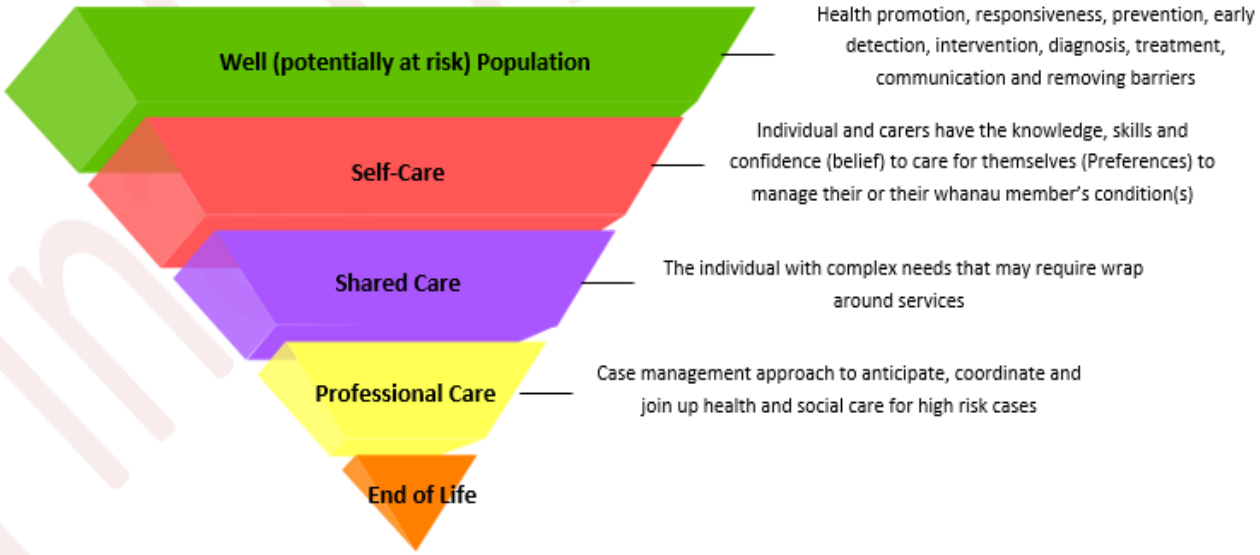
[13] Goodwin, N., Curry, N., Naylor, C., Ross, S., Dulig, W., Managing People with Long Term Conditions (2010), *The King's Fund*.
[14] World Health Organization, 2009. Interventions on Diet and Physical Activity: What Works: Summary Report

A non-disease person centred framework - The need to reduce health inequalities is a priority. Considerable health inequalities occur between population groups due to many factors including; historical, cultural, socio-economic status, geographical place of residence, ethnic identity, and gender. Long term chronic conditions account for a higher proportion of illness and deaths among Māori, people on low incomes and Pacific peoples than among the general population. New Zealand studies have identified organisational, human resource, and person-community issues in access to health care as barriers for care[15].

Less focus on disease (medical diagnosis) and greater focus on the person as a whole: Current service provision, is still weighted towards disease diagnostics but there needs to be a shift from reactive to managed care within a social, cultural and economic context. There needs to be a greater emphases on prevention, early intervention, self-management and improved cross sector integration (inclusive of social services, education, housing and justice) and relationships. The emphasis needs to be on the person and their families/whānau being partners in their care.

Model of care delivery is now gearing up to meet the needs of the population by stratifying it by risk rather than by disease. This predicates the requirements for care and will determine the design of workforce capacity and capability.

Figure 1.1 – Population Care Stratification



[15] *Discussion paper, Improving Responsiveness to Māori with Chronic Conditions May 2010*

Section Three: The Four Aka

Key: SLM – System Level measures | c-SLM – Contributing Measure

	Components of each aka	Objectives	Process measures	Outcome (Draft) Transform and Sustain
Person - Family - Whānau centred Care	**Consumer voice**	Consumers are integral to the design and evaluation of services	**Consumer input is demonstrated in service level planning and reporting** • Consumer feedback mechanisms in place *(number + variety)* • Complaints trends analysis *(utilising the WHO[16] taxonomy of categories)* • Service level plans demonstrate response to consumer voice	**Power balance shifted more in favour of consumers**
	Health Literacy	Health literacy improvements enhance access and navigation to health services by the consumer	**Health information is consumer / user focused** • Utilisation of consumer experience surveys (c-SLM) • GP practices offering an e-portal • Consumers engaged in self-management/rehabilitation programs • DNA rates-Outpatients / GP LTC consults	**Consumers access understandable information & enabled to take action**
	Self-Care	Consumers are supported to self-manage to their highest level of confidence	**Proactive Utilisation of Health services** • *+7 ED presentations (acute)* • Referral rates to accredited self-management programs • **Reduction in ASH rates** (SLM) • **Reduction in readmission rates** (SLM)	**Consumers equal partners in their health care and engaged in their own treatment** *(management)*
	Understanding the determinants of health	Health professionals implement clinical and cultural competence[17] health strategies based on an understanding of the determinants of health	**Completion rates of Mandatory training** • Treaty of Waitangi Responsiveness • Cultural competency • ACE assessment • Health Literacy modules (Primary) • Relationship Centred care training • Utilisation of Patient and clinical activation measures[18]	**Services are aligned to community need**

[16] http://www.who.int/patientsafety/taxonomy/icps_full_report.pdf

[17] Cultural competence is a set of congruent behaviours, attitudes, and policies that come together in a system, agency or among professionals and enable that system, agency or those professions to work effectively in cross-cultural situations. Refer: Cross T, Bazron B, Dennis K, Isaacs M. Towards a Culturally Competent System of Care, Volume I. Washington, DC: Georgetown University Child Development Center, CASSP Technical Assistance Center, 1989. Ewen S. Cultural Literacy: An Educational Approach for Health Professionals to Help Address Disparities in Health Care Outcomes. Journal of Australian Indigenous Issues 2010; 13(3); 84-94.

[18] Reference Andy's documents / Relationship Centred Care.

	Components of each Aka	Objectives	Process measures	Outcome (Draft) Transform and Sustain
Person centred clinical systems and processes	**Health and Social Care networks**	Collaborative networks developed providing services closer to home utilising a MDT[19] and inter-professional approach.	**Consumer/community focused outcomes aligned to all contracts** • Establishment of Service Level Alliance Agreements • Establishment of Health Network Leadership Teams • Health Sector aligned to Results Based Accountability • Outcomes based evaluation framework attached to all contracts • Multi agency performance reporting	**Joint leadership between DHB, providers, community and (government) agencies**
	Models of care development	Building health services around the person using a whānau ora model of care and whole of workforce approach.	**Inter disciplinary whole of sector model of care** • HBDHB Workforce framework completed • Individual workforce strategies align to population health needs[20] • Interdisciplinary teams involved in patient care planning • Transfer of care process results in reduced (re) admission rates (c-SLM) • **Reduction in Amenable Mortality** (SLM)	**Consumers access quality care which enables them to manage their own health needs**
	Collaborative Pathways	Providing consistency and equity in the delivery of care for our consumers based on best practice	**Ongoing development, implementation and review of collaborative pathways** • Timely access to services (diagnostics, FSAs, …….) (c-SLM) • Clinical utilization rate of pathways/referrals • Referral decline rates • (timely) Transfer of care • Reduced Bed days (save 4000 beds) (c-SLM) • Disease detection and follow up rates (c-SLM)	**Consistent timely provision of services results in enhanced health outcomes and efficient use of resources**
	Integrated IT systems and enablement	Information Systems, and IT are easy to use, accessible and utilised at all levels for the purpose of system wide improvement.	**IT supports efficiencies** • Utilisation rates of IT patient /population information systems e.g. Dr Info – Karo Reports – Disease registers – population stratification – Service Utilisation statistic • Utilisation of shared patient care records • Utilisation of e-referrals (internal to DHB- Primary care) • ….	**Appropriate and easy access to information for patients clinicians and management**

[19] MDT: Multi-Disciplinary Approach (Health, social and community based services)

[20] Population health profiling is used to proactively stratify the population to enable effective preventative and early intervention management.

	Components of each Aka	Objectives	Process measures	Outcome (Draft) Transform and Sustain
Workforce Development and Enablement	**Workforce capacity and capability**	The capacity and capability of the work force aligns with the population health needs and demand.	**Workforce able to respond to health service needs** • Population stratification data utilised for service design • Service workforce mapped – capacity and capability current and future state • Recruitment and retention rates • Professional development alignment to service needs	**Workforce able to respond to the needs of the Hawke's Bay Population**
	Clinical leadership	Identified clinical leaders provide direction, support and accountability for the uptake and dissemination of best practice models to optimise patient care.	**Services are supported with expert and innovative clinical leaders** • Membership of clinical bodies / leadership forum • Participation in LTC regional-national - international congress • Delivery at LTC fora • Publication and research	**Recognition nationally as Leaders in Long Term Conditions prevention and early intervention methodology (Māori)**
	Clinical expertise	Clinical staff, medical and nursing and allied health, provide services to the top of their scope supported by best practice guidelines under the direction of identified clinical leaders.	**Clinical best practice and expertise is supported** • Service workforce strategy in place • Alignment of workforce strategy with IDT approach • Clinical lead pathway identified and utilised for staff development / incentives • Consistent management and skills sets supported by new training.	**Clinical expertise is recognised within the organisation**
	Inter-sectoral development	Patient care is maximised through the utilisation of an Interdisciplinary Team (IDT) approach to individualised care inclusive of the lay workforce.	**Coordinated partnership approach to patient care** • Care teams utilising a shared record • Customer focused performance reporting • Aligned models of care and funding models • Care teams extend outside the health sector (patient determined)	**Coordinated partner approach to deliver of services with consumer (across agencies)**

	Components of each Aka	Objectives	Process measures	Outcome Transform and Sustain
Risk identification and mitigation	**Population health**	Validated risk profiling is used to support and understand the needs of the population and manage those at risk.	**The system is responsive to the population** **To be completed by Population Health Teams including…** • Determinants of health • Population risk stratification • Service utilisation • Co design models in place	**Elimination of the Health Equity Gap**
	Equity	The gap in consumer health outcomes is addressed actively through targeted approaches to the delivery of care.	**The system is responsive to the population** **To be completed by Māori / Pasifika Health Teams including…** • IDT planning and reporting demonstrate tailored responses to Māori health needs • ….. • …..	
	Continuous quality improvement	Innovative practice is supported. Recognised improvement methodologies are used to achieve evidence based enhanced patient outcomes.	**Change is supported by agreed methodology for improvement** **To be completed by QIPS Teams including…** • IDTs collectively using agreed methodologies for planning and monitoring improvement • Celebration of innovative best practice that is evidence based • Uptake of research and development initiatives • Quality Improvement initiatives cross service boundaries	**Quality improvement cycles imbedded within and across all teams of practice**
	Governance / advisory support	The support of an advisory group is used to evaluate services and advise on service design and improvement	**Change is supported by an Interdisciplinary Advisory** **To be completed by yet to be formed Advisory Team** • ….. • ….. • …..	

Section Four: The Methodologies that Informed the Framework

The Hawke's Bay District Health Board – Long Term Conditions Framework aims to operate from a strengths based approach. This involves looking at and for opportunities to change and improve through utilising existing expertise, systems and relationships. Highlighting high functioning, customer focused coordinated responsive care. What the framework aims to do through the **Service Review Matrix** (Appendix 4) is identify areas of excellence for the purpose of disseminating best practice within our local context, and utilise the following methodologies to effectuate change.

Appreciative Inquiry (AI) – creating a positive atmosphere for change.

Appreciative inquiry is a change management approach that focuses on identifying what is working well, analysing why it is working well and then doing more of it. The basic tenet of AI is that an organization will grow in whichever direction that people in the organization focus their attention

Appreciative Inquiry is about the co-evolutionary search for the best in people, their organizations, and the relevant world around them. AI involves the art and practice of asking questions that strengthen a system's capacity to apprehend, anticipate, and heighten positive potential. AI paves the way to the speed of imagination and innovation; instead of negation, criticism, and spiralling diagnosis, there is discovery, dream, and design. AI seeks, fundamentally, to build a constructive union between past and present capacities: achievements, assets, unexplored potentials, innovations, strengths, elevated thoughts, opportunities, benchmarks, high point moments, lived values, traditions, strategic competencies, stories, expressions of wisdom, insights into the deeper corporate spirit or soul-- and visions of valued and possible futures. Taking all of these together, AI seeks to work from accounts of a "positive" change core.

Results Based Accountability: Not just measuring results – partnering up with those who contribute to a collective (agreed) outcome

Results-Based Accountability™ (RBA), also known as Outcomes-Based Accountability™ (OBA), used by organisations to improve the performance of their programs or services. It recognises that 'trying hard' outputs driven models, do not always result in anyone being 'better off'. RBA uses a data-driven, decision-making process to help (communities and) organisations get beyond talking about problems to taking action to solve problems. The strength of the framework is identifying partnerships and working together for the achievement of a common goal.

IHI Improvement methodology: Testing ideas-theories in controlled environments vs whole of system change

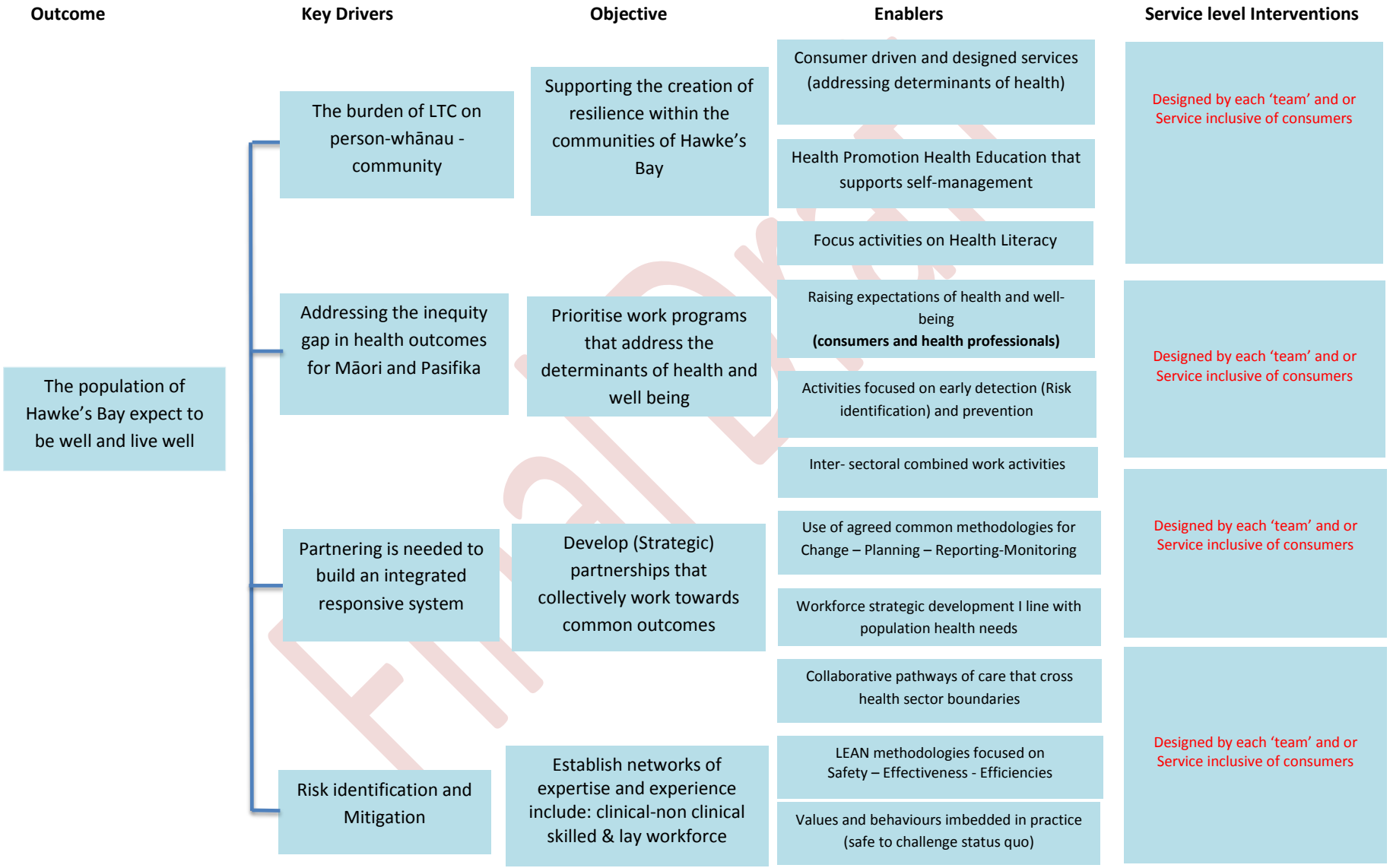
The Model for Improvement, developed by Associates in Process Improvement [21] , is a simple, yet powerful tool for accelerating improvement. This model is not meant to replace change models that organizations may already be using, but rather to accelerate improvement. The model has two parts; three fundamental questions which can be addressed in any order (refer Service Review Matrix[22]); What are we trying to accomplish, How do will we know a change is an improvement and What change can we make that will result in improvement? The strength of this cycle is it identifies specific aims, establishes quantitative measures associated with an agreed outcome (improvement) using those who use and work in the system. It does not call for whole of system change- but tests environments and builds on successes that have been achieved.

[21] http://www.apiweb.org/ (W. Edwards Demming)

[22] Long Term Conditions - Service Review Matrix (LTC-SRM) includes summary of the IHI methodology Plan Do Study Act model and questions. (Appendix Two of the SRM)

Driver Diagram (IHI Improvement Methodology)

(For - consultation)



Bibliography:

References - Local Documents:

HBDHB Transform and Sustain (Refresh), Māori Health Plan, Equity Report 2016, Healthy Eating Strategy, Draft Youth Strategy, Primary Care Strategic and Annual Plans

References - Key NZ Documents

- The 2016 NZ Health Strategy- Future direction and its Roadmap of Actions,[23] in particular Action 8 Tackle long term conditions and obesity
- Te Korowai Oranga[24]
- Equity of Health care for Māori: a Framework
- Primary Health Care Strategy
- New Zealand Disability Strategy: make a world of difference[25] (to be revised 2016)[26]
- Disability Support Services, Strategic Plan 2014-2018[27]
- Health of Older People Strategy 2002[28] (update in progress due 2016)
- Positive Aging Strategy[29]
- 'Ala Mo'ui: Pathways to Pacific Health and Wellbeing 2014–2018
- The Crown Funding Agreement and its schedules, the Operational Policy Framework and the Service Coverage Schedule and the Nationwide Service Specifications.[30]

[23] http://www.health.govt.nz/system/files/documents/publications/new-zealand-health-strategy-future-direction-apr16.pdf

[24] http://www.health.govt.nz/our-work/populations/Māori-health/he-korowai-oranga this link provides a description of its various elements – including its aim: Pae Ora– Healthy futures for Māori. Pae Ora (Healthy Futures) is the Government's vision and aim for the refreshed strategy. It builds on the initial foundation of Whānau Ora (Healthy Families) to include Mauri Ora (Healthy Individuals) and Wai Ora (Healthy Environments).

