



Strategic Plan 2010-2016

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Executive Summary

A concerted co-ordinated approach is required to address the growing and significant burden of disease caused through tobacco use, poor nutrition, lack of physical activity and misuse of alcohol. Four key categories of disease - Cardiovascular Disease, Chronic Respiratory Disease, Type 2 Diabetes and many Cancers - share these four risk factors.

“Creating a Better Future” is the response from CMDHB to this burden. It is a co-ordinated strategic plan aimed at reducing the risk factors for these diseases, slowing disease progression and improving health while building capacity and capability in the workforce and community and a sustainable whole of society approach. The Plan has been written within an initial five year view that seeks to provide an anchoring platform to support the long term vision of healthier communities.

Six core components have been identified.

1. Enhancing community leadership, capacity and action
2. Developing personal, family and whaanau capacity and leadership for active engagement in being healthy
3. Working with intersectoral partners to create environments that support healthy living
4. Improving the quality of clinical interventions for common diseases
5. Facilitating health and social care integrated around the needs of those affected by diabetes, cardiovascular disease, chronic respiratory disease and cancers and their families and whaanau
6. Advancing the knowledge base for action.

These components are strongly interlinked and are woven together to strengthen system capacity. A kaupapa Maaori approach will be embedded in the foundations of the implementation of this plan and will align the work of this plan with the vision of the DHB Whaanau Ora Plan:

“Whaanau inspired, enabled, resourced and in control of their own health”.

Clear differences exist in the prevalence, age of onset, morbidity and mortality of this group of diseases between ethnicities and between those living within differing socioeconomic areas. There are also gender differences in the prevalence of the modifiable risk factors and the impact of these conditions. A strong focus on reducing inequalities has been explicitly made within the Plan, with an emphasis on work with Maaori, Pacific and South Asian Communities; gender issues will also need to be considered in programme development.

“Creating a Better Future” has evolved from the solid design platform of Let’s Beat Diabetes. Learning’s from Let’s Beat Diabetes have been taken into consideration and alignment sought with emerging changes occurring across the health sector, new government policy and primary health care directions. The Plan also has a focus on current health targets and expectations of DHBs.

The Reasons for Concern

There are four main categories of disease responsible for a substantial proportion of deaths, long term illness or disability and reduced quality of life within Counties Manukau; they are diabetes, cardiovascular disease (CVD), cancers and chronic respiratory disease. Gout and renal (kidney) disease are closely related conditions that also contribute significantly to ill health in the Counties Manukau community.

The burden of illness associated with all of these conditions is expected to increase further with an ageing population. A concerted, co-ordinated action is required to address these largely preventable conditions, all of which share common risk factors. The following (fig1) demonstrates their interlinkages. Addressing these risk factors means working to support healthier diets, increase physical activity, eliminate smoking and eliminate harmful use of alcohol. In addition, improved care for those with these diseases can lead to improved health outcomes and can reduce morbidity, disability and death⁽¹⁾.

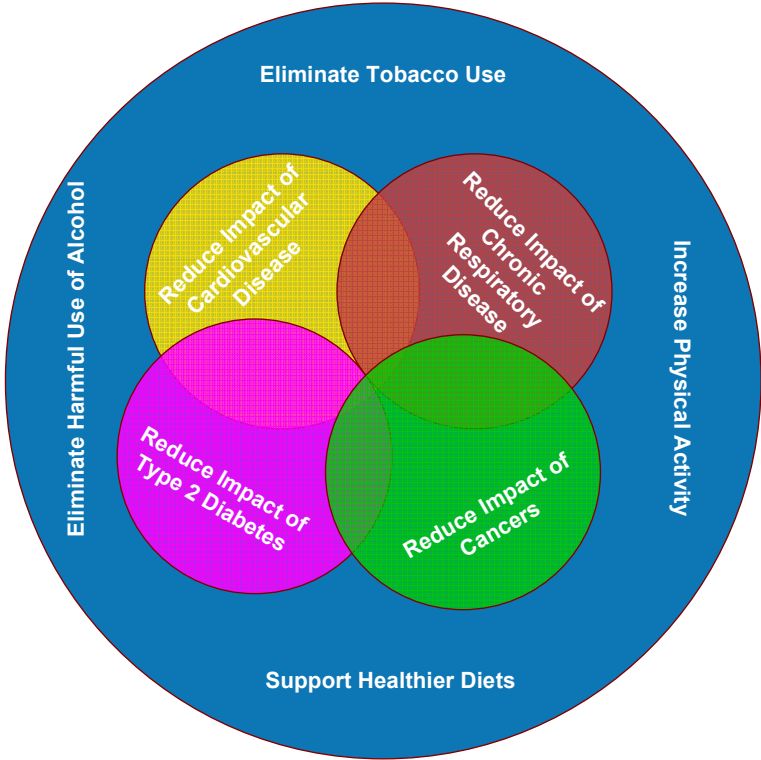


Fig 1: Interlinkages between the risk factors and NCD

Adapted from WHO, 2008-2013 Action Plan for the Global Strategy for the Prevention and Control of NonCommunicable Diseases (1)

Mental health disorders constitute the other major category of conditions contributing to long-term illness or reduced quality of life. While the risk factors for mental health disorders do differ from those for diabetes, CVD, cancers and respiratory disease, there are common links through the importance of early intervention in the social and physical environments of infants and young children, and the contribution of alcohol to cancers and obesity as well as violence and injury. The coexistence of mental health disorders and other diseases is also

being increasingly acknowledged. This plan does not underestimate the importance of mental health issues for the Counties Manukau community but it will have a more limited impact on those disorders than on diabetes, CVD, cancers and respiratory disease.

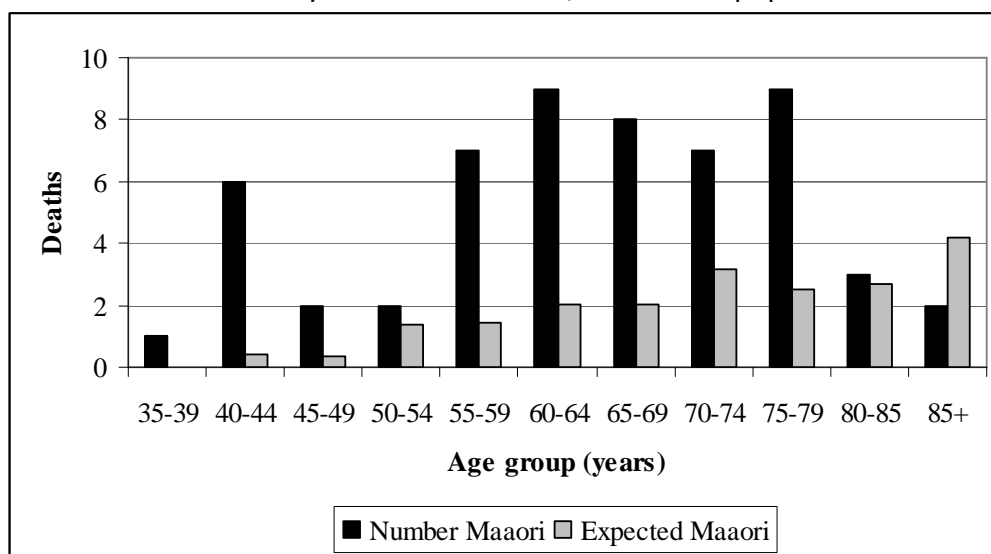
Preventing this group of diseases and mediating health consequences are essential to making our health system work both for the reduction in health care expenditures and the achievement of positive health outcomes, thereby reducing the need for expensive secondary and tertiary care. Currently growth in expensive interventions including dialysis is exceeding population growth rates and is likely to do so fuelled by an ageing population.

Dying from or living with long term illness or disability has economic and personal and or social implications for families and society beyond the direct health costs⁽¹⁾. Increasingly these diseases are affecting people in their “bread-winning” years with direct and indirect financial burden to the individual, his or her whaanau, and society more broadly. This contributes to the disparities present between populations within the Counties Manukau community as illustrated in Box 1

Box 1 Early deaths from heart disease rob whaanau and communities

An analysis of what conditions contribute to the life expectancy gaps for our Maaori and Pacific populations in Counties Manukau⁽²⁾ determined that in 2005, 56 Maaori deaths were attributed to cardiovascular disease. Only 20 of these deaths would have been expected if the cardiovascular mortality rate in Maaori had been the same as in our non-Maaori, non-Pacific population. Furthermore, Maaori deaths from cardiovascular disease tended to be in younger age groups as shown below. **These premature/early deaths not only rob whaanau of loved ones, but also rob the Maaori community of leaders and ‘breadwinners’, those who may be able to pass on cultural knowledge.**

Figure 2: Deaths from CVD amongst Maaori in CMDHB by age group in 2005, compared with deaths that would have occurred in Maaori if the Maaori population had the same CVD mortality as the non-Maaori, non-Pacific population



Effective interventions already exist for the prevention and control of diabetes, cardiovascular disease, chronic respiratory disease and cancer. It is possible to prevent or modify risk factors, prevent the onset or progression of disease and prevent early death. Health outcomes can be improved through early detection, appropriate treatment and effective rehabilitation⁽¹⁾. There is also increasing recognition of the importance of improving in utero and early childhood environments and experiences in setting the path for the future physical and mental health outcomes. Children and young people can also be important agents for change in their families and communities. All these interventions require both an informed, motivated and willing population and effective committed intra and intersectoral collaboration.

Inequalities

There are clear differences in the prevalence, age of onset, morbidity and mortality of disease between ethnicities, with Maaori, Pacific and for diabetes and CVD, South Asian people having considerably higher burden of disease. These differences in burden of disease are reflected in the life expectancy gaps for Maaori and Pacific peoples living in Counties Manukau. Over the past decade, the difference between life expectancy at birth for Maaori and non-Maaori/non-Pacific peoples in Counties Manukau has been in excess of 10 years. The gap for Pacific has been 5 – 7 years⁽²⁾.

A study of disease areas contributing to those life expectancy gaps identified

- lung diseases related to smoking,
- cardiovascular diseases,
- cancer ((non-lung),
- diabetes, and
- infant mortality

as the main causes of death that contribute to differences in life expectancy⁽²⁾. The proportional contributions to the total Life Expectancy gaps are summarised in the figures below. Note that as well as causing lung disease, smoking also influences rates and outcomes of conditions in the other categories, and many people with diabetes die from cardiovascular disease which is worsened by their diabetes, rather than directly from their diabetes, so actually in reality more than 7% for Maaori for example is attributable to diabetes. Also in relation to infant mortality, it is important to remember these figures are the amount of the Life Expectancy gap that is related to infant mortality, not the actual infant death rate¹.

¹ Even a relatively small number of deaths in infancy can make quite an impact on Life Expectancy (LE) at birth (whereas LE from say age 15yrs wouldn't be impacted by those deaths). It doesn't mean, for instance that 10% of Pacific babies are dying as infants (in the first year of life). The actual infant mortality rate (birth to 12 months) for Pacific babies from national data, was <1% (approx 8 per 1000) for the years 1996 – 2005⁽³⁾.

Figure 3: Contribution of each main cause of death area to Life Expectancy gap (lost years) between Maaori and Others (non-Maaori, non-Pacific) in CMDHB, 2005

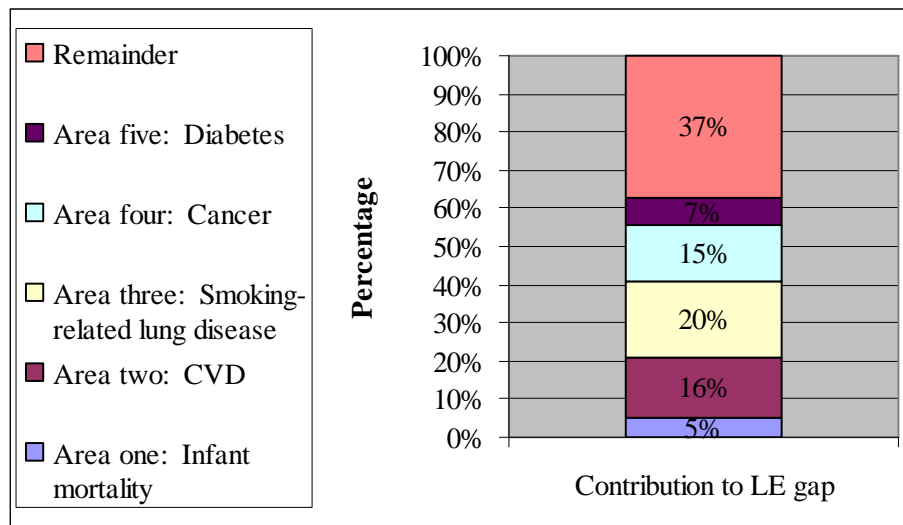
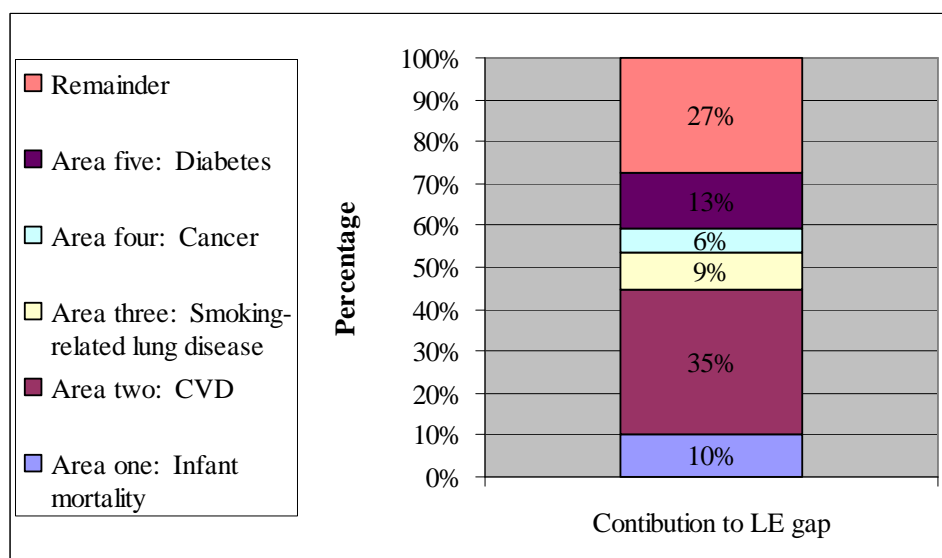