[25] http://www.health.govt.nz/publication/new-zealand-disability-strategy-making-world-difference

[26] Revising the New Zealand Disability Strategy http://www.odi.govt.nz/nzds/

[27] The Disability Support Services' (DSS) Strategic Plan, reflects commitment to the United Nations Convention on the Rights of Persons with Disabilities 2008, which aims to 'promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity'. http://www.health.govt.nz/publication/disability-support-services-strategic-plan-2014-2018

[28] The Health of Older People Strategy sets out a framework for improving health and support services for older people. http://www.health.govt.nz/publication/health-older-people-strategy

[29] The Office for Senior Citizens https://www.msd.govt.nz/what-we-can-do/seniorcitizens/positive-ageing/strategy/

[30] http://nsfl.health.govt.nz/

Specific Links

Obesity

http://www.health.govt.nz/our-work/diseases-and-conditions/obesity/childhood-obesity-plan
http://www.health.govt.nz/our-work/diseases-and-conditions/obesity/obesity-related-publications
http://www.health.govt.nz/our-work/diseases-and-conditions/obesity/weight-management-hiirc
http://www.health.govt.nz/our-work/diseases-and-conditions/obesity
http://www.health.govt.nz/our-work/eating-and-activity-guidelines
http://www.health.govt.nz/our-work/eating-and-activity-guidelines/current-food-and-nutrition-guidelines
http://www.health.govt.nz/publication/guidance-healthy-weight-gain-pregnancy

Smoking

http://www.health.govt.nz/our-work/preventative-health-wellness/tobacco-control/smokefree-2025

Health Literacy

Health Literacy Review: a guide http://www.health.govt.nz/publication/health-literacy-review-guide 2015

Evidence based research

http://www.health.govt.nz/publication/health-loss-new-zealand-1990-2013
http://www.health.govt.nz/our-work/life-stages/child-health/child-health-publications
http://www.health.govt.nz/publication/food-and-nutrition-guidelines-healthy-children-and-young-people-aged-2-18-years-background-paper
http://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/new-zealand-burden-diseases-injuries-and-risk-factors-study-2006-2016

Disease specific groups – best practice guidance

Cancers

http://www.health.govt.nz/publication/new-zealand-cancer-plan-better-faster-cancer-care-2015-2018 http://www.health.govt.nz/our-work/diseases-and-conditions/cancer-programme
http://www.health.govt.nz/our-work/diseases-and-conditions/cancer-programme/faster-cancer-treatment-programme/national-tumour-standards

Cardiovascular

http://www.health.govt.nz/our-work/diseases-and-conditions/cardiovascular-disease
http://www.health.govt.nz/publication/new-zealand-primary-care-handbook-2012

Chronic Kidney Disease

http://www.health.govt.nz/your-health/conditions-and-treatments/diseases-and-illnesses/kidney-disease
http://www.health.govt.nz/publication/managing-chronic-kidney-disease-primary-care

Chronic pain

http://www.ncbi.nlm.nih.gov/pubmed/21946879
Blythe, F. Dominick, C Nicholas, M. NZ Medical Journal (NZMJ) 24 June 2011, Vol 124 No 1337; ISSN 1175 8716

Chronic Respiratory Disease

http://asthmafoundation.org.nz/news-and-events/publications/
https://www.thoracic.org.au/
http://asthmafoundation.org.nz/wp-content/uploads/2012/03/COPDguidelines.pdf

Dementia

http://www.health.govt.nz/publication/new-zealand-framework-dementia-care

Diabetes

Living Well with Diabetes is the Ministry's plan for 2015 to 2020. It builds on this work already underway and seeks to improve outcomes for people with diabetes
http://www.health.govt.nz/our-work/diseases-and-conditions/diabetes
http://www.health.govt.nz/our-work/diseases-and-conditions/diabetes/quality-standards-diabetes-care
http://www.health.govt.nz/our-work/diseases-and-conditions/diabetes/diabetes-publications

Gout

http://www.health.govt.nz/publication/health-literacy-and-prevention-and-early-detection-gout

Mental Health and Addiction

https://www.rnzcgp.org.nz/assets/documents/Training-and-Beyond/Curriculum-Documents-2014/Mental-Health-CS.pdf
http://www.health.govt.nz/publication/rising-challenge-mental-health-and-addiction-service-development-plan-2012-2017
http://www.tepou.co.nz/outcomes-and-information/knowing-the-people-planning/31 http://www.health.govt.nz/our-work/mental-health-and-addictions
http://www.depression.org.nz/
https://thelowdown.co.nz/
http://www.health.govt.nz/our-work/mental-health-and-addictions/mental-health-publications

Musculoskeletal Disorders

http://www.arthritis.org.nz/wp-content/uploads/2012/09/fitforwork.pdf
http://www.arthritis.org.nz/wp-content/uploads/2011/07/economic-cost-of-arthritis-in-new-zealand-final-print.pdf
http://osteoporosis.org.nz/resources/health-professionals/fracture-liaison-services/
http://www.health.govt.nz/our-work/preventative-health-wellness/mobility-action-programme
http://www.health.govt.nz/publication/family-doctors-methodology-and-description-activity-private-gps
refer https://www.rnzcgp.org.nz/assets/documents/Training-and-Beyond/Curriculum-Documents-2014/Musculoskeletal-CS.pdf

Palliative care

http://www.health.govt.nz/our-work/life-stages/palliative-care
http://www.tepou.co.nz/initiatives/equally-well-physical-health/37

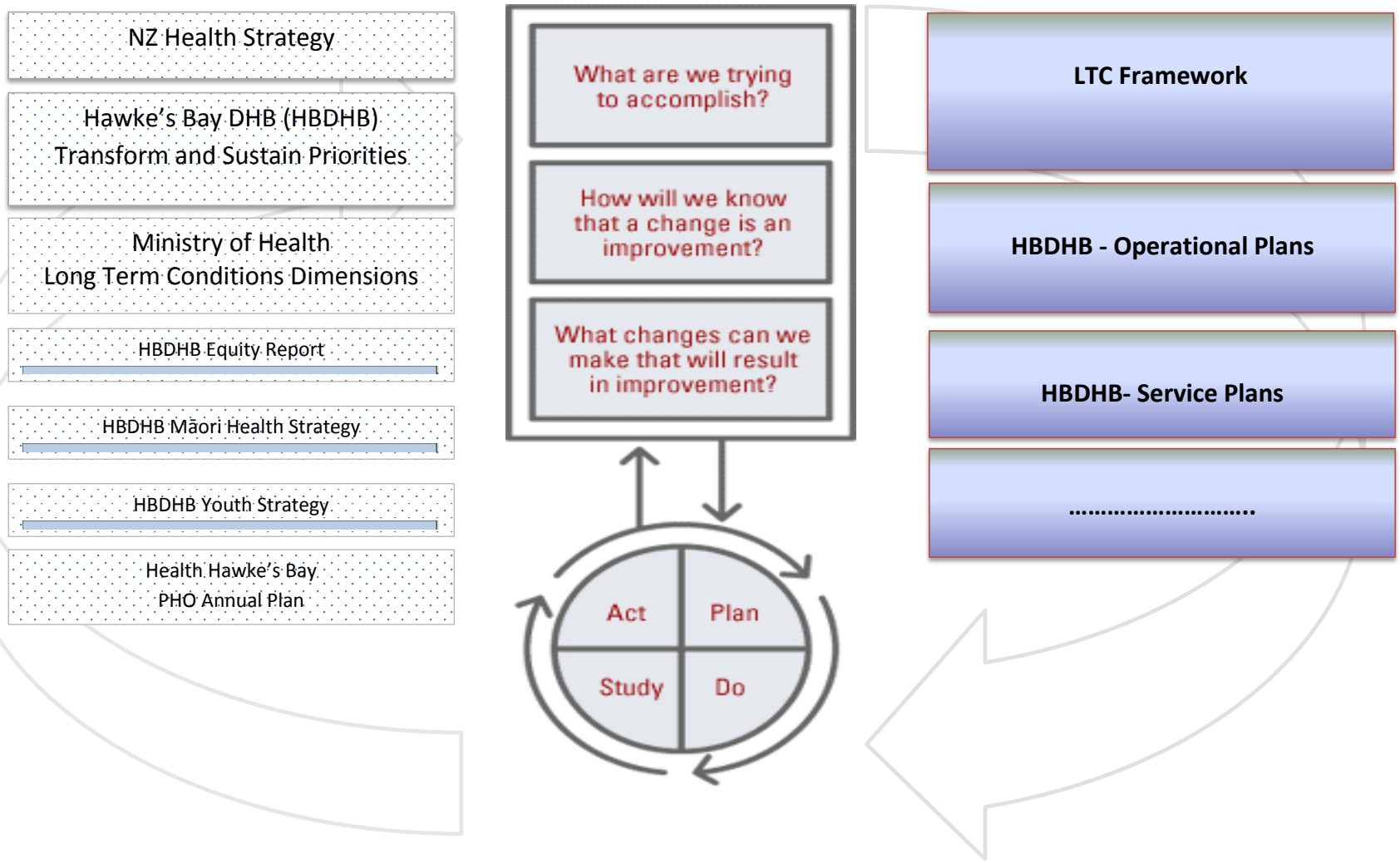
Stroke

http://www.health.govt.nz/publication/new-zealand-clinical-guidelines-stroke-management-2010

Hawke's Bay DHB
Long Term Conditions (LTCs) Framework – Appendices

Appendix One: Long Term Conditions –Service Review Matrix (LTC-SRM)

(DRAFT) completion and development by LTC Advisory Group



Strengthening an Integrated Approach to Patient Care

Background

This matrix has been developed in alignment with the Long Term Conditions Framework and in response to the need to provide an evaluative framework on which to base decision making when a service/provider:

a) evaluates performance against the Four Akas,
b) maps service capacity inclusive of both strengths and areas for development
c) economically and strategically aligns the distribution of resources and support

The Purpose

The self-review matrix is to build internal capacity within an organisation/service to self-evaluate and self-design areas for improvement. By using internal expertise with the assistance of critique of an external provider (in this instance the PHO quality leader and quality support team members or in DHB QIPS team). The process of self-evaluation and review follows the plan, do, study act model (Appendix 1) and is underpinned by results based accountability i.e. outcomes focused.

Suggested methodology

The quality review matrix is designed as a proactive evaluation framework based on evidence based thinking methodologies; results based accountability and the PDSA cycle of review.

1. **Champion Resources (CR)** are identified within each work area but should consist of no less than; x 1 GP/Consultant, x 1 Service Nurse/Registered Nurse x 1 Service Manager/Clinical Nurse Manager. **A Quality Leader (QL)** from the PHO/DHB QIPS are identified for each Service.

2. **Resources** - change management, facilitation, interview skills can be utilised to host learning conversations http://www.infed.org/thinkers/argyris.htm

3. **Suggested steps for CR and QL**
   - Work through the quality review matrix, using resources above in particular having the conversations where they feel what best fits against the component parts of the four akas.
   - Assign evidence to substantiate conclusions in line with evidence that has been identified in the matrix.
     Identify and prioritise areas for improvement. Each performance indicator; competent, proficient and excellent are divided into two levels by a number. The **lesser** number indicates **working towards** achieving at this level and the **greater number** indicates **working at this level**.
   - Findings are mapped for each work area. The results can be used to strategically and economically allocate resources, determine both individual service support and support to be provided collectively to groups of services with areas in common for development.
   - Develop an action plan to address the areas for improvement, resources needed, support required, and time frames to achieve success against the identified indicators.

The Four Aka		Components of each Aka	Notes
Aka Tahi	Person-Family-Whanau centred Care	Consumer Voice	Consumer Council and Clinical Advisory Group (PHO)
		Health Literacy	QIPS
		Self-care	Imbed work
		Understanding Determinants of health	Public Health Unit, Maori Health
Aka Rua	Person centred clinical systems and processes	Health and Social Care Networks	MOH Priorities
		Models of care development	PHO
		Collaborative Pathways	Between Providers. Integration/Outcomes
		Integrated IT systems and enablement's	IT, Business Analyst
Aka Toru	Workforce Development and Enablement	Workforces capacity and capability	Workforce Development – unregulated, careers
		Clinical Leadership	Attraction and retention of high performing staff – Nursing workforce development
		Clinical Expertise	
		Intersectoral development	Integration work with NHSP – DHB-PHOs
Aka Wha	Risk Identification and mitigation	Population Health	Public Health Unit
		Equity	HEAT
		Continuous quality improvement	Between Providers. Outcomes Focus. Show casing the 'success – bright spots' in achieving area based integration.
		Governance/advisory support	Advisory group

Definitions:

Service Generic identifier of a range of health provision agents which include hospital based services – community services – general practice

Performance Indicators:

Table 1.0 - Global Indicators (vs Individual Indicators in Table 1.1 – below)

Excellence		Improvement		Entry	
6	5	4	3	2	1
Services exhibit a systems wide approach and can be recommended as champions **to lead in ALL Akas**.		A service that is functioning at this level exhibits good practice in most areas and has evidence to support their **working towards a systems based approach - in ALL Four Akas**		A service that is functioning at this level exhibits areas of **good practice but this is reliant on individual staff vs. a systems based approach**	
Service can provide a body of evidence to support: Highly responsive to both person and population health outcomes. Strategies that have a focus on person/family/whanau centred care. Proactive engagement with external health providers enhancing outcomes (through a whanau ora approach). Seamless vertical and horizontal integration in place, with dedicated CQI activities. Attainment of 100% of System Level Measures/Operational Targets. Provision of an integrated range of services (both clinical and support, including total engagement with e-referrals, benchmarking etc.). Demonstrates an inter-professional model – of engagement and membership of professional bodies. Serious and sentinel events are managed and reported. Shared learnings conducted internally (IDT) and within external forum.		**Service can provide a body of evidence to support:** Responsive to the person's voice and demonstrates a proactive approach to gaining feedback. Some integrated models of care being used, e.g. interdisciplinary teams with appropriate utilisation of all services. Some vertical and horizontal integration in place, with dedicated CQI activities. Attainment of 80% of System Level Measures/ Operational Targets (DHB). Engagement and utilisation of clinical and support E-tools. Workforce and service planning is being developed. Able to provide and support professional student placement. Serious and sentinel events are managed and reported and used for in-service improvements.		**Service can provide a body of evidence to support:** Responsive to the person's voice and demonstrates a approach to gaining feedback. Has plans in place to develop integrated models of care to support consumer access. Minimum standard sets that have been externally validated have been achieved e.g. Cornerstone Accreditation (Primary Care), QA Health Standards Secondary Care). Attainment of 70% of System Level Measures/ Operational Targets (DHB). Engagement and utilisation of clinical and support E-tools. Provides qualified and experienced workforce at a ratio able to meet the needs of registered population. Serious and sentinel events are managed and reported	

Table 1.1 – Individual Indicators (vs Global Indicators in Table 1.0 above)

Aka One	Person-Family-Whanau Centered Care						Evidence
	Excellence		Improvement		Entry		
	6	5	4	3	2	1	
Consumer Voice	• The service has developed a range of methods to capture feedback • Information gathered relates to both generic service and specific areas of work needing a greater focus • Causal link between feedback and change within the Service is evidenced - "good ideas"		• The service has more than three ways to capture feedback. • Information from all methods is fed back to the team and used to instigate change. • There is growing evidence to show that feedback is linked to change within the service (not solely complaints)		• Basic questionnaires generating generic feedback is in place. • Evidence exists to support feedback being used to implement change. • Complaints register content discussed at Service meetings and formative actions taken		**Current surveys Consumer engagement in feedback CQI projects Meeting agendas/ action points Complaints register**
Health Literacy	• Staff qualified in providing (health) literacy training • Information developed and provided for consumers and staff is critiqued by same • Complaints do not include lack of understanding or insufficient information provision • Q &A opportunities based on the PDSA cycle - Options grids available for a range of conditions and treatments		• Planning is evident to ensure all staff are qualified in health literacy • Literacy and cultural awareness evident in all health information provided (oral and written) • Specific information caters to all population – literacy, culture, age, ethnicity • Consumer input is sought when developing (some) forms • Q &A opportunities provided and used to inform frequently asked questions – Options Grids		• Evidence exists to support planning is underway for staff to be trained in health literacy • Health Information is provided in a range of formats • Input from consumers sought when developing forms etc. • System in place that identifies and caters for differing (Health) literacy levels of ALL clients (pictorial, literary, oral)		**Patient / health information and documentation Feedback / feed forward from consumers**
Self Care	• Tailoring self-care models to meet consumers • Specific projects/programmes/initiatives demonstrate inclusiveness of consumer • MDT staff utilise individual planning e.g. care planning in primary and discharge planning in secondary care		• Demonstrating ways to ensure that people are actively involved in planning their self-management • A shared MDT understanding of what self-management support means.		• Evidence exists to support planning of the development of models of self-care • Isolated evidence where MDT have been formed and utilised		**Individual Planning/Discharge Planning Cycles of CQI**
Determinants of health	• Staff are able to articulate what cultural competence looks and feels like: for staff, for the person and evidenced in feedback mechanisms used. • Cultural perspectives are a component in all aspects of planning and analysis. • Language is not a barrier to engagement • Increased life expectancy for high needs population is identified as an outcome		• Feedback developed to explore the level of cultural competence within the work place, staff and environment • Barriers created by the health Service culture are identified and being addressed proactively e.g. social support systems		• On-going staff training in place for communication skills - culture specific. • At a glance – environment is culturally sensitive (location and use of space & information and presentation available)		**Māori Health Plan Environment Consumer focus groups Feed forward mechanisms Use of language line**

Aka Two	Person centred clinical systems and processes						Evidence
	Excellence		Improvement		Entry		
	6	5	4	3	2	1	
Health and Social Care Networks	• Partnerships in health care is evident • The Networks meet & exceeds all targets on a quarterly basis. • The Networks have proactively determined further priorities. • Outcomes for each priority are clearly identified and a plan of action is in place. • A review process can be demonstrated with the capacity for change		• Achieves within 5-10% of all System Level Measures/Targets in all four quarters. • Planning is underway in content, method of delivery, duration and target population to form an integrated approach		• Archives (inconsistently) against system level measures • Identifies areas for development and addresses recommendations. • Works proactively with guidance to develop an Action Plan. • Demonstrates improvement over time in areas identified in Service reports		**System Level Measures/Targets results** **Service Quarterly reports** **Action Plan**
Models of Care development	• All data inclusive in planning • Partnerships in health care evident • Total workforce involvement in achieving outcomes • Using principles as a basis for tests of changes e.g. implement a Stanford Model for all conditions – a model that can be promoted from all sectors		• Gaps known to staff and data is being used to analysis and plan strategies for addressing the gap • Limited links to other providers • Demonstrates fundamental transformation of the relationship between a person/carer and provider e.g. consumer satisfaction		• Gaps not known to Service staff • Few links to other providers		**Data analysis** **Consumer satisfaction** **What is working well – lean and embed**
Collaborative Pathways	• Service provides clinical leadership to assist with the development, publishing and socialising of pathways		• Service provides clinical staff to assist with the development, publishing and socialising of pathways		• Identifies staff for potential assistance with collaborative pathways		**Number of pathway participation**
Integrated IT systems	• Improvement cycles well evidenced to embrace new technology e.g. patient portal, patient held records, telehealth care (remote via phones, mobiles, internet, videoconferencing)		• Planning processes are in place to align to technological changes to support telehealth care		• No planning to keep abreast with technology changes		**IT systems- Patient Portal,**