Figure 4: Contribution of each main cause of death area to Life Expectancy gap between Pacific and Others (non-Maaori, non-Pacific) in CMDHB, 2005



There are social gradients in the prevalence of illness, with those living in more socioeconomically deprived areas having higher rates⁽⁴⁾. Within Counties Manukau nearly 34% of the population are living in very deprived areas (NZ Deprivation Index deciles 9 and 10). The majority of our Maaori (57%) and Pacific peoples (73%) live within these areas. In addition many of our young people aged 0-14 years (43%) live within these areas of high deprivation⁽²⁾. These demographics further accentuate the risk of serious disease and premature death.

There are also gender differences in the prevalence of the modifiable risk factors and the impact of these conditions. Over all ethnicities females fare better on healthier nutrition, and misuse of alcohol, are less likely to be overweight but similarly likely to be obese. Maaori women are more likely to smoke than Maaori men, while for Pacific and Asian communities male smoking rates are higher than female. Males fare better on regular physical activity but are more likely to be admitted to hospital from avoidable causes (male:female ratio 1.1:1) and considerably more likely to die prematurely from avoidable causes (male:female ratio 1.6:1).

A population health approach can effectively tackle socioeconomic, ethnic and gender inequalities through an understanding of all the influences on health and how they can be mediated to improve health.

Appendix One details further the evidence base and rationale for this plan, including excerpts from the 2009 review of the Let's Beat Diabetes programme.

Purpose and Development of the Plan

The “Creating a Better Future” plan builds on the Let’s Beat Diabetes programme to facilitate a more coordinated, strategic and effective approach to the development and implementation of strategies and interventions to reduce the burden of diabetes, cardiovascular disease, chronic respiratory disease and cancers within Counties Manukau. The Plan provides:

- Linkages with existing national and regional plans related to the prevention and management of these diseases;
- Priority areas for funding prevention and treatment services within the region;
- A clear aim, goals, principles and strategic objectives for those engaged in achieving improved health and a reduced burden of disease.

Development Process

Development of this plan and strategic framework was informed considerably by the intensive literature review and consultation undertaken for the development of Let’s Beat Diabetes: A Five Year Plan to Prevent and Manage Type 2 Diabetes in Counties Manukau⁽⁵⁾. That work was added to with review of the latest international evidence and best practice and learnings from the Let’s Beat Diabetes Programme. In addition, key stakeholder meetings were held with Secondary Care Clinicians and representatives of existing Partner organisations which included Regional Territorial Authorities, ARPHS, PHO Health Promotion Working Group, Diabetes Projects Trust, Ministry of Health, Counties Manukau Principals Association and Plunket.

The focus of the consultations was to determine current actions and visions related to the prevention and improved management of diabetes, cardiovascular disease, chronic respiratory disease and cancers and to gain commitment for the Plan.

Alignment with National and CMDHB overarching strategies

The “Creating a Better Future” plan has been aligned to a number of National and CMDHB strategies. These include:-

Counties Manukau District Health Board’s Strategic Plan 2006-11;
Counties Manukau District Health Board Alcohol and Other Drugs Services Plan 2009-2014;
CMDHB Whaanau Ora Maori Health Plan 2006-2011;
CMDHB Pacific Health and Disability Action Plan 2006-2010;
CMDHB Primary Health Care Plan 2007-2010;
CMDHB Smokefree Plan;
CMDHB Maaori Gout Action Plan,
CMDHB CVD Prevention Strategy 2008;
Healthy Eating Healthy Action Framework (Ministry of Health, 2003);
He Korowai Oranga –Maori Health Strategy (Ministry of Health, 2002);

'Ala Mo'ui: Pathways to Pacific Health and Wellbeing 2010 - 2014;
Reducing Inequalities in Health (Ministry of Health, 2002) and emerging Ministry of Health
frameworks for long-term conditions.

In addition, the Plan has been aligned to emerging new government policy and primary
health care directions. The Plan also has been developed to ensure a focus on current health
targets and expectations of DHBs, including those related to the management of Diabetes
and CVD, Breastfeeding, Ambulatory Sensitive Hospitalisations (ASH) and Smoking Cessation
Support.

The Plan “Creating a Better Future”

Aim

The aim of this plan is to prevent or delay the onset of diabetes, cardiovascular disease, chronic respiratory disease and cancers and to improve health outcomes and quality of life and to reduce health inequalities.

Goals

1. The incidence of diabetes, cardiovascular disease, chronic respiratory disease and cancers is reduced overall and in particular rates in those populations experiencing the greatest inequalities in health outcomes are reduced.
2. Those living with diabetes, cardiovascular disease, chronic respiratory disease and cancers experience an improved quality of life, health and wellbeing, particularly amongst those populations experiencing the greatest inequalities in health outcomes.
3. People are inspired and empowered to have increased control of the determinants of their own health and that of their children, interact effectively with health care and support services and be active partners in preventing and managing disease.
4. Health care and support services are built around the needs of the population, fit for purpose, responding effectively to the present disease burden and increasing opportunities for health-promoting activity. This includes appropriate reporting and sharing of information to assess health needs, monitor response and ensure clinical quality.

Strategic Objectives

1. Support structural change to ensure responsiveness to the need for prevention and improved management of diabetes, cardiovascular disease, chronic respiratory disease and cancers.
2. Develop new, or build on existing effective initiatives that promote active engagement in being healthy, risk factor reduction across the whole life course and improved identification and management of diabetes, cardiovascular disease, chronic respiratory disease and cancers.
3. Work in partnership across sectors to create environments that support active engagement in being healthy.
4. Consolidate and further develop a knowledge base for action.