Aka Three	Workforce Development and Enablement						Evidence
	Excellence		Improvement		Entry		
	6	5	4	3	2	1	
Workforce capacity and capability	• There is a process for the team to measure their competency (advanced) with their consumers and peers. • Staff turnover / staff rejuvenation are considered as part of sustainability planning. • Staff development, education and support are mechanisms used to promote a culture of continuous improvement.		• Team and individual performance is analysed to inform areas for improvement and effective use of skill base. • The culture of the team is forward thinking and achievement focused (e.g. use of unpaid careers/volunteers to assist with caring)		• All staff have a current job description, employment agreement and current annual performance appraisal. • Performance appraisal & performance management systems are established and utilised to enhance performance and professional development. • Areas for development are identified and actioned to ensure staff qualifications and experience is commiserate with population health needs		**Staff training programs Qualification and registration records Performance appraisals and monitoring Business continuity planning and sustainability of workforce Team functionality analysis**
Clinical Leadership	• Members of the service are involved in local, regional or national governance. • The team search out challenging opportunities to change, grow, innovate and improve. • Research and risk analysis are explored		• The service has a voice that influences clinical direction external to the Service. e.g. writing submissions, business cases. • The service has clinical leadership that is a role model to others in the team and external.		• The service has a clinical leadership structure, recognises individual contributions and celebrates team success.		**CQI initiatives Staff recognition methods Publication of evidence based articles Governance membership**
Clinical expertise	• Clinical and administration staff are supported in working to their scope of practice • Initiatives are supported and evidence based on population health needs • Senior Nurses and Nurse practitioners have clinical lead roles.		• Both clinical and admin teams utilise all electronic tools effectively and efficiently. • Systems and processes are standardised across the team and their adherence audited by clinical and admin leaders. • There is a direct link between population health needs and professional development plans of staff members. • Staff to patient ratios are managed effectively (numbers and staff competency)		• All clinical staff belong to a professional body. • Professional body competencies are met. • Induction & orientation programs in place • Reorientation of existing staff carried out as required. • Support systems are in place for new graduates, locums, newly appointed staff.		**Compliance audits Professional Dev. Plans and Education attendance records. Audits of staffing & appointment management Orientation Induction plans**
Inter-sectoral development	• The service is represented at a range of professional forums • Staff present at seminars, workshops and conferences • Staff research is published • Demonstrated goal-setting and motivational processes have created positive effects on health behaviours		• Staff attend local and national seminars and conferences pertaining to their role and share the learning at Service and network level		• Staff attend local network meetings on a regular basis to support and share learnings across their network; - Peer review teams - Service nurse forums - Service Manager forums		**Professional network membership Service meeting agendas-minutes Publications**

Aka Wha	Risk identification and mitigation						Evidence
	Excellence		Improvement		Entry		
	6	5	4	3	2	1	
Population health	• The service meets & exceeds all targets on a quarterly basis • The service proactively determines further population based priorities (risk) • Outcomes for each priority are clearly identified and a plan of action is in place • A review process (CQI) can be demonstrated with the capacity for change		• The service has designed implemented and reviewed a number of strategies • Service knows specific population (registration, risk stratification, recalls) health outcomes and are monitoring		• Data collection is set up correctly to be able to record and retrieve population and individual health data (e.g. read codes, classifications, recall systems, length of stays etc.) • Health data is reviewed routinely by the multi-disciplinary team • Strategies are being developed to address population health outcomes		**Data captures** **Dr Info access and use** **Equity Data – Maori Health data** **SLM measures** **Risk stratification Models** **CAP**
Equity	• ≥ 3% gap between MPI and NMPI in System Level Measures/Health Targets • Improvement cycles well evidenced • Partnerships in health care evident • Total workforce involvement in achieving outcomes		• ≥ 5% gap in MPI and NMPI System Level Measures/Health Targets • Service data is used to analysis and plan strategies for addressing the gap • Limited links to other providers		• ≥ 10% in MPI and NMPI health targets • Few links to other providers		**MPI vs. NMPI analysis** **(Not** Total vs. Maori
Cycle of Continuous Quality Improvement	• Proactively reviews risk factors and uses a range of risk calculators • Uses tracer (or other) audit processes to identify areas for improvement • Experiences and outcomes are shared with other providers e.g. at professional network meetings / forum • Leader in Service Continuity Planning		• Both electronic audits and internal audit processes are undertaken in an organised plan • The whole team or multi-disciplinary quality group is involved in the investigation of all incidents • Recommendations following events are used as Quality Improvement activities • Management of Major incidents – Emerging Infectious Diseases and Fire are all part of the Services continuity planning and are reviewed and updated 6-12 monthly as required.		• Accidents, incidents and near misses are recorded routinely and reviewed • Meeting agendas/ minutes demonstrate that reduction of harm forms part of CQI cycles (patients and staff) • Clinical audit is undertaken and a PDSA is undertaken • Best Practice Guidelines form the basis of all programmes and can easily be accessed.		**Incident reporting** **Trend analysis** **Action plans – CQI** **Service meeting agendas/minutes** **Action research** **Peer reviews** **Clinical audits** **Compliance audits**
Governance and Advisory	• A culture of continuous improvement exists in all areas and is not reliant on one area or one person for its progression. • Achieves and exceeds all targets • Self-managing Project Planning • Provides leadership in the development of effective programmes that address population health needs		• Business continuity/service/operational plans are current and review mechanisms in place • Achieves within 5-10% of all Health Targets in all four quarters. • Self-managing action planning based on recommendations		• Governance and advisory group formed and meet regularly • Achieves (inconsistently) against health targets but within 20% of target • Identifies areas for development and addresses recommendations. • Demonstrates improvement over time in areas identified in reports.		**Service meeting agendas/minutes** **Action research** **health target results** **Reports** **Action Plan** **Corrective Action Reports**

Bibliography:

Towards and Optimal Model of Improvement: Building Evaluative Capacity – Auckland University Education. NZ Council for Educational

Research. http://www.education.auckland.ac.nz/webdav/site/education/shared/about/schools/tchldv/docs/becsi/position-paper-1-towards-an-optimal-model-of-schooling-improvement_090907.pdf

Mason Durie (2006) *Measuring Māori Wellbeing.* Massey University. Wellington.

Model 2 Thinking http://www.infed.org/thinkers/argyris.htm

Maturity Matrix UK: (EQUIP) http://www.maturitymatrix.co.uk/ifpMM/pdf/2-IFPMM%20InfoSheet.pdf

Appendix One: LTC - Service Evaluation Summary

Purpose: The Service Evaluation Summary is tool to be utilised to summarise the analysis of the service evaluations. It acts to provide a strategic view; mapping both areas of strength and areas for development. The purpose of which is to globally look at where expertise can be shared across the 'network of services', where resources need to be allocated to strengthen capabilities.

					Excellence				Proficient							Competent							
					6		5		4			3				2			1				
	Service Improvement Team				Aka Tahi				Aka Rua				Aka Toru				Aka Wha				Service visits			
					Person Family -Whanau Centred Care				Person Centred Systems and Processes				Workforce Development and Enablement				Risk Identification and Mitigation							
Service	Quality Improvement Facilitator	Clinical	Consumer	Administration	Consumer Voice	Health and Literacy	Self Care	Understanding the Determinants of Health	Health and Social Care Networks	Model of Care Development	Collaborative Clinical Pathways	Integrated IT Systems and Enablement	Clinical Leaderhip	Clinical Expertise	Workforce Capacity and Capability	Inter-Sectoral Development	Population Health	Equity	Coninutous Quality Improvement	Governance and Advisory Support	Date last visited	Date last visited	Date last visited	Date last visited

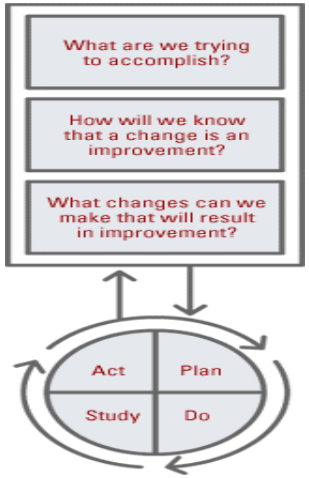
Appendix Two: LTC- Service Review Matrix – IHI Methodology

Methodology:
IHI Improvement Methodology

1. PLAN

Develop a framework on which to base the evaluation using a rubric of performance indicators.

- Use a three-scale model with each performance indicator divided into two levels.
- The higher number indicates achieved. The lesser number indicates working towards achievement.
- **Competent** is to be viewed as covering the minimum requirements to achieve the health outcomes.



2. DO

Try out an Improvement Theory
The report and the action plan

- The report should include:
  - performance in relation to each system measures/health targets
  - recognition of Best Practice that has contributed to high performance
  - recommendations for actions to improve service performance in specific areas
- Following the report being complied staff should discuss and identify areas for improvement and prioritised. **An action plan** is then developed to address the areas for improvement, resources needed, support required and time frames
- **After a period of 2-3 months the resulting outcomes are reviewed**

3. Study / Act (is a continuous review cycle)

Review the results and standardise the improvement
The action plan and reports are reviewed and assessed:

- which component parts have addressed areas that needed strengthening and **need sustaining as part of business as usual**
- Which component parts have not addressed low performance and therefore need to be revised
- What are the new areas of focus (if any) that need to be added to the action plan
- **After a period of 2-3 months the resulting outcomes are again reviewed**

Appendix Two: HEAT Assessment

Management of Long Term Conditions:

Background[1]: Key findings from the burden of disease study 2013 tells us that people are living longer with chronic long term conditions which contributes to associated disability and or challenges that face individuals needing to access care or manage their own self-care. Hawke's Bay, has significantly higher risk factors associated with the development of a chronic condition. Māori and Pasifika are over represented within this statistic.

Understanding Health Inequalities

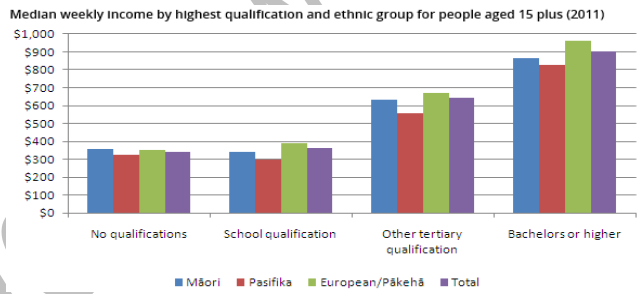
Type of Inequality	1. What inequalities exist?	2. Who is most advantaged and how?	3. Why did the inequality occur?
Consider the range of inequalities	**What do you know about inequalities in relation to this health issue?**	**Who is advantaged in relation to the health issue being considered and how?**	**What causal chain(s) lead to this inequality?**
Ethnicity[2]	Currently Māori and Pasifika peoples are over represented in all of our Health Risk Factors[3] which are listed in order of risk; Tobacco use, high body mass index, high blood pressure, high blood glucose level and low levels of physical activity. All of these risk factors contribute to premature mortality, increased incidence long term condition and co-morbidity rates. The disparity gap is greatest for smoking and high body mass index.	Female Non- Māori Pasifika (NMPI[4]) are least represented in the LTC (Generic) cohort, followed by Male NMPI, however this is dependent on the specific condition(s).	Educational levels of females (mothers) is identified as having a high impact on future population outcomes inclusive of health. A 15% gap exists between Māori (70%) and European females (85%) 18yr+ leaving school with NCEA L2 or above. The gap for males is 16%. Education leading to improved choice re employment, housing, lifestyle etc. Influence directly the determinants of health as identified below in this table.

[1] Adapted and taken from "Chronic Disease: Current Situation Analysis- (Prevalence, Morbidity and Mortality)" – Lisa Jones HBDHB Business Intelligence Team

[2] Ethnicity inequality – not counted twice – each separate component…

[3] Risk Factors listed are those identified in the Chronic Disease: Current Situation Analysis(Prevalence, Morbidity and Mortality) – Lisa Jones HBDHB Business Intelligence Team taken from the NZ Burden of Disease Study 2013 and the Health Equity Report – 2016.

[4] MPI-Maori Pasifika peoples vs Non Maori Pasifika (NMPI). This comparison is used to identify that the gap between MPI and NMPI is where health effort needs to be concentrated the most. By comparing MPI with total population we lose sight of the real difference that exists within population health outcomes.

Type of Inequality	1. What inequalities exist?	2. Who is most advantaged and how?	3. Consider the contributing factors that caused the inequity.
Levels of literacy [5]	Currently only 1:5 New Zealanders are operating at a highly effective level of literacy. The majority of Māori, Pasifika and those from other ethnic minority groups are functioning below the level of competence in literacy required to effectively meet the demands of everyday life.	Research suggests that people with high (health) literacy: • are more likely to use prevention services (such as screening) • have more knowledge of their illness, treatment and medicines • are more likely to manage their long-term/chronic condition • are less likely to be hospitalised due to a chronic condition • are more likely to use emergency services • are less vulnerable to (workplace) injury because they understand safety (precautionary) messages.	 *Source: Education Counts* Education initiatives in the last 10yrs have focused on improving literacy (numeracy) levels with a particular focus for Māori and Pasifika as they are overly represented in the low academic achievement stats, unskilled or low skilled labour workforce, unemployment and involvement with the justice services and utilisation of assisted social services. The inclusion of non-mainstream schools; Kura Kaupapa Māori and charter schools, introduction of NCEA and NZQA standards, and literacy benchmarking attempt to address the disparity that exists going forward, however the legacy of low literacy has had an impact on our current health and quality of life indicators. Low literacy levels can contribute to a lack of confidence in navigating the health systems and social support networks. This in turn contributes to the inability to access the care and support that exists and that one is entitled to.
Health literacy[6]	56% of adult New Zealanders have poor health literacy skills, scoring below the minimum required to meet the needs of the demands of everyday life. Māori who live in a rural location have on average the poorest health literacy skills, closely followed by Māori who live in an urban location. The findings in the **Korero Marama** report show that overall the majority of New Zealanders are limited in their ability to obtain, process and understand basic health information and services		

[5] Health Literacy is defined as; 'the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions' (Kickbusch et al 2005). Statistics NZ – level of Adult Literacy and http://www.healthliteracy.org.nz/about-health-literacy/health-literacy-statistics

[6] Korero Marama (2010)

Health Literacy (cont.)	in order to make informed and appropriate health decisions.		Systems and processes that have been set up without consumer input in their design, use of consumer feedback post design and analysis of data that demonstrates consumer engagement with services contributes to lack of institutional awareness of the level of (health) literacy of their client base.
Socio economic factors inclusive of wider determinants of health	The social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution and accessibility of resources at a personal (individual) and population health level. Addressing equity is about unequal distribution of resources in order to advantage the disadvantaged in order to create as close to a level playing field as possible.	Those who enjoy economic wellbeing and resilience gained through, stable and supportive family dynamics, good to excellent educational achievement, employment, and participation as a contributor to local and regional community (networks)	Limiting or limited access to education, employment and or social supports, at a personal or population level contributes to disadvantaged individuals and populations. Continuous and exponential increases in compromised quality of life indicators will directly impact on the 'resilience' of a family and or community to address, self-manage, create opportunity and work their way out of adversity. Lack of understanding around compounding factors that influence levels of resilience can contribute to inappropriate 'care and or self-care' being prescribed or expected of the person affected by compromised health.
Disability	With the onset of the development of a long term condition the level of ability to manage everyday life activities is affected. Those with one or more comorbidities have the greater challenges to face. Age will impact on the ability of the individual, partner and or whanau to manage the compromised health state of the consumer	Those with good family support, an able bodied partner, access to transportation to access care assistance, financially able to 'buy' assistance required or modify lifestyle to accommodate the condition(s). Those who have built resilience over time to cope with change and or changes in circumstance. Those who have developed self-managing skills that enable they or their family, network to problem solve presenting issues. Those who are not at saturation point in regard to the compromises they are having to make in-order to maintain a level of wellness that is acceptable to them.	By treating the person/family as a whole and addressing the items that 'matter to the person' instead of the 'condition or what is the matter with them' we will begin to mitigate, minimise and hopefully eliminate the impact that their change in health status has on their ability to enjoy the lifestyle of their choosing.

Type of Inequality	1. What inequalities exist?	2. Who is most advantaged and how?	3. Consider the contributing factors that caused the inequity.
Age - 65+	At the age of 35yrs the prevalence and onset of Long Term Conditions increases. This is particularly relevant to Māori (Female).		Contributing factors that lead to the onset of Long Term Conditions is believed to begin as early as pregnancy. Lifestyle influenced or compromised by low education levels, which contribute to economic well-being impact on the capacity of individuals and whanau to choose well in in terms of health choices.
Gender	There is approximately a 10% differential between (Māori) Male and female risk factors within the HBDHB demographic	Females are advantaged	Screening programs for females and the incidence of attendance of general practice by females presenting with whanau who are unwell has had an impact on female visibility to health professionals. On average attendance differentials between male and females is a 75:25 ratio. Screening is the first point of prevention, risk identification and management. Lack of screening impacts on both the identification of risk factors and the timeliness (acuity) of the person's health status when they engage in and access active management.
Mental wellness[7]	Many people with long term physical health conditions also have mental wellness issues. This can lead to significantly poorer health outcomes and reduced quality of life.	Those with a single long term condition (1:5 of the 4:5 adults who have a Long Term Condition. Those with high levels of resilience, low acuity, early stages and highly skilled in self-management. Those with high health literacy Those with good whanau support	In providing disease specific health care we overlook the holistic approach that should be engendered with Long Term Conditions. People with long term conditions and co morbid mental health problems disproportionately live in deprived areas and have access to fewer resources of all kinds. The interaction between co-morbidities and deprivation make a significant contribution to generating and maintaining equalities.
Access to health care services[8]	Those living in rural communities.	Those living within easy driving distance to services required. Those living in an area with good mobile / outreach services. Ability and desire of people to have residences in areas with easy access to services.	Residence of choice or determined by full range of health determinants. Economies of scale –as determined financially viable by the DHB Attraction and retention of staff.

[7] The King's Fund and Centre for Mental Health 2012 - https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/long-term-conditions-mental-health-cost-comorbidities-naylor-feb12.pdf

[8] This section ONLY covers physical access as all other barriers to access have been identified above e.g. socio economic section/health literacy, gender et. al.

Level	Determinants with associated possible interventions (May or may not be the responsibility of the health system)
Structural:	**Based on consumer and service feedback gathered in the consultation process (See Appendix 2 – LTC Framework)** **Education -** Healthy families, confident in their own identity, able to make choices that suit their own individual context is the focus of Ka Hikitia – Māori education strategy, designed for the purpose of Māori achieving success as Māori. Literacy and numeracy project have been introduced to the education system to address underperformance of all students. Valuing kaupapa Māori education – within a Te Ao Māori framework has also been identified as mechanisms to ensure that tailored responses to differing needs within our population are needed instead of the 'one size fits all' model of thinking. **Access points – multiple and varied –** consumers consistently repeated the same messages. They want multiple access points to health care/support at varying levels. This included; hours including late nights, early mornings, weekend clinics, and the ability to – phone – email – visit or have someone visit them were needed. The use of IT – web based patient portals were seen as only being advantageous. This was reaffirmed in Wairoa – by and 82yr old male who said "My patient portal is the best thing out – time saver and ease of access to all the information I need. I'm not that stable on my feet so coming in to town can be a real issue." A recently unemployed forestry worker was quick to mention that he had no time off if working in Forestry to get to the doctor – early morning starts – long hard days – relying on forestry transport all were factors contributing to intermittent access to care. **Utilisation of regulated health and non-health/non-regulated workforce –** the consumers wanted the right people with the right skills to support them in taking care of themselves but what was most important was the right fit of person. Diversification of our workforce (bi and multicultural) was identified as a need. The right fit also extended to what level of expertise was needed and the use of non – regulated workforce to provide levels of care appropriate to the consumer. Youth for example are wanting to engage with people with an affinity for youth issues and do not need to see a GP when their needs can be managed and or coordinated by a range of other staff – Nurse practitioner – Youth social worker – Youth counsellor. Navigation of the system was identified as a need. This can be achieved through advocating for an interdisciplinary team approach to care / support. **Interdisciplinary approach to care/support – using a wellness model –** the Long Term Conditions Framework advocates for an holistic wellness approach to care based on the Four Aka. In order for care not to be focused solely on the condition but on the consumer and whanau leads to the need to have an interdisciplinary approach. - **Generic approach not disease specific –** the incidence of consumers with co morbidities dictated to the framework that what is needed is a generic approach to care. The consumer wants a primary – centralised coordinator of their care that can provide access points to specialist care as and when needed. - **Mental health focus:** Care for large numbers of people with long-term conditions will improved by better integrating mental health support with primary care and chronic disease management programmes, with closer working between mental health specialists and other professionals. Service commissioning groups should prioritise integrating mental and physical health care more closely as a key part of their strategies to improve quality and productivity in health care.