Foundation Principles

The Treaty of Waitangi is the basis of a unique relationship between Tangata Whenua, Maaori, and Tangata Tiriti, all other non-indigenous people groups in Aotearoa New Zealand. Counties Manukau District Health Board acknowledges the importance of this Treaty relationship, which confers a set of rights and obligations on each Treaty partner. This relationship has been described as ‘the promise of two peoples to take the best possible care of each other’⁽⁶⁾.

The principles of Partnership, Participation and Protection have been derived from the Treaty of Waitangi to better understand how the Treaty may be applied. CMDHB also considers these Treaty of Waitangi principles as an appropriate basis for its approach to working in partnership not only with Maaori but more broadly with other populations and intersectoral partners.

- Partnership – Institutions, organisations, communications, families and individuals working together to address illness and create health. Formal partnerships based on aligned goals and civic responsibilities will be further developed and actively maintained.
- Participation- The prevention and control of diabetes, cardiovascular disease, chronic respiratory disease and cancers is enabled through self management and via the ongoing participation of family, whaanau, community and health professionals in the lives of people with illness. Participation in service design, development and governance is actively supported.
- Protection – The increase in diabetes, cardiovascular disease, chronic respiratory disease and cancers has been facilitated through obesogenic environments and the supply of and marketing of tobacco and alcohol. These environments are a threat to the wellbeing of our children and families. There is an obligation on behalf of government, business and community leadership to protect citizens from these environmental hazards. Together these environmental hazards cause more damage than more obvious threats such as road trauma.

A Kaupapa Maaori foundation

A kaupapa Maaori approach will be embedded in the foundations of the implementation of this plan. Like the roots of a tree, this foundation needs to be firm and strong so that all the branches of the tree can draw from it. This foundation will align the work of this plan with the vision of the DHB Whaanau Ora Plan⁽⁷⁾:

“Whaanau inspired, enabled, resourced and in control of their own health”

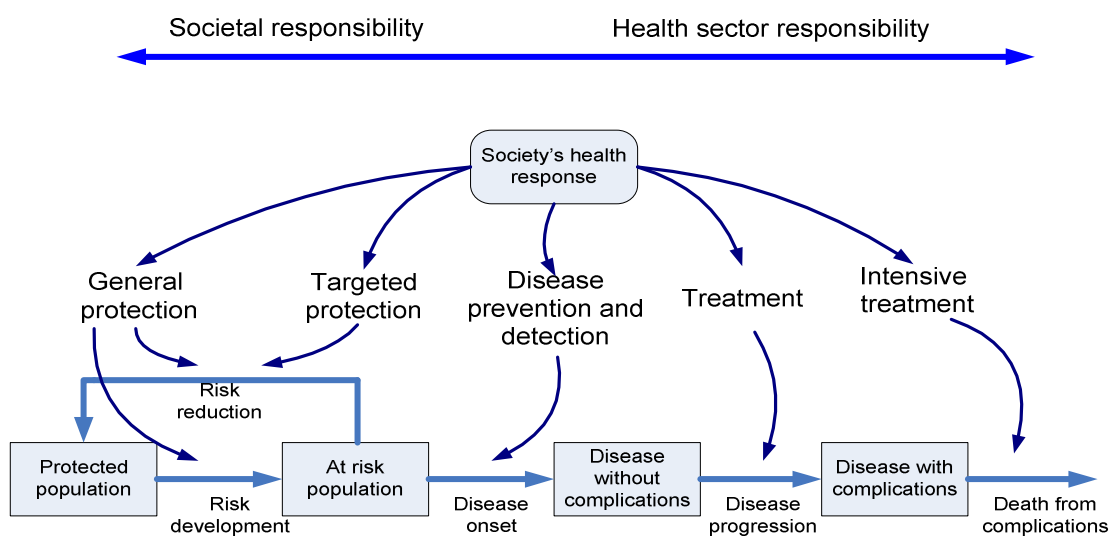
Other key principles

Drawing and building on the development and learnings from Let's Beat Diabetes and other local, national and international programmes, the following are also key principles for the 5 year plan for addressing diabetes, cardiovascular disease, chronic respiratory disease and cancers :

1. Long term vision

Reductions in the rate of disease will not happen within a short time. A committed long term view is needed to guide sustained effective action with a 20 to 50 year time period.

2. Whole of society, whole life course, whole whaanau and family, systems approach



Adapted from model developed by CDC

A comprehensive co-ordinated strategy that simultaneously promotes population level health promotion and disease prevention programmes and actively engages groups and individuals at high risk, while maximising population coverage with effective treatment and care is internationally recognised as the most effective approach to diabetes, cardiovascular disease, chronic respiratory disease and cancers ^(1,8). This requires action at multiple points across health and society systems. In addition, a whole of life course approach recognises the long-term effects of physical and social exposures during pregnancy and childhood on later risks of chronic diseases and long-term conditions, the importance of interventions early in life, and the role children and young people can play as agents for change in their families and communities.

3. A reducing inequalities focus

The burden of diabetes, cardiovascular disease, chronic respiratory disease and cancers remains disproportionately high among Maaori, Pacific, South Asian and low socioeconomic groups. The untargeted provision of healthcare may ironically increase disparities as those in higher socioeconomic groups tend to gain better access to

interventions. However there is evidence that targeting healthcare provision may reduce disparities. Therefore, a strong focus of this plan is an explicit committed focus on those populations and groups experiencing inequalities.

4. *Coordinated and holistic approach*

Models of health, and consumer and community feedback, emphasise the importance of holistic approaches which don't divide people up into separate diseases and conditions⁽⁹⁾. However health system approaches frequently still do so. The risk factors which link diabetes, cardiovascular disease, chronic respiratory disease and cancers make a coordinated approach to the 'package' or cluster of related diseases both logical and practical, as well as good practice.

Māori and Pacific models of care also emphasise the important interconnections between physical, social, emotional and spiritual aspects of health, with connection to whānau, family and land being fundamental². Whānau Ora approaches highlight the importance of working with and resourcing not only individuals within the whānau, but also the collective capacity of the whānau. This means 'whānau strengths are endorsed, whānau ownership of solutions and actions is encouraged, and partnerships between whānau and providers are the norm'⁽¹⁰⁾.

5. *Learning environment*

Building and sharing evidence of what works and what doesn't and learning from others locally, nationally and internationally provides an environment through which achieving the vision is most likely to succeed. This informs health investment and translates to best practice.

6. *Developing the workforce*

The sheer size of effort required to effect change for diabetes, cardiovascular disease, chronic respiratory disease and cancers requires a significant investment in growing the capability and capacity of our workforce. Better use can be made of our existing workforce through education and expansion of skills for the prevention and improved management of these diseases. All practitioners across the spectrum from community and primary health care to secondary and tertiary practitioners and clinicians can be engaged in health-promoting practice and preventative care.

Equipping patients and their whānau and families with self management skills needs to happen in parallel to building the skills of the formal health workforce. This provides an as yet largely untapped opportunity for sustainable, scalable and culturally appropriate support.