Intermediate Pathways: *Material, psychosocial and behavioural factors. The impact of structural factors on health*	**Patient and relationship centred care –** is the response that is needed to tailor care and support for consumers that will engender ease of access to all stages in ones' healthy development. Taking into consideration quality of life measures as well as clinical measures to guide the health workforce and consumer as to 'what matters to them most' as a means of directing what type of care is needed – against an agreed set of priorities dictated by the consumer but advised and supported by the health professional. **Raising consumer expectations –** By not accepting that health inequities is an expectation if you are Māori or Pasifika and or in a group that is not experiencing equitable health outcomes (aged , disabled, living in remote areas, male) we address the issue from the consumer demand perspectives. This can be achieved through; - **Dis-establishing myths -** that exist about conditions that you should or should not expect if you fall into a particular population or age group. - **Raising health literacy -** becoming a focus of all information that is shared in a transformational vs transactional manner with the first step of finding out what is 'known to the consumer' before exchanging information that is intended to grow that information that will lead to greater understanding and self-determination in decision making - **Creating multiple avenues to enhance self-management –** by examining and evaluating the paternal aspect to health care provision, based on the level of acuity required of the consumer at any given time, we create the opportunity for the consumer to be the decision maker in their own care. If all the above is considered in the determination of the care and support that is needed then we create the right environment to implement – co designed models of care that have had the receiver and provider of care involved in its design process.
Health and Disability Services	**Flexible services** that can respond to variability in baseline health status and needs (mental and physical) - (see interdisciplinary teams above) **Risk mitigation**- Promotion of CQI initiatives that focus on snap shot tracer auditing that examine the pathway / care journey of the patient to identify routinely areas for improvement without them being attached to or a response to an incident – accident or death **Promoting the use of the Health and Disability advocacy service** – and taking learnings from any investigations or cases
Impact: *the impact on socioeconomic position*	Work with national, regional and local health promotion teams Work with ACC and other funding bodies that support employment and understanding of the determinants of health for those with a disability Cross-sector initiatives to co-fund tailored packages of care inclusive of MSD as a funder of subsidies and benefits for consumers Fund existing community providers to care for consumers building capacity and capability within our available work force Work with local education providers to inform curricular content, education pathways and career pathways Ensure step-up, step down options and the flexibility to do so within the patient journey of wellness and un wellness.

Pathway (AKA)	Questions	Responses
Tuatahi – *Developing whānau, hapū, iwi and Māori communities*	*How have Māori been involved in the use of HEAT?* *Have Māori health inequalities been fully considered?*	The focus of the framework is to address equity and gap in health outcomes Consumer consultation was representative of our demographic profile for Hawke's Bay. Wairoa – consultation group – 70% Māori and chosen due to its high Maori population as well as high needs in relation to Long Term Conditions. PAG included 3 Māori members Consumer council members represented our rural isolated communities (Parangahau)
Tuarua – *Māori participation in the health and disability sector*	*How will you involve Māori in the health and disability service interventions?* *How will you build Māori workforce capability?*	Health and disability service: engage the 'right fit of person to work with the individual engaged in any service intervention. Utilise the kaitakwaenga who have recently been appointed within the Maori health team. Ensure consumers know they can request a change of person – should the right fit not be achieved (Code of Rights) Workforce development forms part of Aka toru – workforce development and enablement.
Tuatoru – *Effective health and disability services*	*How will you ensure that the health and disability service intervention(s) proposed are timely, high-quality, effective and culturally appropriate for Māori?*	Identify this in the service plans and use the driver diagram (LTC Framework figure 1.0) to ensure that activities engaged in by services align to high level outcomes and objectives; example provided is – addressing the inequality gap in health outcomes for Maori and Pasifika with the enabler identified as – prioritising work programs that address the determinants of health
Tuawhā – *Working across sectors*	*How will you work collaboratively with other sectors to reduce Māori health inequalities?*	The inter sectoral approach of the health and social care networks in conjunction with the multidisciplinary approach to providing non disease specific care to those with or at risk of having a Long Term Condition.

Questions	Responses
Health inequality outcomes	System level measures and contributing measures identified in Aka Tahi Use of quality of life tools to measure non clinical outcomes for consumers Reduction to within 5% of gap between Māori and non-Māori
Groups Benefiting	Those with long term conditions – who are then able to access interdisciplinary teams and increase their confidence in their self-management.
Unintended Consequences	By focusing on generic approach – specialised care may be impacted on. The time frame leading up to high functioning IDTs may impact on patient care coordination. Workforce capacity and capability to work in a generic approach will need lead in time and to be managed well.
Risk Mitigation	Establish a LTC advisory group inclusive of Māori and Pasifika members Support and monitor service plans and operational management Work closely with the QIPS team to ensure systems for improvement are in place Ensure clinical leads are in place to manage care and coordination of care

How will you know if inequalities have been reduced?

By ensuring that all data is presented in MPI vs NMPI (not MPI vs Total population which masks the gap)

- Outcomes measures identified and monitored against each of the "Teams of Practice" or Service targets
- Utilisation of the System Level Measures and the contributing measures to map progress towards agreed outcomes

Reduction in the gap between MPI and NMPI

- Across the board

Appendix Three: Consultation Record - Long Term Conditions Framework

Health Faculty / Area	Person	Date	Version	Resulting modification to the document
GM – Primary Care CEI- PHO	Mark Petersen / Liz Stockley	July 2016	5	Include MDT approaches (in particular community pharmacies), thread through mental health wellness and youth.
QIPS	Jeannette Rendle/Adam MacDonald	July 2016	5	Resonance consumer voice and health literacy
Maori Health	Patrick LeGeyt	July 2016	5	Meaning of the tree: • (White pine – roots intertwined/interdependencies) Need to include HEAT Data to reflect Maori Link Social connectedness
Strategic Services/CFO	Mary Wills, Tim Evans	Aug. 2016	6	On track – aligns Transform and Sustain/Links to Annual Plan/Clinical Service Plans
Medical Directorate	Paula Jones, Colin Hutchinson, David Gardner	Aug. 2016	6	Keep it generic/Link it to Service Plans – Key areas: LTC/CP/Discharge Planning and E-Referrals/People to take ownership
PHO Boards	PPC CAG Innovation & Development Team	August 2016 To be presented August 2016	4 7	Instead of consults – make sure use engagement/ Preventative Model Focus on self-management Data to be inclusive of Pacifica
PHO	Trish Freer, Faye Milner	August 2016	8	Comments: - supportive to work on next phases
Nursing Leadership	Chris McKenna	September 2016	8	Portray engagement with Primary care Workforce
Consumers	Mental Health - PAG		9	Comments captured and documented - Refer to Appendix 2
Consumer	Husband and wife (both with LTCs)	September 2016	10	Comments captured and documented – Refer to Appendix 2
Executive Management	Andy Phillips/Sharon mason	October 2016	12	Relationship Centred Care – Staff Resilience
GP-medical Advisors	Kerryn Lum, KJ Patel, Jane Nash	October 2016	13	Finished product – easy read for all – watch the language and use of it – e.g. SLM? – What does this mean to GPs? /align the funding with diagnostics/capabilities – how will document remain responsive – how will it become real?

Nursing	Hastings Health Centre Taradale Health Centre	October 2016	12	Framework is structured
QIPS Team	Team members	October 2016	13	Will link to their work – 4000 days campaign
Hauroa Heretaunga – Nursing	Julia Ebbett	October 2016	13	What will success look like, definitions of self-care/self-management/thread through ACP/Not more but better/Right language or otherwise will disengage/ use of workforce capabilities in differing ways new roles e.g. navigator.
Consumers - Wairoa	14 consumers attending hui	October 2016	15	Comments captured and documented - Refer to Appendix 3
EMT	Executive Management Team	November 2016	16	Length of document. Order in which information presented. Generalist statements around burden of disease.
EMT	Clinical members of EMT	November 2016	17	Remove snap shot views. Include executive summary. Reframe statements to reflect better utilisation of upstream services vs cost reductions that will lead to reduced; ED Presentations, ED Admissions and Length of Stay.

Generic feedback gained through conversations and interactions with:

- Community members / consumers from Parangahau - Central Hawke's Bay

Appendix Four: Consumer Feedback Summaries

Aka Tahi	Components of each Aka	Objectives	What would success look like to you if this was done well?
Person - Family - Whanau centred Care	**Consumer voice**	Consumers are integral to the design and evaluation of services	**We want to be:** • Updated regularly – either verbally or in written material • Represented on DHB Committees and encouraged to be active and contribute • Valued for their contributions. Reponses to the voice to be immediate and appropriate. • Compensated for our contribution • Right person/right fit and to be listened to (there are differing ways to communicate) • When making changes they reflect on the consumer – we want to be involved with decision making • What is the first language/Te reo
	Health Literacy	Health literacy improvements enhance access and navigation to health services by the consumer	**We want:** • No jargon, simple language e.g. "Pertussis versus whooping cough" or "Influenza – why not just say flu" • Talk back concept and sometimes we may want to be in pairs • If the literacy is to our level we are more willing to ask for help • More assistance with navigator's e.g. Kaitakawaenga/WINZ/Social Services • Knowledge of what other providers can do for us • Language line/Health Internet that is readable • Up to date information provided for us that includes; - Welcome packs – informing of length of stays, information for family/whanau, consumer rights, - Information about our personal health e.g. medications, our key worker and our key physician and choices if we don't like the people we are to be cared for etc. - Simplistic language about medication management – if you take this, it will do this so what happens
	Self-Care	Consumers are supported to self-manage to their highest level of confidence	**We want:** • We need to take self-responsibility, manage our own care and be less dependent on health system and make our own choices • What matters to me • Needs to be holistic • Needs to have an outcome

Aka Rua	Components of each Aka	Objectives	What would success look like to you if this was done well?
Person Centred Clinical Systems and Processes	**Understanding the determinants of health**	Health professionals implement health strategies based on an understanding of the determinants of health	**We want:** • To be treated as a whole person not broken down into departments e.g. medical, mental health etc • Acknowledgement that just because I have a mental health issue that it may not be this issue that brings me to care • Reassurance that some medical problems are not dismissed or overlooked when seeking help e.g. pain, chronic fatigue, skin problems • Reassurance that communication is occurring between Providers of my care – right team of people - is there ethical dilemmas over confidentially? • Take health into the workplace – "we cannot get off work for a day to have a blood test" • "No more form" filling – lets us do it once only • To connect and have one system – health, social and education • Transport – cost of Ambulances • Hubs of services together under one roof e.g. NGOs/Heart Foundation/Breathe HB
	Health and Social Care networks	Collaborative networks developed providing services closer to home utilising a MDT[9] and inter-professional approach.	
	Models of care development	Building health services around the person using a whanau ora model of care and whole of workforce approach.	**We want to be:** • Linked up immediately with other agencies that support the healing of a person and plus supports our family • Agencies would work as a whole and not in iodation – this means we don't need to repeat our stories • Agencies have the same access to personal records – no replication of information • Access, independence and "free" • Face to face is important • At 82 years I support and can use the patient portal • Extended hours of services, not only GPs but pharmacy, laboratory • Don't want to be the "click the ticket" or check for check sake • Someone to help us navigate through – so it is seamless
	Collaborative clinical pathways	Development, implementation and review of clinical pathways that demonstrate integration of care	**We think:** • Bringing the Agencies together with the person at the centre – share resources, knowledge and information.

[9] MDT: Multi-Disciplinary Approach (Health, social and community based services)

	Integrated IT systems and enablement	Information Systems, and IT are easy to use, accessible and utilised at all levels for the purpose of system wide improvement.	**We want:** • Single person record • All to have access to our records in shared way. • Records need to be constantly updated especially when one Agency has information and the other does not know yet • Accuracy of data e.g. READ codes

Aka Toru	**Components of each Aka**	**Objectives**	**What would success look like to you if this was done well?**
Workforce Development and Enablement	**Clinical leadership**	Identified clinical leaders provide direction, support and accountability for the uptake and dissemination of best practice models to optimise patient care.	**We think:** • Constant personal development should take place for all staff • Training to be mandatory and staff be on full pay when up-skilling • Clinicians to travel worldwide to conferences and have full access and support to do technical, scientific, medical and humanities training
	Clinical expertise	Clinical staff, medical and nursing, provide services to the top of their scope supported by best practice guidelines under the direction of identified clinical leaders.	**We think:** • Staff should have access and training to alternatives therapies • Staff should be exposed and supported to learn from other cultures, countries and societies • Clinical leaders should be accountable to consumers groups e.g. PAG and to be flexible and adaptable
	Workforce capacity and capability	The workforce, inclusive of the lay workforce are able to work at the top of their scope with adequate support from the sector to achieve optimal patient care.	**We think:** • Supervision would be compulsory every 4 weeks for staff working in mental health including nurses, care associates, key workers and clinical team • Supervision should be tailored fit i.e. staff could chose who they would like as supervisor and the supervisor "constant" for contact • On demand supervision would be available when requested by staff
	Inter-sectoral development	Patient care is maximised through the utilisation of a MDT approach to individualised care.	**We think:** • Every shift should have time for debrief – not only crisis but day to day events • Regular staff meetings • Integration of all Teams (rural not working in isolation)

Aka Wha	Components of each Aka	Objectives	What would success look like to you if this was done well?
Risk Identification and Mitigation	**Equity**	Addressing the gap in patient outcomes is addressed actively through targeted approaches to the delivery of care.	**We want:** • Maori decision making • Recognise the treaty and reflect this in workforce • Funding to address the equity gaps • Wairoa's fit is unique • Address access issues • Better transport for our disability – e.g. a bus that travels to Napier is fit for disabilities
	Continuous quality improvement	Innovative practice is supported. Recognised improvement methodologies are used to achieve evidence based enhanced patient outcomes.	**We want:** • Person and relationship centred care • Advertise technology to support health needs e.g. "time reminders in phones for insulin"
	Governance and or advisory support	The support of an advisory group is used to evaluate services and advise on service design and improvement	No Comments recorded

***Consumers consulted in this exercise were:** Patient Advisory Group (Mental Health), HBDHB. Consumer Group from Wairoa. Consumer Council members: Graeme Norton. Consumers of services: Rosemary and Terry Marriot, CHB consumer and consumer council members, feedback from Parangahau in relation to CHB Network.

Appendix Five: Financial Summary

Purpose: To provide an indicative base line figure for the current spend in relation to Long Term Conditions. In a strategic landscape – what shift in spending needs to be planned for move the ratio of spending away from acute (Get well) Hospital and (Stay Well) Rehabilitation and Support Services and move towards (Start Well) Prevention and Detection and Management Services over time. **Figures quoted below are - $000s**

Shifting resource to support diminished demand on acute services through greater utilisation of up-stream services

The Current State - Long Term Conditions				
Start Well		**Get Well**		**Stay Well**
Prevention	**Detection and Management Services**	**Intensive Assessment and Treatment**		**Rehabilitation and Support Services**
Public Health	**Primary Care**	**Hospital**	**Out of District**	**Community**
$5,311	**$7,810**	**$22,082**	**$27,701**	**$6,555**
8%	**11%**	**32%**	**40%**	**9%**

Future State			
20%	**20%**	**60%**	**10%**

Financial Assumptions: (Provided by financial accountant)

Long Term Conditions costings have been based on a 15% calculation of the total health spend. This is based on the % population with one Long Term Condition. It is estimated that the prevalence of co morbidities would affect up to 35%. Assumptions therefore had to be made when estimating the costs. See full list of assumptions below:

The top five long term conditions; CVD, Respiratory, Cancers, Diabetes and Musculoskeletal have been used to gauge spend.

Long term Conditions - Primary, Hospital, and Community costings:
A % relating to LTC based on LTC Hospitalisations for HB domiciled patients for 2011 to 2013 as documented in Lisa Jones Report (2015) QIPP LTC Supporting the local implementation of the Year of Care Funding. Model for people with long-term conditions (2012).

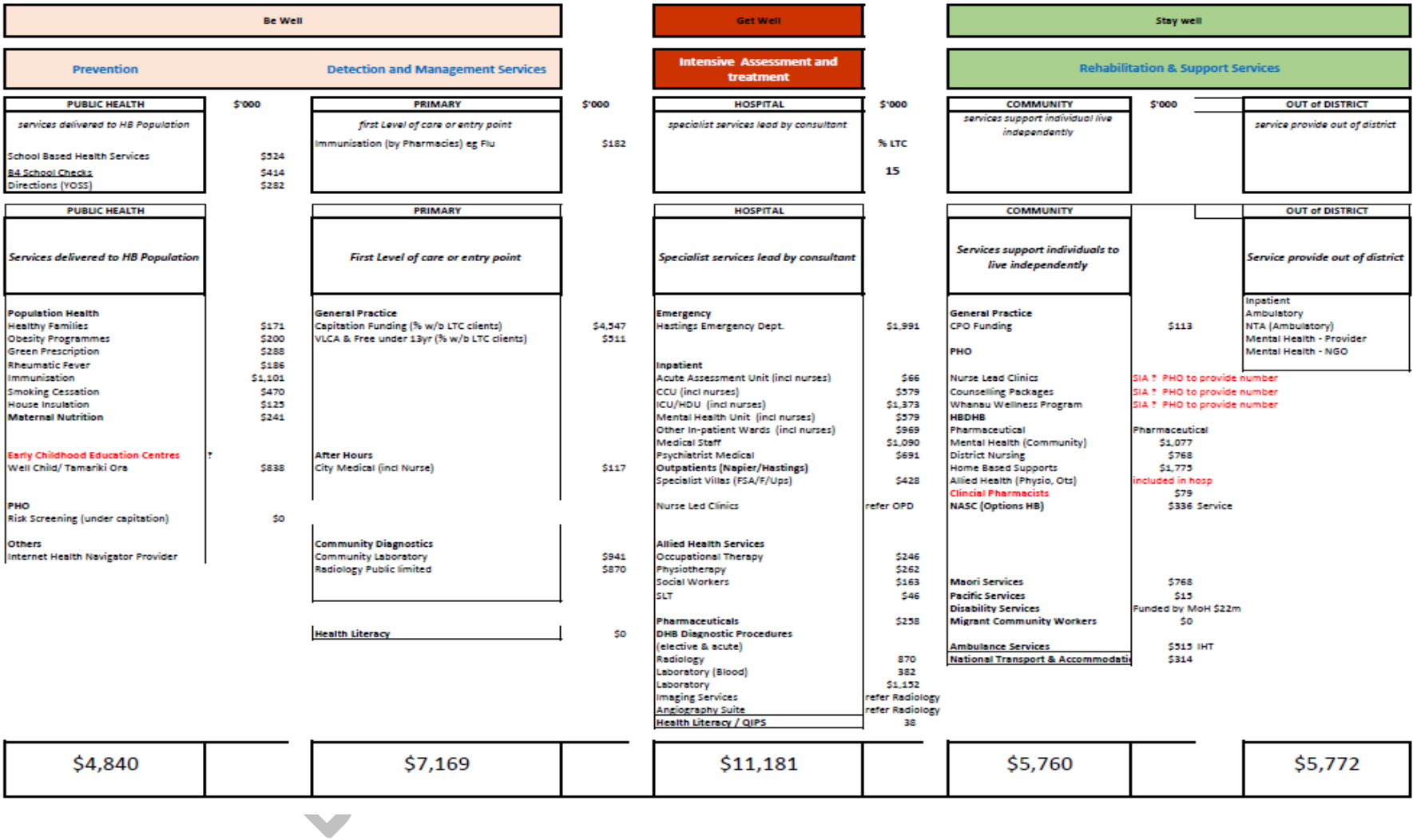
Total LTC Hospitalisations for HB domiciled patients 2011 to 2013, Per Chronic Conditions dataset from Business Intelligence
Includes the following: Musculoskeletal Disease, Diabetes Complications- Renal Failure, Diabetes, Ischaemic Heart Disease, Stroke, Asthma, COPD, Cancer (No=17479)
Total Discharges for HB domiciled patients for 2011-2013 (dataset from Business Intelligence) (no=118971)
Note these figures are per HB domicile of patient rather than per location of service which the $ are based on.
Equates to – estimated 15% of total spend.