7. *Enabling Structural Changes to the Health System and community organisations*

More patient-centred ways of working, communicating and training within the health system and community organisations are needed to support improved care and flow of information.

² Examples include Te Whare Tapa Whā (Durie M, 1998), Fonofale (Pulotu-Endemann F, 2001) and Fonua (Tu'itahi S, 2007).

Structure of the Programme

Core Components

Any plan for tackling the 'package' of diabetes, cardiovascular disease, chronic respiratory disease and cancers needs to be complex and wide ranging to be effective. In order to provide structure for both strategic and operational planning, the key aspects of the response needed have been grouped into the core components identified below.

These components are strongly interlinked and are woven together to strengthen system capacity. The result is a co-ordinated strategy to reduce the risk factors for diabetes, cardiovascular disease, chronic respiratory disease and cancers, slow disease progression while building capacity and capability within the workforce and a sustainable whole of society approach.

The action areas of the previous Let's Beat Diabetes plan⁽⁵⁾ are encompassed in these core components and the linkages described in Appendix 2. Future operational plans will detail actions and action leaders and in addition high level Key Performance Indicators will be developed.

1. Enhancing community leadership, capacity and action
2. Developing personal, family and whaanau capacity and leadership for active engagement in being healthy
3. Working with intersectoral partners to create environments that support healthy living
4. Improving the quality of clinical interventions for common diseases
5. Facilitating health and social care integrated around the needs of those affected by diabetes, cardiovascular disease, chronic respiratory disease and cancers and their families and whaanau
6. Advancing the knowledge base for action.

1. *Enhancing community leadership, capacity and action.*

Rationale

The foundations for the long term reduction in diabetes, cardiovascular disease, chronic respiratory disease and cancers require real sustainable change and support from our whole society. It is individuals, within families and whaanau, within communities who make decisions about their lives. Empowered communities change their environments through action, advocacy, local democracy and consumer choice. Significant capacity and leadership already exists within our community, families and whaanau. This Plan will need to support and enhance this capacity, leadership and action.

The call for the community to lead and champion was voiced during consultation for the Let's Beat Diabetes Programme. From the workshops, hui and fono on how to support community leadership a number of core concepts emerged which are echoed in the international literature.

- For Maaori, there is a need to work and empower within the roots of communities and whaanau, kaupapa Maori methodologies and cultural norms in order to change health related behaviour. This means working with whaanau in a number of traditional settings and environments such as marae and koohanga reo. It also means working with key communities of interests (e.g. defined by geography and demography) and places where whaanau gather (e.g. sports clubs). Wherever that engagement takes place, the key is to work with the people who have authority in their community and whaanau.
- While there is much cultural diversity among Pacific peoples, there are two commonly held Pacific beliefs. The first is that Pacific peoples have a holistic view of health which can be described within the context of having an inter-dependence between the spiritual, mental and physical beings of individuals and communities. The second belief is family, which includes their immediate and extended family, play a significant role in health and wellbeing. To reduce health inequalities for Pacific peoples, critical factors include understanding the changing definitions of Pacific community identity (for NZ-born and migrant populations), further developing leadership capacity and investing in Pacific health capacity. Building on what works for Pacific including existing opportunities within Pacific church settings is appropriate as well as encouraging effective collaboration with other agencies and ethnic-specific community groups.
- For Asian people differing strategies will be needed to target the different ethnic groups which have differing needs in terms of prevention of diabetes, cardiovascular disease, chronic respiratory disease and cancers. Within the South Asian population Temple-based activity and specific South Asian Organisations provide good avenues through which to progress.
- The workplace is an area which can have a significant positive influence on health and where there is great opportunity for improvement.

Goals

- Strengthened consumer and community involvement in decision-making, planning and implementation of initiatives related to reducing the risk of and improving care for those with diabetes, cardiovascular disease, chronic respiratory disease and cancers.
- Improved support networks and connections of families and whaanau and communities to health services.

Priorities

- Assist communities to identify problems that impact on their ability to make healthy choices and encourage them to identify and implement solutions
- Improve recruitment and mentoring for train-the-trainer programmes
- Support local communities to foster leadership and community empowerment.

2 *Developing personal, family and whaanau capacity and leadership for active engagement in being healthy.*

Rationale

Developing and enhancing personal, family and whaanau capacity and leadership for active engagement in being healthy requires an understanding of the implications of making healthy choices, the ability to make informed decisions and the knowledge, skills, tools and resources to take action to protect and promote the health of the individual, family, whaanau and community. These same skills and resources are important in better managing disease and promoting a better quality of life.

Goals

- Greater health information seeking behaviour
- Individuals, families and whaanau having better information and greater confidence to engage with the health sector and make informed choices about their health and wellbeing;
- Families and whaanau taking leadership in improving their health
- Improved knowledge, understanding and attitudes towards being healthy

Priorities

- Developing a health literacy improvement plan focussing on reducing health inequalities for diabetes, cardiovascular disease, chronic respiratory disease and cancers.
- Integration of self-care concepts into core business processes in both hospital and community settings.
- Identify and implement effective and culturally appropriate tools and resources to support self-care
- Development and implementation of consistent messages related to the prevention and management of diabetes, cardiovascular disease, chronic respiratory disease and cancers
- Encourage and support the provision of community based education programmes that focus on supporting healthy choices
- Current relevant initiatives are reviewed to ensure that the information, skills and tools to support active engagement are incorporated.

3. Working with intersectoral partners to create environments that support healthy living.

Rationale

Working with intersectoral partners to put in place policies and interventions that modify the physical and social environment are crucial for large scale population level support for individuals to make healthy choices. Policies and interventions that modify the environment can support improved nutrition, increased physical activity and decreased smoking and alcohol availability and consumption.

Physical activity can be enhanced through urban design and the increased availability of physical activity opportunities within schools, Early Childhood Education Services, parks and other settings. Urban design through retail planning can also manage the availability and access to healthy food options, tobacco and alcohol.

The food environment during pregnancy, childhood, adolescence and adult life all contributes to health and can cause disease. The Food Industry itself has recognised that there is an obligation for responsible corporates to work with health agencies to develop an overall healthier food environment with less fat, sugar and sodium content.

Goals

- Improved urban and infrastructure design which supports healthy choices and community social cohesion
- Healthier food choices are developed and/or promoted which supports reduced fat, sugar and sodium intake and increased fruit and vegetable intake
- Settings in the community physically and socially support healthy choices

Priorities

- Strengthen partnerships and gain commitment to ensuring that policies that support healthy choices are developed and/or implemented
- Support initiatives that improve infrastructure that promotes physical activity and active leisure opportunities
- Support initiatives that increase access to locally grown produce
- Work with the food industry and other partners to make changes to reduce fat, sugar and salt consumption and increase fruit and vegetable consumption

4. Improving the quality of clinical interventions for common diseases.

Rationale

Quality can be defined as the degree to which the services for individuals or populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge⁽¹¹⁾. Within the context of this core component, improving the quality of clinical interventions includes screening, primary and secondary prevention as well as treatment and taking into account the patients' perspective. Improvements in quality are necessary to support people-centred, equitable, safe and high-quality services that continually improve and that are culturally competent.

Goals

- Strong clinical governance
- Clinical systems support high quality evidence-based practice
- Increased knowledge, cultural responsiveness, skills and practice of health professionals who care for people at risk of, or with diabetes, cardiovascular disease, chronic respiratory disease and cancers
- A skilled workforce that can deliver effective brief interventions and self-management support backed up by appropriate referral options.

Priorities

- Support an evolutionary redesign of systems of care to support delivery of quality services.
- Support strengthened clinical governance of clinical interventions for diabetes, cardiovascular disease, chronic respiratory disease and cancers
- Develop clinical networks to provide ongoing linkages and partnerships between health professionals in order to improve health outcomes
- Develop integrated care pathways to facilitate high quality clinical interventions for diabetes, cardiovascular disease, chronic respiratory disease and cancers
- Tailor the quality and quantity of resources to reflect priority populations and their needs
- Increase access to cardiac and pulmonary rehabilitation within primary health care
- Develop approaches to educate and train existing and future health workers to improve their knowledge and skills for the prevention and control of diabetes, cardiovascular disease, chronic respiratory disease and cancers. This includes the provision of brief advice and appropriate referral support to people that require assistance to support healthy choices e.g. smoking cessation and changes to drinking behaviour
- Further develop and support multidisciplinary team capabilities across the health system.

5. *Facilitating health and social care integrated around the needs of those affected by diabetes, cardiovascular disease, chronic respiratory disease and cancers and their families and whaanau.*

Rationale

Achieving the aim of this Plan to prevent or delay the onset of diabetes, cardiovascular disease, chronic respiratory disease and cancers and to improve health outcomes and quality of life for those with disease and to reduce health inequities requires a combined health sector and intersectoral response involving social support as well as support from the community and voluntary sector.

This combined response must be respectful of, and responsive to the individual and their family and whaanau preferences, beliefs, needs, and values and ensuring that their values guide decisions.

Primary Health Care services are core as the first point of contact for the majority of the community, and are a key point of reference on transfer of care from secondary services back

to care in the community. There is a need for responsive primary health care that addresses the complex needs and family dynamics of those with diabetes, cardiovascular disease, chronic respiratory disease and cancers, particularly those groups experiencing inequalities. There is also a need for increased collaboration between primary and secondary services.

Goals

- Improved co-ordination and continuity of care provided for those with diabetes, cardiovascular disease, chronic respiratory disease and cancers and their families and whaanau
- Health services and relevant information are easily accessible
- Whole of life care, with a focus on family approaches and Whaanau Ora models.

Priorities

- Ensure that programmes and interventions are in keeping with the skills and culture of participants
- Provide more opportunities for families and whaanau to be involved in the care planning process and be treated as an 'equal' in clinical encounters
- Create service networks and care pathways that cut across health and sectoral boundaries to deliver community based services that improve the care and support provided to those with diabetes, cardiovascular disease, chronic respiratory disease and cancers
- Support the roll out of Health-Promoting Practices
- Explore opportunities to contribute to and develop Whaanau Ora models of care.

6. Advancing the knowledge base for action.

Rationale

The knowledge base for action supports strengthening system capacity through providing a strong base from which to inform decision making, health needs assessment and prioritisation as well to form a basis for setting and monitoring progress against targets, changes in health outcomes and progress towards equity.

Goals

- Informed decision making, priority setting and allocation of resources
- Relevant information available to all communities and clinical groups in an understandable format

Priorities

- Create a learning and evaluative culture
- Create a knowledge repository and share with others
- Improve the ability to capture ethnic diversity within Pacific and Asian communities in monitoring progress and changes in health outcomes.

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Appendix One: Further evidence base and rationale

1. Information about the prevalence of the diabetes, cardiovascular disease, chronic respiratory disease and cancers and their risk factors is available from health status documents on the CMDHB website:

Counties Manukau DHB Health Needs Assessment, 2008

Health Needs Assessment for Asian People in Counties Manukau, 2008

Maa Taatou, Moo Taatou. Information to support Maaori Health Planning in Counties Manukau, 2007

Ethnic-specific Health Needs Analysis for Pacific People in Counties Manukau, 2007

Mental Health and Addition in Counties Manukau: Health Needs Analysis, 2007

2. Review of the Let's Beat Diabetes Programme

In November 2009 a review was undertaken of the progress made by the Let's Beat Diabetes programme. The main conclusions of that review were³:

Despite the many challenges, there has been good progress in this area over the last four and a half years, including:

- **Development of a good foundation and networks for collective action** with community partnerships, relationships and 'common interest' connections;
- **Large scale mobilisation of community partners and coordinated activity**, with over 500 organisations having implemented or supported aligned initiatives in the district;
- **Attracting more than \$10 million in additional funding** to assist with these efforts (over and above the CMDHB five year funding commitment);
- **Increased conversation and dialogue in the community** around obesity and diabetes, nutrition and physical activity;
- **Hard-earned experience and accumulated understanding of network management and cross-sector collaboration** on a large scale, complex project of this nature; and
- **Rich new knowledge and insight** from evaluation learnings and major LBD population surveys in Counties Manukau.

In terms of improving awareness, knowledge and attitudes, a comparison of results from two large population surveys spaced 2.5 years apart indicates LBD made good gains in some areas, offset by disappointing results in others. Timing differences in

³ The material in this section is extracted from the Executive Summary of the review report, Let's Beat Diabetes. Looking back, moving forward.

the two surveys (the first in summer, second in winter), plus the impact of the recession biting in 2009 (thus higher unemployment and tighter household budgets) may have impacted the results.

Positive results picked up by the 2009 survey include pockets of improvement around the benefits of healthy eating, impact of overweight on health, concerns about getting diabetes, and a more supportive environmental support. Examples of areas where the results were disappointing, in terms of no movement or deterioration at a population level, include associating the control or reduction of fat intake and control or reduction of portion/serving size with achieving a healthy weight, associating being active or maintaining a health weight with preventing diabetes and interest in being more active.

The finding that most of the obese population do not perceive themselves as being obese is concerning, as they are less likely to respond to messages associating obesity with health problems and diabetes.

Behaviour changes included a reduction in reported fizzy drink consumption, an increase in Pacific people consuming 5+ fruit and vegetable servings per day, and more South Asians removing fat from meat when cooking. These were offset by fewer people being regularly physically active plus an increase sedentary behaviour.