Out of district costs are based on IDF data. A full summary is provided in Appendix Five for IDF
Public Health spend is calculated at 100% of budget due to it being too difficult to determine which are LTC and all are preventative and general in nature.
IDFs are classified between various LTC conditions, and therefore no further apportionment is required.

As information is captured at a higher level it is difficult to itemise costs to specific conditions. Therefore, only costs which can be clearly attributed to a specific condition e.g. Haemodialysis to Diabetes are shown under specific conditions. Generic amounts capture costs not able to be itemised.

Exclusions
Residential Care costs are excluded as typically relate to people over +65 and are difficult for the DHB to control.
Paediatrics (Hospital & IDFs) excluded from analysis as unable to confirm conditions are long term at this stage.

Generic Spend **LONG- TERM CONDITIONS GENERIC**
Excludes Paediatrics



Be Well				Get Well		Stay well		
Prevention		Detection and Management Services		Intensive Assessment and treatment		Rehabilitation & Support Services		
PUBLIC HEALTH	$'000	PRIMARY	$'000	HOSPITAL	$'000	COMMUNITY	$'000	OUT of DISTRICT
services delivered to HB Population		*first Level of care or entry point*		*specialist services lead by consultant*		*services support individual live independently*		*service provide out of district*
School Based Health Services	$524	Immunisation (by Pharmacies) eg Flu	$182		% LTC			
B4 School Checks	$414				15			
Directions (YOSS)	$282							
PUBLIC HEALTH		PRIMARY		HOSPITAL		COMMUNITY		OUT of DISTRICT
Services delivered to HB Population		*First Level of care or entry point*		*Specialist services lead by consultant*		*Services support individuals to live independently*		*Service provide out of district*
Population Health		**General Practice**		**Emergency**		**General Practice**		Inpatient
Healthy Families	$171	Capitation Funding (% w/b LTC clients)	$4,547	Hastings Emergency Dept.	$1,991	CPD Funding	$113	Ambulatory
Obesity Programmes	$200	VLCA & Free under 13yr (% w/b LTC clients)	$511					NTA (Ambulatory)
Green Prescription	$288			**Inpatient**		**PHO**		Mental Health - Provider
Rheumatic Fever	$186			Acute Assessment Unit (incl nurses)	$66	Nurse Lead Clinics	SIA ? PHO to provide number	Mental Health - NGO
Immunisation	$1,101			CCU (incl nurses)	$579	Counselling Packages	SIA ? PHO to provide number	
Smoking Cessation	$470			ICU/HDU (incl nurses)	$1,373	Whanau Wellness Program	SIA ? PHO to provide number	
House Insulation	$125			Mental Health Unit (incl nurses)	$579	**HBDHB**		
Maternal Nutrition	$241			Other In-patient Wards (incl nurses)	$969	Pharmaceutical	Pharmaceutical	
				Medical Staff	$1,090	Mental Health (Community)	$1,077	
Early Childhood Education Centres	?	**After Hours**		Psychiatrist Medical	$691	District Nursing	$768	
Well Child/ Tamariki Ora	$838	City Medical (incl Nurse)	$117	**Outpatients (Napier/Hastings)**		Home Based Supports	$1,775	
				Specialist Villas (FSA/F/Ups)	$428	Allied Health (Physio, Ots)	included in hosp	
PHO						Clincial Pharmacists	$79	
Risk Screening (under capitation)	$0			Nurse Led Clinics	refer OPD	**NASC (Options HB)**	$336 Service	
Others		**Community Diagnostics**		**Allied Health Services**				
Internet Health Navigator Provider		Community Laboratory	$941	Occupational Therapy	$246			
		Radiology Public limited	$870	Physiotherapy	$262			
				Social Workers	$163	**Maori Services**	$768	
				SLT	$46	**Pacific Services**	$15	
						Disability Services	Funded by MoH $22m	
		Health Literacy	$0	**Pharmaceuticals**	$258	**Migrant Community Workers**	$0	
				DHB Diagnostic Procedures				
				(elective & acute)		**Ambulance Services**	$515 IHT	
				Radiology	870	**National Transport & Accommodati**	$314	
				Laboratory (Blood)	382			
				Laboratory	$1,152			
				Imaging Services	refer Radiology			
				Angiography Suite	refer Radiology			
				Health Literacy / QIPS	38			
$4,840		$7,169		$11,181		$5,760		$5,772

DRAFT

Long Term Conditions Cardiovascular (refers to conditions that involve narrowed or blocked blood vessels that can lead to a heart attack, chest pain (angina) or stroke).

adult heart disease(Leigh to defn) & WvS $

Be Well		Get Well	Stay well	
Prevention	Detection and Management Services	Intensive Assessement and treatment	Rehabilitation & Support Services	
			$'000	$'000
PUBLIC HEALTH *services delivered to HB Population* **Population Health** Screening **Others** Heart Foundation Stroke Foundation Te Hotu Manawa Māori Patu (one off)	**PRIMARY** *first Level of care or entry point* **General Practice** Echocardiograms (primary) Heart (CVRA) Check Target Funding **Comm Diagnostics** ECG (private)	**HOSPITAL** *specialsit services lead by consultant* **Emergency** Thrombolysis Amputations (PVD) **Inpatient** Medical Day Ward Blood Transfusions) Stroke Unit **Outpatient** Neurovascular Clinic (Stroke) **DHB Diagnostic Procedures** Imaging Services (CT) Angiography Suite Echocardiography Holter Monitoring Stress Test & Cardioversions CCU / interventions	**COMMUNITY** *services support individual live independently* **HBDHB** Cardio Rehab Oxygen Therapy Rehab. Services Nurse Practitioner (CHF) Clinical Nurse Specialist (CHF) **PHO** Stanford Model **Maori Services** Maori Diabetes and CVD Funding	**OUT of DISTRICT** *service provide out of district* Inpatients $10,752 Ambulatory $48
???				
Costings: (Estimated Costs)				
$0	$0	$0	$0	$10,800

Research/Literature Report on NZ Cost of Illness Studies on LTC 2009

Coronary Heart Disease

Direct cost $179 million (Scott: 1993)
Direct included: ambulance, hospital, diagnostic tests, private consultation costs, medicine and dispensing costs)
Hospital stays main contributor of direct costs
Direct outnumbered indirect by 10:1
Indirect $14-$24 million
Indirect included: lost productivity, medical research and health promotion
Intangible costs: $114 -$264 million - calculated by costing the loss of lie
Under willingness-to-pay approach, intangible costs increased to $14,568 million

Ischaemic Stroke
Direct costs $93-$140 million (1992) (Scott and Scott 1994)
Direct costs 10 times more than indirect
Hospitial and continuing care account 90% of all costs

DRAFT

Long Term Conditions Musculoskeletal (to restore and/or maintain the function of the musculo-skeletal system, due to trauma, congenital developmental abnormalities, and degenerative or disease processes)

Be Well		Get Well	Stay well
Prevention	Detection and Management Services	Intensive Assessement and treatment	Rehabilitation & Support Services

PUBLIC HEALTH *services delivered to HB Population*	PRIMARY *first Level of care or entry point*	HOSPITAL *specialsit services lead by consultant*	COMMUNITY *services support individual live independently*	OUT of DISTRICT *service provide out of district*	$'000
Health Promotion	**General Practice**	**Emergency**	**HBDHB**	Inpatients	$1,548
Falls		Spinal Injuries	Orthotics	Ambulatory	$19
		Chronic Pain	Clinical Nurse Specialist	Queen Victoria Hospital	$53
		Inpatient	District Nursing (wound mang)		
		Spinal Urodynamics	Rehab. Services		
Falls & Fracture Working Group		Wound Costs: Pressure Area Management	**ARC**		
ACC Provider		AT&R Services	Additional Pressure Aream wound consumables		

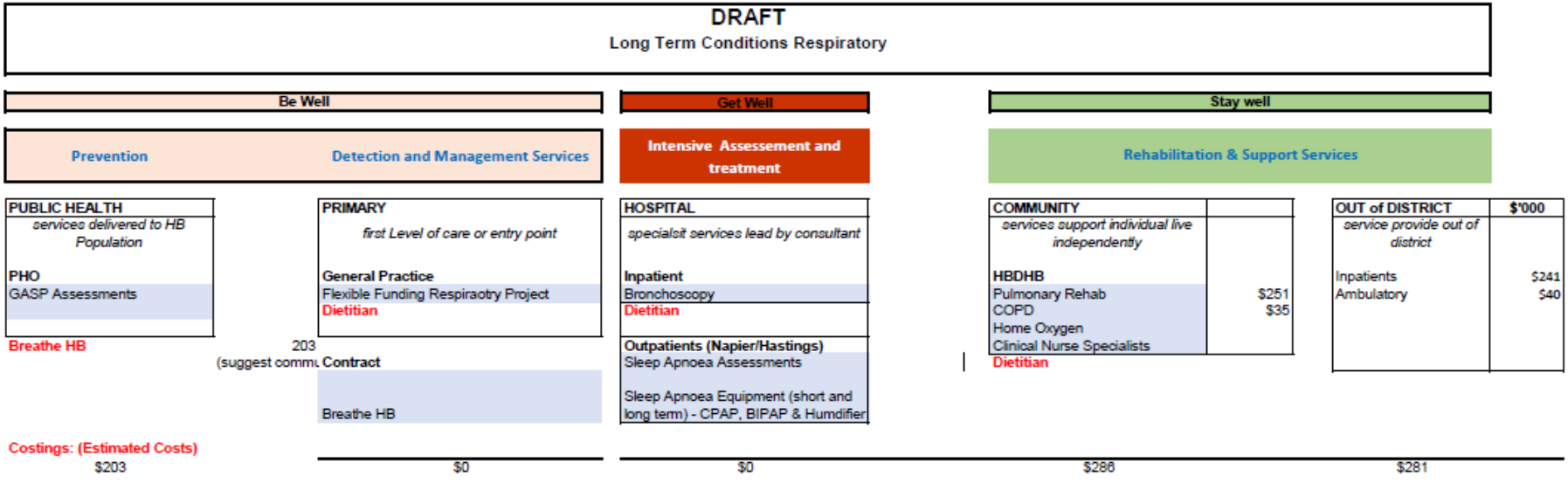
Costings: (Estimated Costs)				
$0	$0	$0	$0	$1,620

Research/Literature Report on NZ Cost of Illness Studies on LTC 2009

Arthritis

NZ Direct costs $564 million (Arthritis NZ and Access Economics 2005)
Direct: Health costs represented 1/3 of above
Indirect costs: $1,788 million - out weigh direct health costs more than 3:1
Intangible costs: $2,560 million

Osteoporosis
Direct costs $1, 159 million (Brown et al (2007)
Costs dominated by treatment - musculoskeletal, back problems and curvature of spine
Immediate # treatment and after $300million - dominated by pharmaceuticals



Research/Literature Report on NZ Cost of Illness Studies on LTC 2009

Asthma

NZ Direct costs: $102 million 1998/99 (Mitchell 1989)
$17 million - Hospitial (did not include oupiateitn or ED attendances)
$85 million pharmaceutical

COPD
NZ Direct costs: $103-$192 milion (2002)
Hospitalisations were the highest costs items - 63%
Pharmaceuticals account 15% of costs

Lung Cancer
NZ Direct costs $18-$28 million
Hospitalisations were 2/3 of costs
Palliative care costs more expensive than pharmaceuticals

Obstructive Sleep Apnoea
Direct cost $29 million (Scott 2007)
Direct accounted fr hoostal, outpatient, GP visits, surgery, appliacne, tansport
Indirect $10 million
Indiect mainly loss of productivity and 1/3 of direct costs
Intangilbe costs $1.3 million (loss of life)

DRAFT

Long Term Conditions Cancer (Management of a person with a malignant disease)

Be Well

Prevention

PUBLIC HEALTH
services delivered to HB Population

Health Promotion
National Screening Programmes — ok

PHO
Screening
Cancer Network
Cancer Society
Cancer Services
Kia Ora e Te Iwi Programme
Cervical & Breast Screening Pro — 268

Detection and Management Services

PRIMARY
first Level of care or entry point

General Practice
National Screening Programmes

Get Well

Intensive Assessment and treatment

HOSPITAL
specialist services lead by consultant

Palliative Care	3,346
Gastro/Endo	1482

Outpatients (Napier/Hastings)
Medical Day Ward (IV Chemotherapy) — in generic

Equipment/supplies
Subcutaneous Continuous infusions (Syringe Drivers)

Dietitians

Stay well

Rehabilitation & Support Services

COMMUNITY
services support individual live independently

General Practice
Palliative Care Initatiatve Programme

HBDHB
Pharmaceutical (Cytotoxic chemotherapy, targeted hormones, molecular therapy or immunotherapy)
Oxygen Therapy
Nurse Practitioner @ $115k each
Clinical Nurse Specialist @ $95k each
Psychologist
ARC — 0
Syringe drivers

Equipment/supplies
Subcutaneous infusions
Lymphedema bandages/support hosiery
Stoma consumables
Long-term aids

Cranford
Specialist Education

Dietitians

OUT of DISTRICT — *service provide out of district* — $'000

Inpatients	$1,660
Ambulatory	$6,936
NTA (include Genetic)	

Costings: (Estimated Costs)			
$268	$0	4,828	$0	$8,596

IDF Coding

Purchase U	Description	Group
D01001	Inpatient Dental treatment	
M00.01	General Internal Medical Services - Inpatient Services (DRGs)	Generic
M05.01	Emergency Medical Services - Inpatient Services (DRGs)	Generic
M10.01	Cardiology - Inpatient Services (DRGs)	CVD
M10.05	Specialist Paediatric Cardiac - Inpatient Services (DRGs)	
M15.01	Dermatology - Inpatient Services (DRGs)	
M20.01	Endocrinology & Diabetic - Inpatient Services (DRGs)	Diabetes
M25.01	Gastroenterology - Inpatient Services (DRGs)	
M30.01	Haematology - Inpatient Services (DRGs)	Cancer
M34.01	Specialist Paediatric Haematology	
M40.01	Infectious Diseases (incl Venereology) - Inpatient Services (DRGs)	
M45.01	Neurology - Inpatient Services (DRGs)	
M49.01	Specialist Paediatric Neurology	
M50.01	Oncology - Inpatient Services (DRGs)	Cancer
M54.01	Specialist Paediatric Oncology	
M55.01	Paediatric Medical Service (Inpatient)	
M60.01	Renal Medicine - Inpatient Services (DRGs)	Diabetes
M65.01	Respiratory - Inpatient Services (DRGs)	Respiratory
M70.01	Rheumatology (incl Immunology) - Inpatient Services (DRGs)	Orhto
M80.01	Palliative Medical Services - Inpatient Services (DRGs)	Cancer
S00.01	General Surgery - Inpatient Services (DRGs)	
S05.01	Anaesthesia Services - Inpatient Services (DRGs)	
S15.01	Cardiothoracic - Inpatient Services (DRGs)	CVD
S25.01	Ear, Nose and Throat - Inpatient Services (DRGs)	
S30.01	Gynaecology - Inpatient Services (DRGs)	
S35.01	Neurosurgery - Inpatient Services (DRGs)	
S40.01	Ophthalmology - Inpatient Services (DRGs)	
S45.01	Orthopaedics - Inpatient Services (DRGs)	Orhto
S55.01	Paediatric Surgical Services	
S60.01	Plastic & Burns - Inpatient Services (DRGs)	
S70.01	Urology - Inpatient Services (DRGs)	
S75.01	Vascular Surgery - Inpatient Services (DRGs)	Diabetes
W06.03	Maternity inpatient (DRGs)	
W10.01	Maternity inpatient (DRGs)	
Grand Total		

Grouped into link with LTC

Generic (based only on Medical)
CVD
Diabetes
Cancer
Respiratory
Ortho

Sourced from IDF Calculation Files (16/17 IDF Forecast)

Inpatient

Row Label:	Sum of Amount
Cancer	1,660,283
CVD	10,751,507
Diabetes	872,389
Generic	1,129,028
Orhto	1,547,895
Respirat	241,112
(blank)	11,220,733
Grand Tota	27,422,946

Ambulatory

Row Labels	Sum of Amount
Cancer	6,935,582
CVD	48,129
Diabetes	61,402
Generic	980
Ortho	18,508
Respiratory	39,596
(blank)	3,128,562
Grand Total	10,232,759

HAWKE'S BAY District Health Board Whakawāteatia	**Annual Māori Health Plan Q1 (July-Sept 2016) Non-Financial Exceptions and Dashboard Report**
	For the attention of: **Māori Relationship Board, HB Clinical Council, HB Health Consumer Council and the HBDHB Board**
Document Owners:	Tracee Te Huia, General Manager Māori Health
Document Author(s):	Patrick LeGeyt, Programme Manager Māori Health; Justin Nguma, Senior Health & Social Policy Advisor; and Peter Mackenzie, Operational Performance Analyst
Reviewed by:	Executive Management Team
Month:	December 2016
Consideration:	For Monitoring

RECOMMENDATION

MRB, Clinical and Consumer Council and HBDHB Board:

Note the contents of this report.

OVERVIEW

The purpose of this paper is to provide MRB, HB Clinical Council, HB Consumer Council and the HBDHB Board with exception report for Quarter 1 on the implementation of the 2016 – 2017 Annual Māori Health Plan. A quick reference summary dashboard will be supplied prior to the meeting and shows our position as at the end of Quarter 1 for all indicators. The dashboard uses traffic light methodology with detailed information and symbols for all indictors. For example, in a situation where the performance of the indicator for the current quarter is higher than the previous quarter this symbol '▲' will be used to show an upward trend while an opposite symbol '▼' will be used to show a downward trend. In cases where the variance to the annual target for the indicator is greater than 0.5% this symbol **'U'** *(indicated on the dashboard in red)* will be used to indicate unfavourable trend and 'F' for favourable trend *(indicated on the dashboard in green colour)* toward the annual target *(see the table below).*

KEY FOR DETAILED REPORT AND DASHBOARD

Baseline	Latest available data for planning purpose
Target 2015/16	Target 2016/17
Actual to date	Actual to date
F (Favourable)	Actual to date is favourable to target
U (Unfavourable)	Actual to date is unfavourable to target
Trend direction ▲	Performance is improving against the previous reporting period or baseline
Trend direction ▼	Performance is declining
Trend direction -	Performance is unchanged

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2017-2017 ANNUAL MĀORI HEALTH PLAN PERFORMANCE HIGHLIGHTS

Achievements

1. Cervical screening

Cervical Screening for 25-69 year old Māori women (72.7%) for this quarter is slightly lower than the 73.2% in the last 2015-2016 quarter (Page 5). However, HBDHB continues to be on the top list on Cervical Screening performance in New Zealand. This performance also narrows the disparity gap between Māori and non- Māori by 5.5%.