Participation in diabetes management programmes is either increasing or on target. Screening for complications and prescribing medication as per guidelines has increased, while glycaemic control indicator is on target. Blood pressure and cholesterol indicators are poor though. In particular, the proportion of CCM patients with high levels of LDL (bad) cholesterol has not improved from December 2007 baseline data.

These results confirm that, while gains have been made, the problem has not gone away. Nor can it be expected to, not without further action and interventions.

On current trends, future projections estimate:

- The number of obese people in Counties Manukau will increase by 80% over the next 20 years, to exceed 195,000 by 2027.
- The number of people with diabetes will increase by 100% in 20 years, doubling the current numbers to 72,000 by 2027.
- Only one third of that 72,000 currently have diabetes. 64% of the projected 72,000 diabetes cases in 2027 will come from people who are currently obese and others not currently obese (but heading that way). **These are preventable cases.**

In terms of direct health sector costs, CMDHB analysis shows that:

- Known diabetes cases cost CMDHB an estimated \$83 million in pharmaceutical, laboratory and hospitalisation costs in 2008.
- If the average cost per diabetes patient was the same in 2027, it would cost CMDHB \$141 million in that year (in 2008 dollar terms), up \$60 million from 2008.

- The cumulative additional cost (over and above the \$83 million) over the 20 year period would be around \$490 million.

This does not include the cost of GP visits, outpatient clinics, and other diabetes initiatives.

- Interventions that reduce the obese population by 1% every 3 years would reduce diagnosed diabetes numbers in 2027 by 6,200. This would equate to savings of \$14.8 million in 2027.
- Cumulative savings between now and 2027 would be \$111 million in those cost areas alone.

Potential savings are substantially higher once other areas are taken into account.

On the basis of these findings, it was recommended that CMDHB commit to a further five year plan and funding path, with four key changes recommended for the 2010-2015 plan:

1. **Add cardiovascular disease (CVD) and smoking to the programme.**
2. **Give increased emphasis to primary care and secondary care**, including service improvement and integration across both health systems.
3. **Devolve more accountability** to LBD partners for project leadership and management, matched with appropriate contracts, reporting and representation on partnership groups.
4. **Pursue fewer and larger projects.** Some innovation is still needed, but emphasis and resource should be concentrated on driving a smaller number of larger initiatives.

3. Evidence and Best Practice Recommendations: Key Elements of an Effective Approach

An extensive evidence review, involving both formal 'literature' based evidence and extensive community consultation was undertaken in 2004 to inform the development of the Let's Beat Diabetes (LBD) plan. In addition, considerable local evidence has been gathered by way of formal evaluation and less formal monitoring and review of the LBD programme over the five years of its implementation. Much of this learning was compiled in the paper 'Let's Beat Diabetes. Looking back, moving forward', presented to the Board's Community and Public Health Advisory Committee in November 2009 [1]. The size of the problem remains of grave importance to CMDHB.

The material in this appendix builds on that evidence base to inform prioritisation and implementation approaches for the DHB going forward. It is organised under the following headings:

1. Not 'either/or' but 'and'
2. Importance of the 'package' /cluster
3. A 'Whole of Society', Partnerships approach

4. 'Whole of Continuum (health-risk-disease)' approach
5. 'Whole of Family and Whaanau' approach
6. Building knowledge/evidence base.

In the rest of this appendix the 'package' of diabetes, cardiovascular disease, chronic respiratory disease and cancers is termed 'noncommunicable disease' (NCD) in line with World Health Organization documents.

1. Not 'either/or' but 'and'

Population and high-risk approaches

Both population-based and high-risk approaches are important in impacting both the incidence and outcomes for NCDs.

For example, undertaking cardiovascular risk assessment identifies people who are at high risk of cardiovascular disease (CVD) complications. Evidence is clear that those at high risk benefit from more intensive cardiovascular management, such as life style modifications and highly effective drug treatments⁴ [17]. Those benefits extend to potential cost savings for the health care system [18].

While it is highly desirable to reduce the CVD risk of the high risk group with intensive management, many people who will subsequently develop CVD events (up to 70% in men and 82% in women), would previously have been identified in the low to moderate risk group [19]. Since there are so many more of these people in the community, a population approach to reduce everyone's risk is needed in tandem with the targeted 'high risk' approach to reduce the overall burden of disease.

Modelling from a range of countries, including New Zealand, consistently shows that both treatment of disease and risk factor reduction have contributed to the decline in mortality from cardiovascular disease over the past three decades, but that risk factor changes have played a larger part than costly invasive interventions, such as coronary artery bypass grafts [20-22]. While in general, preventive measures tend to produce longer rather than short term improvements in outcomes, reductions in cholesterol, blood pressure and smoking can impact cardiovascular mortality within 12-24 months, refuting the argument that there isn't time to wait for the results of preventive measures [20].

Similarly modelling work for the LBD programme established that most people who will have diabetes in 10-20 years do not have diabetes yet [23]. Hence programmes targeting only those with current disease will miss many opportunities to influence future outcomes. However improved engagement and management of those with current disease will reduce their disease complications and therefore future social

⁴ Includes both those with pre-existing CVD (secondary prevention) and those without clinical evidence of existing CVD (primary prevention)

and health system costs. This is why both population and targeted high risk approaches are necessary. Further understanding about these concepts gained from system dynamic modelling is outlined in Addendum One.

Taking a population-based approach means addressing health inequalities between populations, using both targeted and wider population initiatives. Prioritisation is given to reducing the impacts of both risk factors and disease on those most affected by them.

Prevention and management

There is a need for both population and high risk approaches, it is clear that it is also not a choice between prioritising 'prevention' or 'management' but rather continuing to develop a comprehensive approach covering both. Both share the need for a systems based approach [24]. In the words of the obesity prevention and management guidelines from the UK National Institute of Clinical Excellence (NICE): - *Although there is no simple solution, the most effective strategies for prevention and management share similar approaches. The clinical management of obesity cannot be viewed in isolation from the environment in which people live (P5, [24]).*

2. Importance of the 'package' /cluster

Nationally and internationally there is increasing recognition of the need to address the 'package' of common risk factors and resulting NCDs together [2, 25, 26]. The New Zealand Guidelines for cardiovascular disease assessment now focus on the global or absolute risk of a person, rather than individual risk factors, incorporating screening for diabetes and smoking behaviour as part of cardiovascular disease assessment [27]. Clinical trial evidence has shown that the size of treatment benefits is directly proportional to the pre-treatment absolute/global CVD risk [28].

As noted there are overlaps in the opportunities for intervention to prevent and treat the four categories of major NCD. For example smoking cessation is an important aspect of primary and secondary prevention for cardiovascular disease, reducing all-cause mortality among patients with CHD by up to 36% [29]. Smoking cessation is also important to help prevent a number of prevalent cancers (e.g. lung) [13], chronic obstructive respiratory diseases [30] and the incidence of diabetes and its complications [31]. Further evidence about the overlaps in the risk factors and diseases in the 'package' of major NCDs is presented in Addendum Two.