The performance is attributed to the HBDHB integrated service approach across the screening pathways in working together towards a common goal of attaining the national target for Māori women and addressing inequity. Māori women have access to free cervical smear tests and support services across the district. We have been working closely with GP practices to improve participation of NCSP priority group women in screening e.g. Best Practice in Primary Care project and data-matching. In addition, we have been contacting Māori and Pacific women who have never had a cervical smear or have not had one for over five years by phone or home visits, and offering outreach smears. The uptake has been positive.

Recent population projections released by the National Screening Unit show that in the next five years (2016-2021) Hawke's Bay's NCSP eligible Māori and Pacific populations will increase by 7% and the Asian population will increase by 16%. This is a challenge our sector need to prepare for.

2. Immunisation

HBDHB ranks 3rd nationally for immunisation rates for 8 months old Māori and has remained above or very near the target of ≥ 95% with a 94.4% in Quarter 1 (Page 6).

This success is attributable to a number of factors ranging from having a champion in the executive management team; a committed, appropriate, experienced workforce; and an action plan with sound tracking and tracing processes with NIR to ensure that children are referred to outreach if needed in sufficient time to locate them. Attempts are made to contact all families with overdue children to offer immunisation and information / resources if hesitant.

Efforts will be focused on fostering collaborative relationships with all immunisation providers to promote immunisation within the community at antenatal sessions monthly and PEPE groups (first time parents) run through Plunket.

Areas of progress

1. Mental Health and Addictions

Māori under Mental Health Act compulsory treatment orders has decreased from 201.6 per 100,000 population in Quarter 4 of 2015/16 to 183.9 per 100,000 population in Q1 2016/17. There still remains a significant inequality between Māori and non-Māori of 94.2 per 100,000 population down from 104.9 per 100,000 population in Quarter 4 (Page 7).

2. Access to Care

The number of Māori enrolled in the Health Hawke's Bay PHO increased slightly by 1% from 95.6% in Quarter 4 of 2015-2016 to 96.6% in Quarter 1 in 2016-2017 and remains slightly below the expected performance target of 97% (Page 8). Currently HBDHB ranks 4th among all DHBs in the country for Māori PHO enrolments.

3. Rheumatic Fever

Acute Hospitalisation for Rheumatic Fever has decreased from 7.33 in Quarter 3 of 2015-2016 to 4.82 in Quarter 1 of 2016-2017 (6 monthly data) (Page 9).

4. Alcohol and Other Drugs

Access to services for 0-19 Year Olds within 3 weeks of referral increased by 4.2% from 66.4% in Quarter 4 of 2015-2016 to 70.6% in Quarter 1 of 2016-2017 but still below the expected target of 80%. Similarly, 0-19 Year Olds seen within 8 weeks of referral increased slightly from 91.4% to 91.7% but less than the target of 95% (Page 10).

The decreased wait times has been a focus over 2016 and is a product of collaborative work with referrer (e.g., schools, CYF) in ensuring that we provide most seamless service possible for Māori.

Areas of focus

The above achievements notwithstanding, we are challenged to put more efforts in the following areas to gain traction towards targets:

1. Ambulatory Sensitive Hospitalisations

ASH Rates in 2015/16 and presented a significant narrowing of disparity gap for 0-4 year old group between Māori and Other and HBDHB has 3rd best results for all DHBs for 0-4 year old group. However in Quarter 1 of 2016/17 they have risen 13.1% to from 78.6% in Quarter 4 to 91.7% in Quarter 1. Similarly, ASH Rates for 45-64 year old group have increased from 170% in Quarter 4 to 196.0% in Quarter 1 presenting a significant inequality between Māori and non- Māori of 87% (Page 11).

2. Breast Screening

Breast screening services for (50-69yrs) has decreased slightly from 67.9% in Quarter 4 of 2015-2016 to 67.1% in Quarter 1 of 2016-2017 and remains just below the expected target of ≥70% (Page 12).

3. Workforce Development

Staff completed cultural training is making slow progress from 77.5% in Quarter 4 to 78.8% in Q1. Medical staff (39.9%) and Support staff (63.3%) have progressed the slowest of all occupational groupings. Medical staff, despite a 25.6% increase in 2015/16, have only increased 0.3% from Quarter 4 to 39.9% in Quarter 1 (Page 13).

Māori Workforce did not grow in Quarter 1 and remained static at 12.5%; the same result noted in Quarter 4 of 2015-2016 (Page 14). Whilst the 2016-2017 annual target of 13.8% is only an additional 10% on 2015-2016 result, it remains a significant challenge.

4. Obesity

The B4SC data for Quarter 1 of 2016-2017 (6 monthly data) shows that only 18% of Māori Children with BMI in 98th percentile were referred to a health professional for nutritional advice, which is a 2% decrease from 20% reported in Quarter 3 of 2015-2016 (Page 15).

ANNUAL MĀORI HEALTH PLAN, QUARTER 1JULY – SEPTEMBER 2016 DASHBOARD REPORT

Immunisation

Indicator	Baseline	Prior period result	Actual to date Maori	Actual to date Other	Period target	Individual Numbers to Target (approx)	Time Series Trend (12 months)	Desired Trend
Immunisation (8 Months)	92.6%	94.6%	94.4%	96.5%	≥ 95%	-2		↑
65+ Influenza (3m)	68.0%	56.5%	-	-	≥ 75%	-		↑

Rheumatic Fever

Indicator	Baseline	Prior period result	Actual to date Maori	Actual to date Total	Period target	Individual Numbers to Target (approx)	Time Series Trend (12 months)	Desired Trend
Hospitalisation rate (6m)	2.48	7.33	4.82	1.86	≤ 1.5	-		↓

Breastfeeding

Indicator	Baseline	Prior period result	Actual to date Maori	Actual to date Total	Period target	Individual Numbers to Target (approx)	Time Series Trend	Desired Trend
QIF Data								
At 6 Weeks	58.0%	67.0%	-	-	≥ 75%	-		↑
At 3 months	46.0%	39.0%	-	-	≥ 60%	-		↑
At 6 months	46.0%	48.0%	-	-	≥ 65%	-		↑

SUDI

Indicator	Baseline	Prior period	Actual to date Maori	Actual to date Other	Period target	Individual Numbers	Time Series Trend	Desired Trend
Rate per 100,000	2.09	2.1	-	-	≤ 0.4			↓
Caregivers given SUDI Prevention Info	72.8%	72.8%	-	-	≥ 100%			↑

Oral Health

Indicator	Baseline	Prior period	Actual to date Maori	Actual to date Other	Period target	Individual Numbers	Time Series Trend	Desired Trend
Pre-school enrolment rate	65.3%	74.1%	-	-	≥ 95%	-		↑
% Caries Free at 5yrs	36.0%	36.0%	-	-	≥ 67%	-		↑

Tobacco

Indicator	Baseline	Prior period	Actual to date Maori	Actual to date Other	Period target	Individual Numbers	Time Series Trend	Desired Trend
Smokefree 2 weeks postnatal	53.0%	65.6%	-	-	≥ 95.0%	-		↑

Mental Health & Addictions

Indicator	Baseline	Prior period	Actual to date Maori	Actual to date Other	Period target	Individual Numbers	Time Series Trend	Desired Trend
Mental Health Act community treatment orders (per 100,000)	196.0	201.6	183.9	89.7	≤ 81.5	-		↓

Access to Care

Indicator	Baseline	Prior period result	Actual to date Maori	Actual to date Other	Period target	Individual Numbers to Target (approx)	Time Series Trend (12 months)	Desired Trend
PHO Enrolment	97.2%	95.6%	96.6%	96.9%	≥ 100%	-1392		↑

ASH Rates

0-4 years (6m)	82.1%	78.6%	91.7%	80.3%	≤ 85%	-		↓
45-64 years (6m)	172.0%	170.0%	196.0%	109.0%	≤ 138%	-		↓

Cancer

Indicator	Baseline	Prior period	Actual to date Maori	Actual to date Other	Period target	Individual Numbers	Time Series Trend	Desired Trend
Cervical screening (25-69 yrs)	74.1%	73.2%	72.7%	78.2%	≥ 80%	-657		↑
Breast screening (50-69 yrs)	68.4%	67.9%	67.1%	74.5%	≥ 70%	-102		↑

Maori Workforce

Indicator	Baseline	Prior period result	Actual to date Maori	Actual to date Other	Period target	Individual Numbers to Target (approx)	Time Series Trend	Desired Trend
Medical	2.9%	3.2%	3.4%	-				
Management & Administration	16.5%	16.0%	16.5%	-				
Nursing	10.6%	10.8%	10.8%	-				
Allied Health	12.6%	13.2%	13.2%	-				
Support Staff	28.2%	29.3%	27.4%	-				
Māori staff - HBDHB	12.3%	12.5%	12.5%	-	≥ 13.8%	-54		↑

Cultural Responsiveness

Indicator	Baseline	Prior period result	Actual to date Other	Period target	Individual Numbers to Target (approx)	Time Series Trend	Desired Trend
Medical	19.2%	39.6%	39.9%	-			
Management & Administration	79%	85.6%	87.0%	-			
Nursing	70%	81.4%	82.9%	-			
Allied Health	77%	85.2%	86.2%	-			
Support Staff	36%	60.1%	63.3%	-			
HBDHB	66%	77.5%	78.8%	-	≥ 100%	-		↑

Obesity

Indicator	Baseline	Prior period result	Actual to date Maori	Actual to date Other	Period target	Individual Numbers to Target (approx)	Time Series Trend	Desired Trend
Referred for Nutrition	30%	20%	18%	21%	≥ 95%	-56.55		↑
Bariatric Surgery	3	3	0	0	-	-		-

Alcohol and Other Drugs

Indicator	Baseline	Prior period result	Actual to date Maori	Actual to date Other	Period target	Individual Numbers to Target (approx)	Time Series Trend	Desired Trend
% of 0-19 year olds seen within 3 weeks of referral	91%	88.0%	81.6%	81.2%	≥ 80%	-		↑
% of 0-19 year olds seen within 8 weeks of referral	100%	91.4%	91.7%	92.8%	≥ 95%	-		↑

Indicator Legend
Target attained
Within 10% of target
10-20% away from target
Greater than 20% away from target

Time Series Key:

Target

Actual

QUARTERLY PERFORMANCE AND PROGRESS UPDATE

Cancer Screening

Outcome: Achieve the National Cervical Screening Programme (NCSP) national – Target: 80% of 25-69 years

Key Performance Measures	Baseline[1]	Previous result[2]	Actual to Date[3]	Target 16-17	Trend direction
Māori	74.1%	73.2% (U)	72.7% (U)	≥80%	▼
Pacific	71.2%	71.4% (U)	74.2% (U)	≥80%	▲
Other	76.5%	77.8% (U)	78.2% (U)	≥80%	▲
Total	75.8%	76.6% (U)	76.9% (U)	≥80%	▲

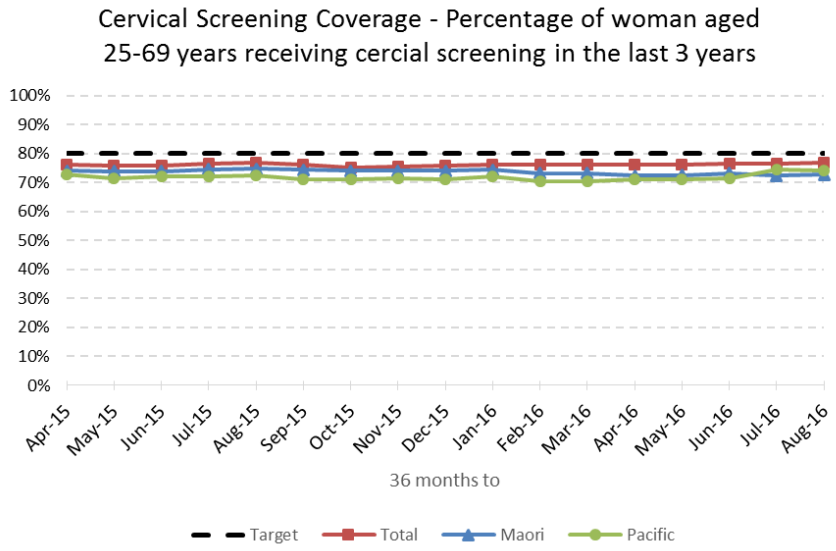
Comments:

Continuing to work with GP practices to improve participation of NCSP priority group women in screening e.g. Best Practice in Primary Care project and data-matching. In addition, contacting Māori and Pacific women who have never had a cervical smear or have not had one for over five years by phone or home visits, and offering outreach smears. The uptake has been positive.

Continuing to ensure accuracy of participant ethnicity data held on National Cervical Screening Programme Register and ethnicity data on NHI

Recent population projections released by the National Screening Unit show that in the next five years (2016-2021) Hawke's Bay's NCSP eligible Māori and Pacific populations will increase by 7% and the Asian population will increase by 16%. A challenge to the sector.

Time series



Source: National Screening Unit

13 years to December 2015

23 years to June 2015

33 years to August 2016

Increasing Immunisation

Outcome: 95% 8 month olds completing primary course of immunisation

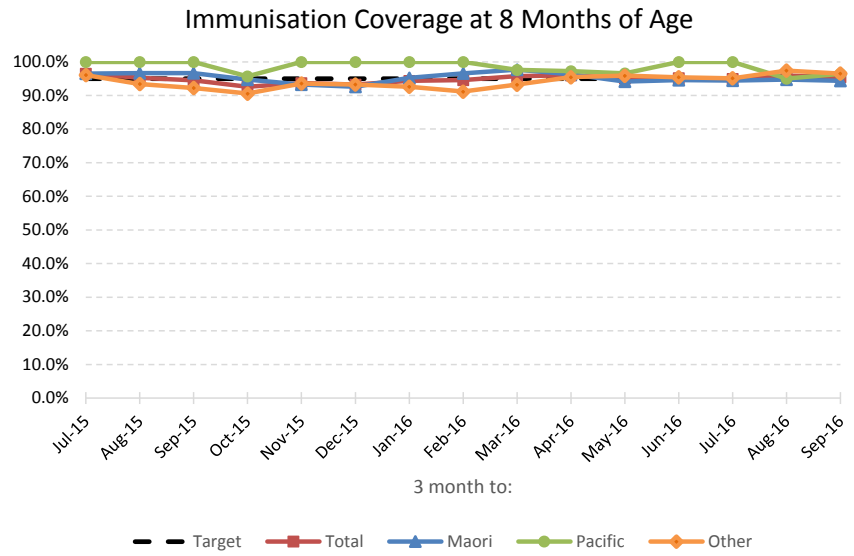
Key Performance Measures	Baseline[4]	Previous result[5]	Actual to Date[6]	Target 16-17	Trend direction
Māori	92.6%	94.6% (F)	94.4% (U)	≥95%	▼
Pacific	100.0%	100% (F)	96.4% (F)	≥95%	▼
Other	93.3%	95.4% (F)	96.5% (F)	≥95%	▲
Total	93.3%	95.2% (F)	95.4% (F)	≥95%	▲

Comments:

Implementing the Immunisation Action Plan and continuing to be systematic in our approach. Sound tracking and tracing processes in place with NIR to ensure that children are referred to outreach if needed in sufficient time to locate them. Attempts are made to contact all families with overdue children to offer immunisation and information / resources if hesitant.

Continue to foster collaborative relationships with all immunisation providers and promote immunisation within the community at antenatal sessions monthly and PEPE groups (first time parents) run through Plunket.

Time series



Source: National Immunisation Register, Ministry of Health

4 October to December 2015

5 April to June2016

6 July to September 2016

Mental Health

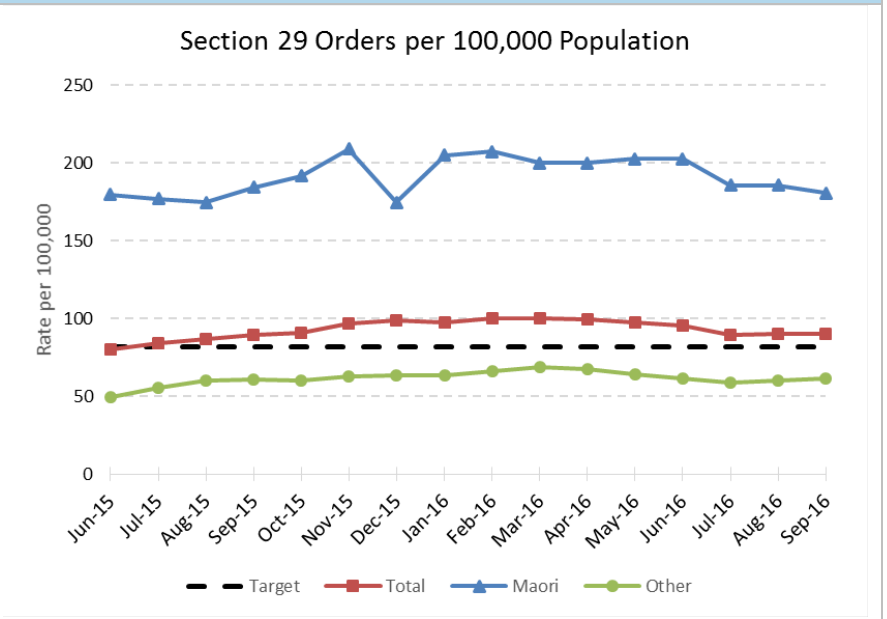
Outcome: Reduced rate of Māori under compulsory treatment orders to < 81.5 per 100,000 (total population)

Key Performance Measures	Baseline[7]	Previous result[8]	Actual to Date[9]	Target 15-16	Trend direction
Māori (per 100,000)	196	201.6 (U)	183.9 (U)	≤81.5	▲
Other (per 100,000)	93.4	64.5 (F)	60.1 (F)	≤81.5	▲
Total (per 100,000)	97	97.3 (U)	89.7 (U)	≤81.5	▲

Comments:

Some recent trending down for Māori CTO rates is positive but more work needed to reduce in longer term. Activity in the table below indicate moves to better understand complexities of this issue and greater connection with our communities and whānau, which is imperative. Community Mental Health vision is to have a greater Whānau Ora type approach to our treatment and service provision with a more holistic approach to needs, including social and economic factors, to support whānau aspirations for improved wellness and lifestyle. Supporting Parents Healthy Children (was COPMIA) and Pregnancy Parenting Support initiatives are examples of how and where we will be resourcing this work.

A Te Ara Whakawaiora paper was presented and discussed at MRB in August. Subsequently, the Mental Health directorate and Māori Health Services have organised a wananga that will be held in Q2 with a wide group of stakeholders to discuss the complexities of compulsory treatment orders.



7

8*April to June 2016*

9*July to September 2016*

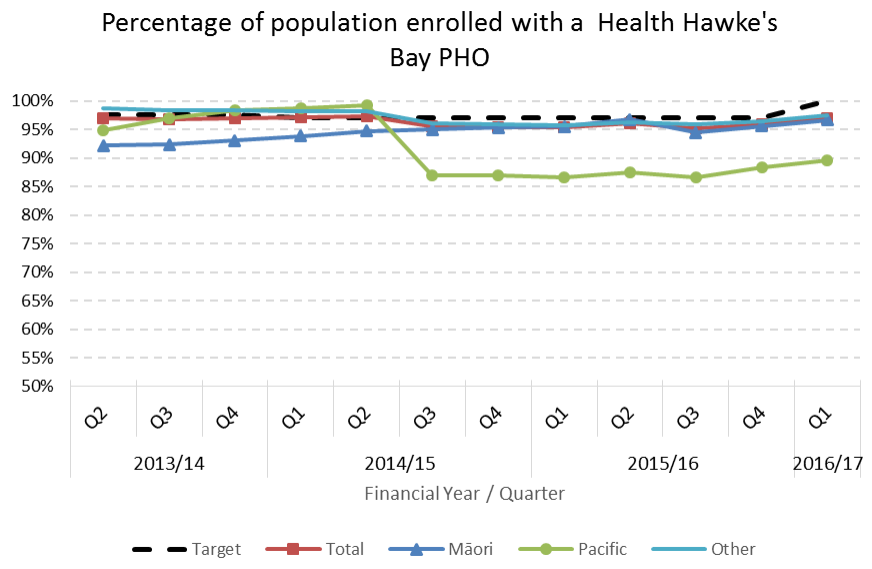
Access to Care

Outcome: Increase enrolment in the PHO – Target: % of the population enrolled in the PHO

Key Performance Measures	Baseline [10]	Previous result[11]	Actual to Date[12]	Target 16-17	Trend direction
Māori	97.2%	95.6% (U)	96.6% (U)	≥100%	▲
Pacific	88.7%	88.4% (U)	89.6% (U)	≥100%	▲
Other	96.5%	96.5% (U)	97.4% (U)	≥100%	▲
Total	96.4%	95.9% (U)	96.9% (U)	≥100%	▲

Comment:

Time series



10 October 2015

11 April 2015

12 July 2016

Reducing Rheumatic Fever						
Outcome: Reduced incidence of first episode Rheumatic Fever						
Key Performance Measures	Baseline [13]	Previous result [14]	Actual to Date[15]	Target 16-17	Trend direction	
Māori	2.48	7.99 (U)	4.82 (U)	≤1.5	▲	**Comments:** Work continues on refreshed rheumatic fever plan
Pacific	-	-	16.47 (U)	≤1.5	*	
Total	0.6	1.87 (U)	1.86 (U)	≤1.5	▲	

13 July 2014 – June 2015

14 July 2015 – June 2016

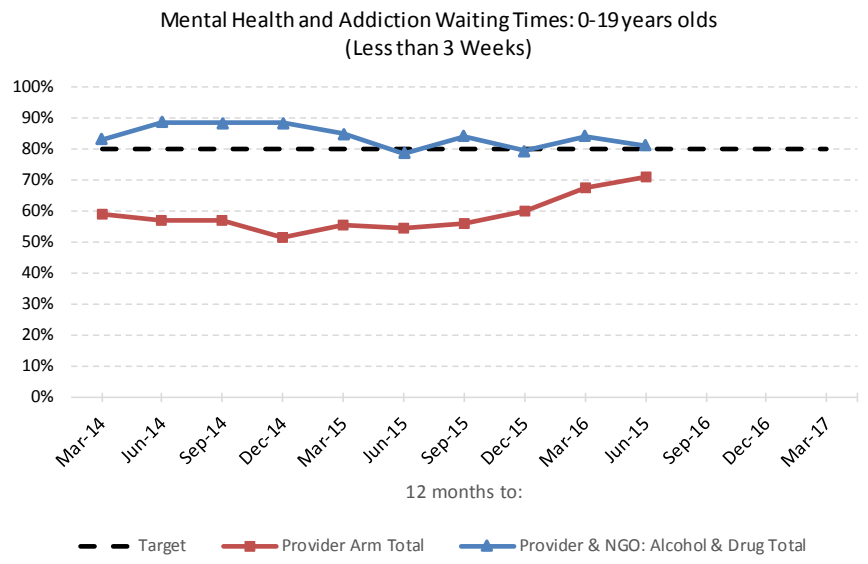
15 July 2016 – September 2016

Alcohol and Other Drugs

Outcome: % of 0-19 year olds seen within 3 weeks of referral

Key Performance Measures	Baseline [16]	Previous result[17]	Actual to Date[18]	Target 16-17	Trend direction
Mental Health Provider Arm: Seen within 3 weeks Ages 0-19					
Māori	63.2%	66.4% (U)	70.6% (U)	≥80%	▲
Pacific	75.0%	71.4% (U)	72.7% (U)	≥80%	▲
Other	56.9%	68% (U)	71.3% (U)	≥80%	▲
Total	60.1%	67.4% (U)	71.2% (U)	≥80%	▲
Decreased wait times has been a focus over 2016 and is trending positively, although there has been an increase in referrals over time.					
Provider Arm and NGO: Seen within 3 weeks Ages 0-19					
Māori	90.5%	88% (F)	81.6% (F)	≥80%	▼
Pacific	-	-	-	≥80%	*
Other	61.5%	80% (F)	80% (F)	≥80%	—
Total	84.2%	84% (F)	81.2% (F)	≥80%	▼

Time series



16 January 2015 to December 2015

17 April 2015 to March 2016

18 July 2015 to June 2016

Ambulatory Sensitive Hospitalization (ASH)

Outcome: Reduction in Ambulatory Sensitive Hospitalisation (ASH) rates in 0-4 year olds.

Key Performance Measures	Baseline [19]	Previous result[20]	Actual to Date[21]	Target 16-17	Trend direction
Māori	82.1%	78.6% (F)	91.7% (U)	≤85.3%*	▼
Other	66.1%	55.5% (U)	63.8% (U)	-	▼
Total	73.0%	69.6% (U)	80.3% (U)	-	▼

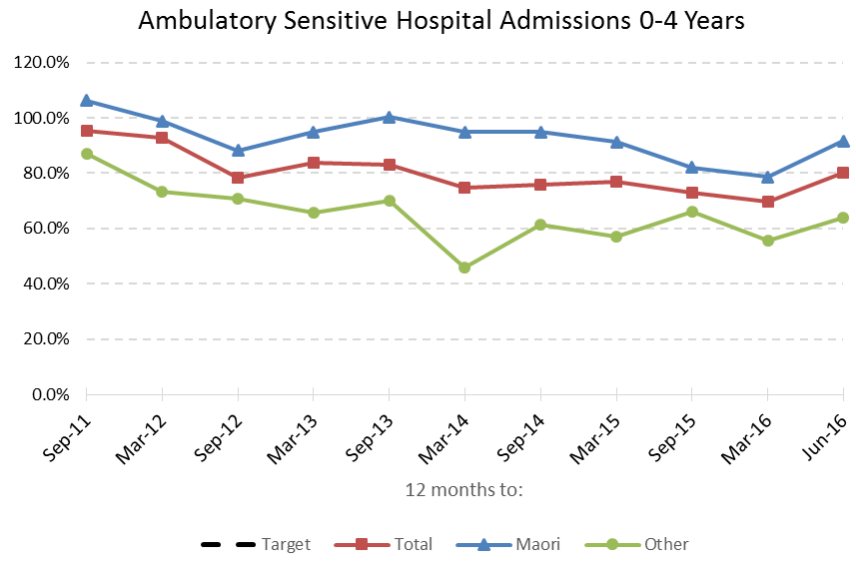
** To focus on equity the Māori target has been set at 'within 5% of the Total'*

Planning is underway to employ a Kaiawhina, as part of the HBDHB Public Health team as part of the skin programme, within local Te Kohanga Reo. This role will support the Te reo skin resources developed and rolled out into ECE and Te Kohanga reo in 2015, which focus on preventing skin infections.

The Māori health Programme manager is working with Plunket to provide a facilitation and advocacy role initiating oral health appointments and attendance by whānau who may have barriers to accessing services. WCTO services as well placed to perform this role as they have established relationships with whānau, as well as WCTO checks aligning with key oral health checks.

The HBDHB Respiratory programme has been extended to cover children, work is being planned to up skill Primary care staff around child specific respiratory conditions and pathways. Other opportunities being scoped are; development of clinical pathways; flu injections for children with respiratory conditions; looking at support post discharge for children presenting to ED with respiratory conditions. Activities focus on improving management of respiratory conditions and follow up at primary care/community level to reduce the possibility of hospital admissions.

Time series



Source: Ministry of Health

19 12 months to September 2015

20 12 months to September 2015

21 12 months to March2016

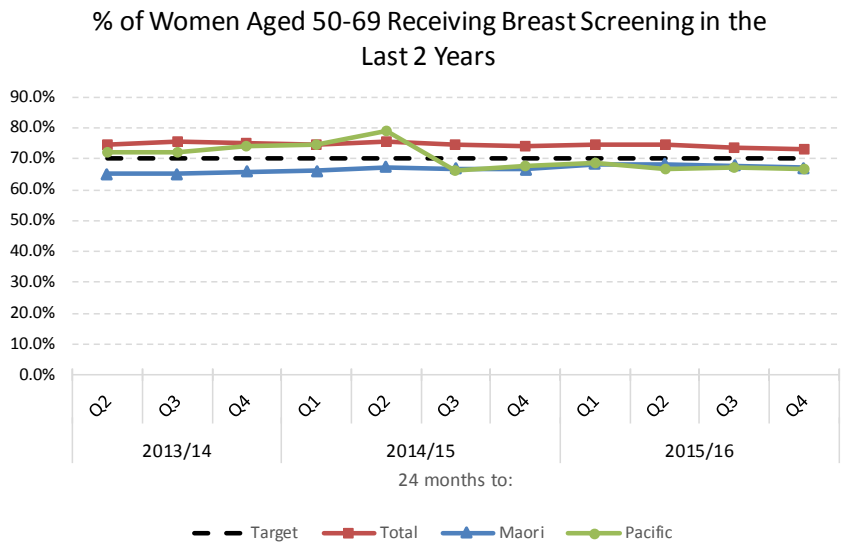
Breast Screening

Outcome: Achieve the National Breast Screen Aotearoa (BSA) national – Target: 70% of 50-69 years

Key Performance Measures	Baseline [22]	Previous result[23]	Actual to Date[24]	Target 16-17	Trend direction
Māori	68.4%	67.9% (U)	67.1% (U)	≥70%	▼
Pacific	66.5%	67.2% (U)	66.6% (U)	≥70%	▼
Other	76.0%	74.5% (F)	74.5% (F)	≥70%	—
Total	74.7%	73.4% (F)	73.2% (F)	≥70%	▼

Comments:

Time series



Source: National Screening Unit

2224 months to December 2015

23 24 months to March 2016

24 24 months to June 2016

Māori Workforce and Cultural Competency

Outcome: All staff working in the health sector have completed an approved course of cultural responsiveness training.

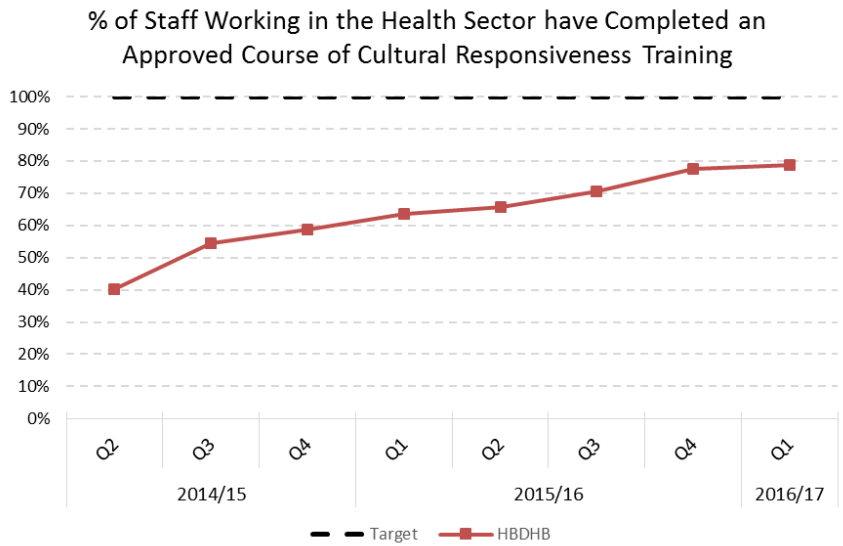
Key Performance Measures	Baseline [25]	Previous result[26]	Actual to Date[27]	Target 16-17	Trend direction
Medical	19.20%	39.6% (U)	39.9% (U)	-	▲
Management & Administration	79.10%	85.6% (U)	87% (U)	-	▲
Nursing	70.00%	81.4% (U)	82.9% (U)	-	▲
Allied Health	77.30%	85.2% (U)	86.2% (U)	-	▲
Support Staff	35.60%	60.1% (U)	63.3% (U)	-	▲
HBDHB	65.60%	77.5% (U)	78.8% (U)	≥100%	▲

Comments:

Current report shows DHB staff who have completed EEWM training or other cultural training.

Managers now have access to reports within PAL$ to monitor staff completion rates of EEWM and Treaty of Waitangi.

Time series



25 December 2014

26March 2016

27June 2016

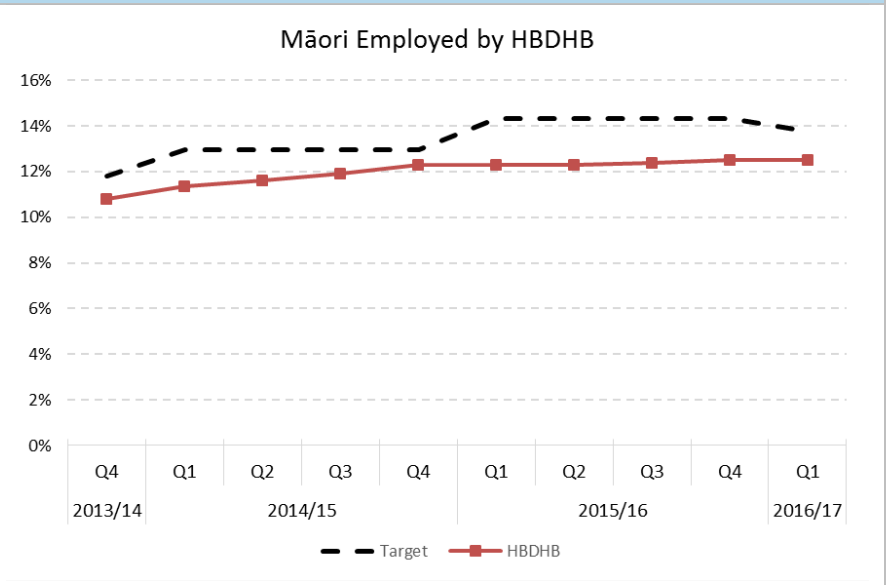
Māori Workforce and Cultural Competency

Outcome: Increased proportion of Māori employed by 10% yearly across HBDHB. Target 16/17 year 13.75%

Key Performance Measures	Baseline [28]	Previous result[29]	Actual to Date[30]	Target 16-17	Trend Direction
Medical	2.90%	3.2% (U)	3.4% (U)	-	▲
Management & Administration	16.50%	16% (F)	16.5% (F)	-	▲
Nursing	10.60%	10.8% (U)	10.8% (U)	-	—
Allied Health	12.60%	13.2% (U)	13.2% (U)	-	—
Support Staff	28.20%	29.3% (F)	27.4% (F)	-	▼
HBDHB	12.30%	12.5% (U)	12.5% (U)	≥13.75%	—

Comments:
Gap to 30 September is 38 made up as follows:
30 Medical
44 Nursing
3 Allied Health
(26) Support
(13) Management and Admin

Time series



28 December 2014

29March2016

30June2016

Obesity						
Outcome: Reduce the incidence of Obesity in Hawke's Bay – Target: 95 percent of children with BMI ≥98th percentile identified in the Before School Check (B4SC) programme will be referred on for nutrition, activity and lifestyle interventions.						
Key Performance Measures	Baseline [31]	Previous result [32]	Actual to Date [33]	Target 15-16	Trend direction	Comments
Māori	30.0%	20% (U)	18% (U)	≥95%	▼	We currently do not have this data as this is a new target and the first quarter are only just completed – data checking is underway. It will come from the B4 School Check programme
Other	23.0%	21% (U)	22% (U)	≥95%	▲	
Total	27.0%	21% (U)	21% (U)	≥95%	—	

31 6 months to September 2015

32 6 months to March 2016

33 6 months to June 2016

Community Water Fluoridation

Hawke's Bay DHB

Maori Relationship Board Meeting

9 November 2016

Today's presenters

- Dr Robin Whyman
  - Clinical Director of Oral Health Services
- Dr Bethany Jones
  - Consultant Neurologist, special interest in cognitive neurology
  - PhD in neuroscience
  - Experience in neurology guideline development national level
- Dr Kate Robertshaw
  - Neurodevelopmental paediatrician

This presentation

- Background information
- Is water fluoridation still effective?
- What is the effect on Hawke's Bay oral health inequalities?
- Is it safe - the health effects issues
- Affordable
- Population health and decision making

Some terminology

- Water fluoridation
  - Adding fluoride to drinking water
  - Adjust it from 0.1 – 0.3ppm to 0.7 – 1ppm
  - NZ Recommended Level 0.7 – 1.0ppm
  - NZ Maximum Acceptable Value 1.5ppm
- ppm or mg/L
  - Parts per million – also sometimes mg/L
  - 1ppm = 1mg/L
- DMFT/dmft or DMFS/dmfs
  - Decayed, missing and filled teeth or surfaces
- Percent caries free
  - The proportion of people **without** dental decay
  - Inverse of a prevalence

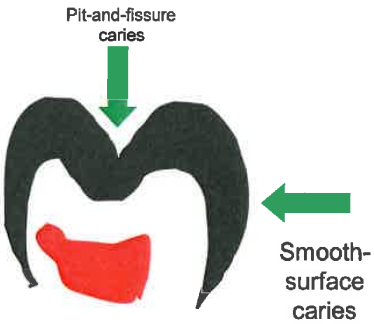
What is Fluoride?

- a naturally occurring chemical element
- the 13th most common element on earth

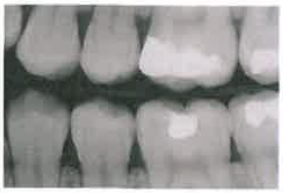
- Present in
  - unfertilised soils 300+ ppm
  - sea water 0.8 to 1.4 ppm
  - most NZ fresh water 0.1 to 0.3 ppm

Fluoride, the ionic form, is natural, is tasteless, is everywhere, and is unavoidable.

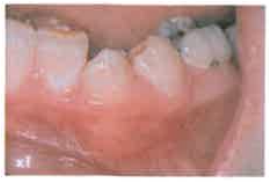
Dental decay



Interproximal surfaces

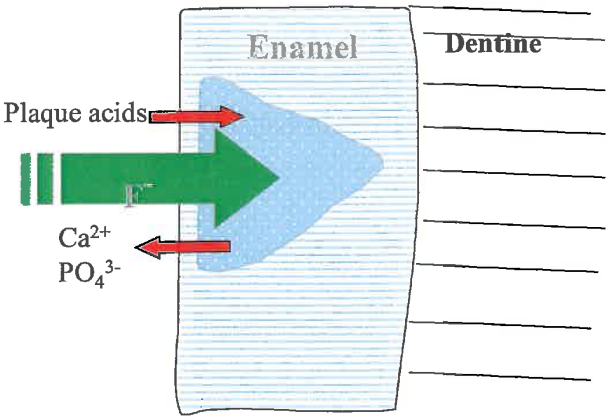


Facial surfaces



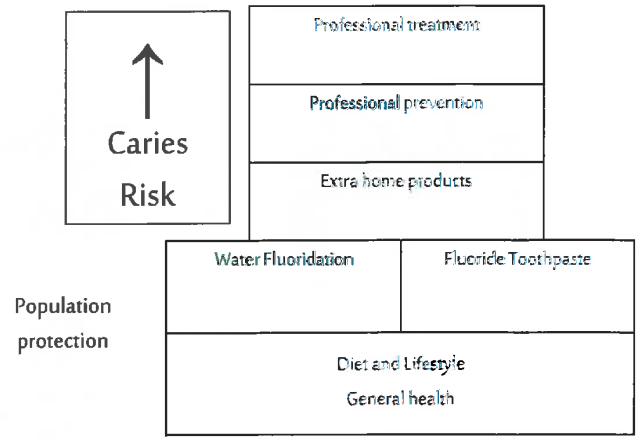
Fluoride works best against early carious lesions of the smooth surfaces

Tooth decay and the role of fluoride



Works mainly at the tooth surface, which becomes less soluble if fluoride is present in the oral fluids.

The dental caries prevention strategy



Child oral health

- 40% reduction in the severity of dental decay for children
- 15% reduction in the proportion of children with dental decay

sapere research group

Table 1 Summary of key evidence for benefits of water fluoridation in children

Study (year of publication)	Population	Study type	Reduction in dental decay
2009 New Zealand Oral Health Survey (2010)[a]	1431 NZ children surveyed in 2009; 957 dentally examined	Cross-section	40%[a]
York report (2000)[b]	26 studies from countries around the world published between 1951 and 1999	Meta-analysis of before-and-after studies Prospective studies	38%[b]
Rugg-Gunn and Do (2012)[c]	36 evaluations of primary teeth published after 1990	Meta-analysis. Most evaluations included were based on cross-sectional studies; some before-and-after studies were included	30–59%[c]
	53 evaluations of permanent teeth published after 1990		50–59%[c]
Cochrane (2015)[d]	9 studies with 44,268 participants	Meta-analysis of before-and-after studies Prospective studies	35%[d]

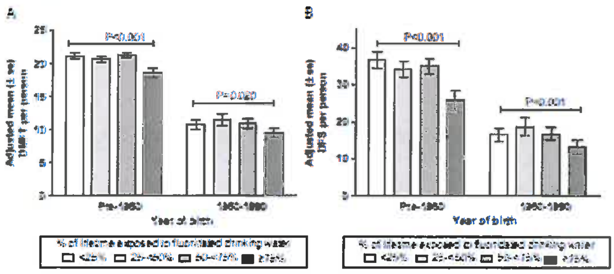
[illegible]

The 2013 research from Australia on adults

RESEARCH REPORTS

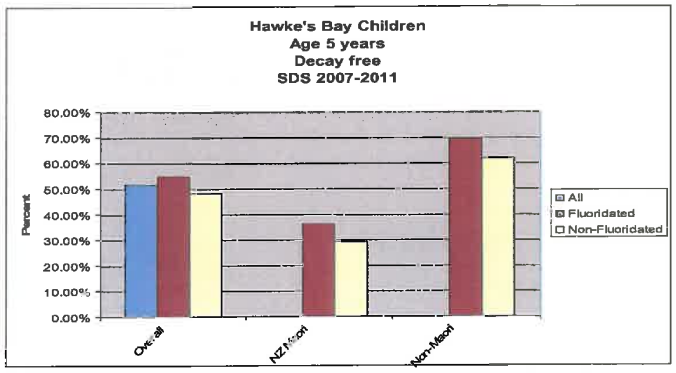
G.D. Slade, A.E. Sanders, L. Do, K. Roberts-Thomson, and A.J. Spencer

Effects of Fluoridated Drinking Water on Dental Caries in Australian Adults



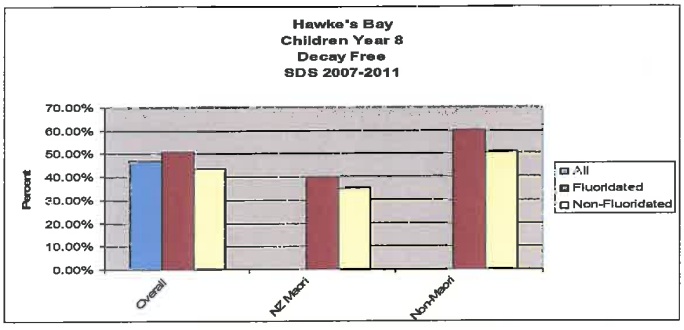
- Born pre 1960 or 1960-1990
  - 11% or 10% fewer teeth affected by decay
  - 30% and 21% fewer tooth surfaces

Hawke's Bay 5-year-old children



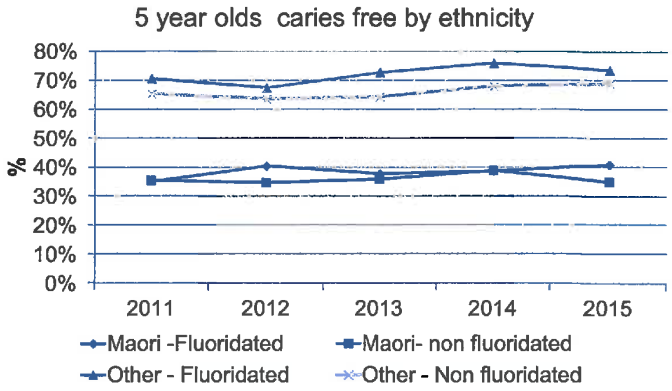
- 7% more 5-year-old children decay free in fluoridated Hawke's Bay
  - consistent across ethnicities

Hawke's Bay Year 8 children

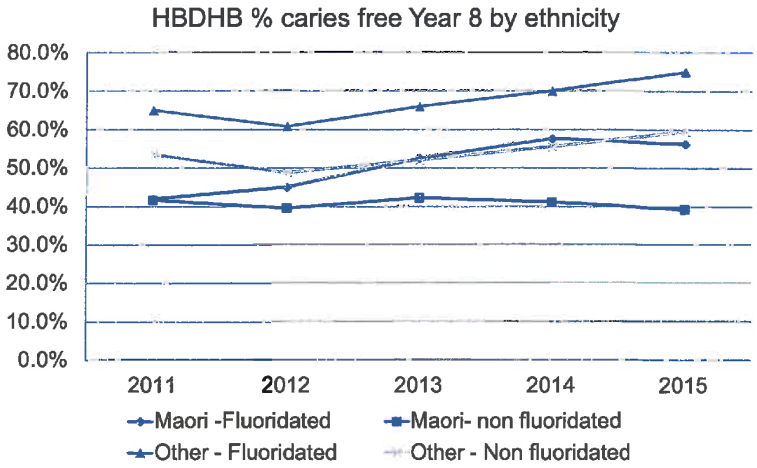


- 7% more Year 8 children decay free in fluoridated Hawke's Bay
  - 5% NZ Maori
  - 9% Non-Maori

Hawke's Bay 5-year-old children decay free by ethnicity



Hawke's Bay Maori and Non-Maori Year 8 children



Impact on inequality

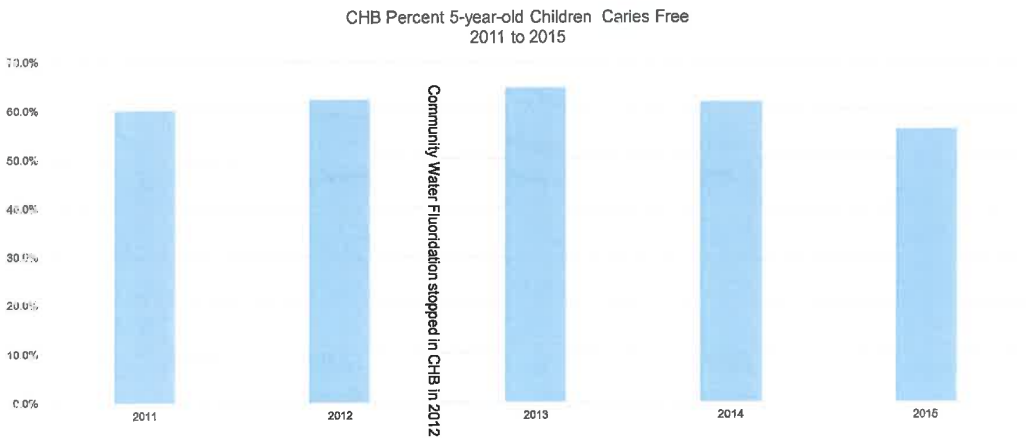
- In Hawke's Bay
  - Maori 5-year-old children show about 5-7% difference in decay by water fluoridation

  BUT

  - By Year 8 Maori Fluoridated children have the same rate decay free (approximately 60%) as non-Maori non-fluoridated

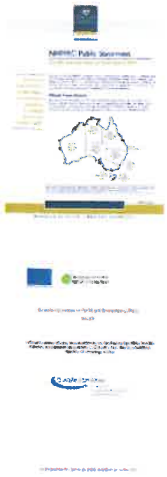
OUR RESULT IS A REAL REDUCTION IN INEQUALITY
AND THE BENEFIT IS FOR PERMANENT TEETH

And what if we stopped?

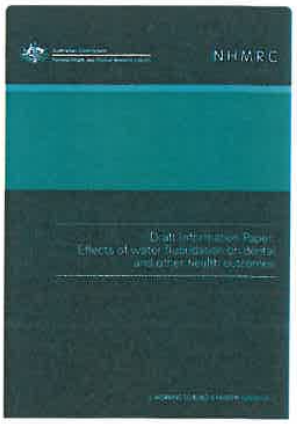


What about the harmful side effects?

- Lots of reports
- Lots of claims
  - Infant intakes
  - Cancer
  - Bone fractures
  - IQ and brain function
  - Others



Latest NZ and Australian Reports



2016

Health risks and Community Water Fluoridation

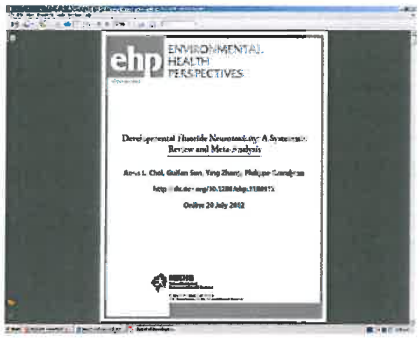
There remains ongoing debate about the long-term safety of adding fluoride to drinking water. It is important to separate concerns that are evaluable by science and those concerns that arise from philosophical/ideological considerations. With respect to the former it is important to note that the inherent nature of science is such that it is never possible to prove there is absolutely no risk of a very rare negative effect – science can only draw conclusions that are highly probable, but not absolute.

Most recently, the concerns for potential side effects have revolved around (a) whether consuming fluoridated water increases the risk of cancer (in particular osteosarcoma), and (b) the effects of fluoride on the cognitive development of children. The potential for increased bone fracture risk has also been extensively examined. While the scientific consensus confirmed in this review is that these are not significant or realistic risks, as a matter of public health surveillance, such claims continue to be studied and monitored in populations receiving fluoridated water.

IQ and Brain Function

- Reports from China (mainly)
- Suggest high fluoride levels in groundwater associated with minimally reduced intelligence (IQ)
- BUT
- Fluoride levels compared mostly much higher than community water fluoridation
- Failed to control other factors
  (arsenic, iodine, nutritional status, socio economics)

Evidence regarding neurotoxicity of fluoride



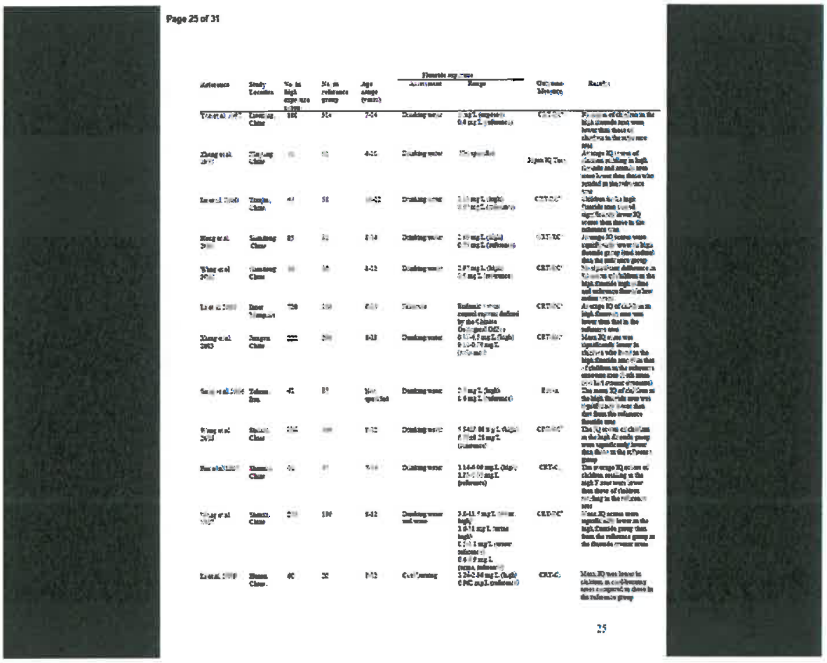
- Critical appraisal to see if there is any scientific evidence we should include in our recommendations about fluoridisation of drinking water.
- For this paper to be of use to us:
  - The meta analysis must have been performed properly
  - The groups (in the paper vs Hawke's Bay population) must be comparable and exposed to the same levels of fluoride in drinking water.

Critical Appraisal of the paper

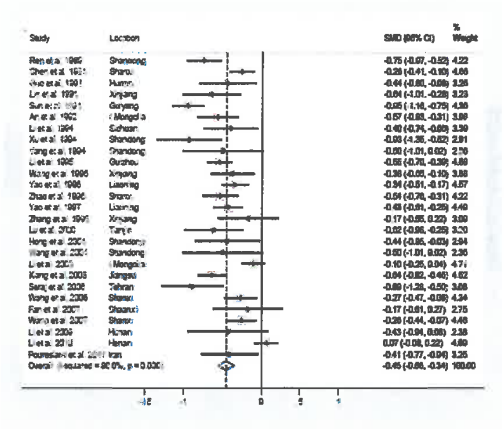
- Good
  - Clearly defined research Question
  - Comprehensive literature research
  - Included and excluded studies are listed
  - Characteristics of included studies documented (see table)
  - Scientific quality of the included studies was assessed appropriately (they themselves state that the studies were generally of insufficient quality)
  - Appropriate methods used to combine the individual study findings
  - Likelihood of publication bias is assessed

Critical Appraisal of the paper

- Poor
  - >1 person selected papers and extracted data? No consensus procedure to resolve differences.
  - Scientific quality of the included studies was not assessed appropriately (did not provide any detail about the individual studies for their quality to be assessed)
  - Conflicts of interest not declared (i.e. in the studies included in the meta-analysis).
- The results of this study are not directly applicable to our subject group



[redacted]

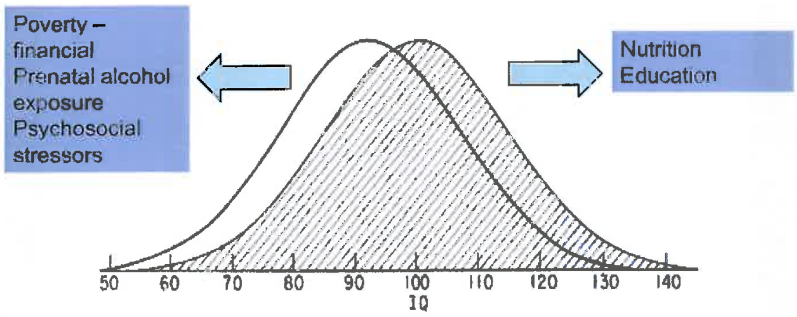


[redacted]

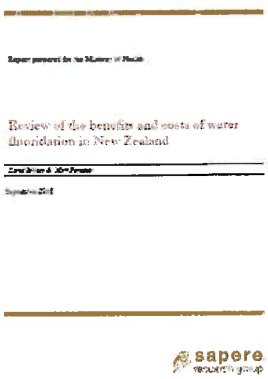
This paper cannot be included in our advice because:

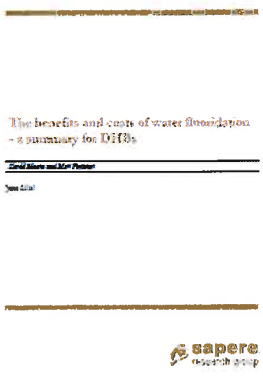
- See above: poor points in the conduction of the systematic review
- No information about confounders in the studies (diet, lead exposure, parent's schooling, drinking water from elsewhere)
- The reported effect (IQ<max one point) falls within the statistical error of the IQ test (which is three points)
- The results cannot be extrapolated to our population as they will not be exposed to the high levels of fluoride used in the studies in this meta analysis

What influences cognitive development the most?



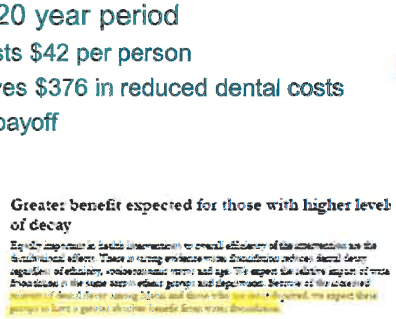
Is it cost effective?

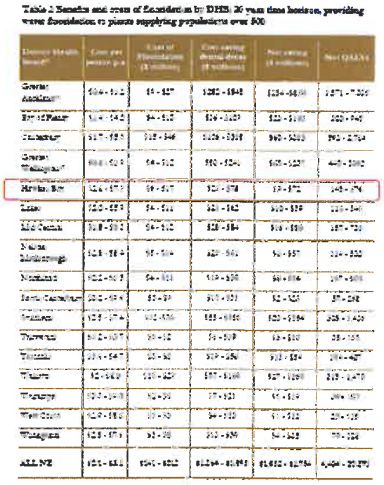




Is it cost effective?

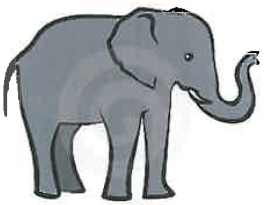
- For New Zealand
- Over 20 year period
  - Costs $42 per person
  - Saves $376 in reduced dental costs
  - 9x payoff





The Elephant in the Room

- It works
- The health benefits outweigh proposed health risks
- BUT
- My choice versus benefiting the community



Examples of public health measures

- Bicycle helmets and compulsory seat belts
- Limits on tobacco advertising and use
- Limits on alcohol and driving
- Removing sugary drinks from the DHB
- Curfews and alcohol free areas
- Fluoride in toothpaste
- Iodine in salt
- Chlorination of water
- Fluoridation of water
- Vaccination of children and adolescents

Who makes the decisions?

- Currently Local Councils
- Recently won multiple court proceedings confirming they have the lawful right to fluoridate
- Soon district health boards after an announcement by Cabinet in early 2016
- Awaiting legislation to see what will be involved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TEETH
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