In addition to the scientific logic of addressing the risk factors and NCDs through an integrated approach, feedback from Counties Manukau communities is clear that they don't appreciate health workers coming with an agenda limited to one aspect of their health when they have a number of interrelated needs. This is in keeping with holistic Maaori and Pacific models of health [32, 33]. Consumers and communities are also clear that they need consistent messages, no matter who they are interacting with in the health system [34].

This means all health workers, from hospital specialists through to community health workers, no matter what their area of specialisation, need to be confident and competent to provide information and undertake brief intervention/assessment and referral for issues related to nutrition/physical activity/smokefree/alcohol use.

3. A 'Whole of Society', Partnerships approach

While evaluation of 'whole of society' approaches is inherently challenging, and hence evidence about the detail of 'what works' at this level is more limited, there are strong best practice recommendations about the need for such an approach.

International support for the 'whole of society', partnerships approach

The Foresight 'Tackling obesities: future choices' project in the UK concluded that a whole system approach, involving a mix of interventions targeting a combination of the determinants of obesity are essential is critical [35]. The project also highlighted the need to act before having as much evidence as would be ideal about proposed interventions and their effectiveness. Similar 'whole of society', systems level approaches are advocated in the USA [36] and Australia [25] for addressing modifiable risk factors and NCDs.

The key priorities identified for improving the prevention and management of obesity by the National Institute of Clinical Excellence in the UK reinforce the need for a partnerships and a whole of society approach, and include:

- ensuring that preventing and managing obesity is a priority, at both strategic and delivery levels
- working with local partners, such as industry, workplaces and voluntary organisations
- working with those in education to enhance the whole school/pre-school environment and ensure that the ethos of all school/preschool policies supports the changes needed
- addressing the need for multicomponent interventions in clinical settings
- working with families and in social settings.

They advise addressing the concerns of local people from the outset and also note that interventions may include promotion, awareness-raising activities but these should be part of a long-term, multicomponent intervention rather than one-off activities [24].

Partnerships with communities

Partnerships with communities need to happen at all levels and all ages. CMDHB-sponsored work with young people about their health issues in Otara is an example of the importance of giving young people the opportunity to participate and have their voices heard. In the Otara community it was easy for adults to think the need for the young people was better access to youth-friendly health services. While that was part of the issue, young people identified that their environments, social and physical, mattered to them, and had clear ideas about how those could be improved [37].

Intersectoral partnerships

The LBD programme has established a wide variety of intersectoral partnerships to leverage influence and effect change [1]. Some of the more obvious outcomes of this have attracted considerable attention (e.g. action with the food industry to swap to low-sugar fizzy drinks in MacDonalds, improving the availability of lower fat milk varieties in Mangere supermarkets). Others have been less obvious but nevertheless important, for example work to influence the Regional Transport Strategy. Evaluation of alliances to effect change in the tobacco environment in the UK has reiterated the experience of LBD – that to establish strong alliances beyond the health sector can take several years and requires ongoing organisational leadership and commitment [38].

Going forward CMDHB needs to be continually asking ‘what is the value-add for our partners’, what are their potential interests that might intersect with those of health. For example, Councils may be looking to meet their obligations under the Local Government Act 2002, while those in the food industry will need to protect their economic interests along with considering the advantages of being seen as a socially responsible company.

4. ‘Whole of Continuum (health-risk-disease)’ approach

Integration across the continuum

Prevention is critical to reduce the incidence of NCDs and their future impact on the health system but at same time there is a need for improved clinical interventions to ensure goals to slow progression and improve quality of life for those with NCD are met. This requires action in both primary health care and secondary care settings, and improved integration across community and hospital services. The review of LBD in the latter half of 2009 identified the need for increased attention to these health services responses to balance the impetus coming from the wider society responses [1].

Support for smoking cessation demonstrates the need for integrated action across the continuum from health through risk to disease and from community through primary health care and secondary care.

A hospitalised smoker may be offered Quit support while an inpatient and the Quitline service for ongoing NRT support after discharge. However it is known that relapse rate is high for newly quit smokers and there will be a likely need for ongoing support for future quit attempts. Signalling this to all those who may provide services to the person in the community (e.g. GP or practice nurse, community health worker, allied health practitioner) would support those providers to take systematic action to link the person to other local services for further follow-up. Community action to ‘denormalise’ smoking would also support this person in their quit attempts, along with equipping families and whaanau to support each other to be smokefree.

Proactive coordinated care

Chronic care models have identified the need for proactive coordinated care [39], as distinct from reactive care that responds to acute presenting needs. This requires health care delivery system redesign to facilitate regular planned visits with adequate time to support models of practice based on collaboration, both with patients and their families, and other colleagues and organisations [40]. For example rather than people falling through gaps between a hospital admission and enrolment in the CMDHB Chronic Care Management (CCM) programme, discharge data could be more actively linked to the CCM programme to ensure active followup and to make sure the programme is adequately addressing those with the highest need, not just those who are easy to engage.

The principles of proactive coordinated care need to apply across the continuum from screening and early intervention, through diagnostic and treatment decisions to palliative care.

While multi/interdisciplinary teamwork is seen to be key to effective clinical care for NCDs going forward (e.g. [30, 41], there are still many questions to be answered about how to effectively equip health practitioners for these roles, how to best structure health systems to support effective teamwork, and the nature and impact of primary health care 'generalism' in clinical practice in the context of a team approach [42, 43].

Self-management support central

Improved action across the whole health-risk-disease continuum also requires a fundamental shift in the way services are provided so that strengthening individual, family and whaanau capacity for self-management is central.

Traditional patient education has been found to be relatively ineffective at changing behaviour [44]. Self-management focuses on improving 'self-efficacy', teaching practical and generic skills to help people and their families and whaanau to manage their health conditions. This is more effective than simple patient education and has resulted in support of self-management being seen as key for improving health care for people with chronic diseases and long-term conditions [45-47].

Improving health literacy

Improving health literacy is central to supporting self-management. Health literacy is the degree to which people have the ability to obtain, process and understand basic health information needed to make appropriate health decisions [48]. According to the American Medical Association poor health literacy is "a stronger predictor of a person's health than age, income, employment status, education level and race" [49]. Further information about health literacy and its impact in the health system is presented in Addendum Three.

Health literacy is also a patient safety and clinical quality issue, particularly in regard to understanding instructions for medication and for treatment adherence [50, 51]. International evidence suggests adherence to medications prescribed for chronic diseases and long-term conditions is less than 50% at 12 months [51]. A recent

analysis of New Zealand data for dispensing of statins after an acute ischaemic heart disease event suggests there are still substantial treatment gaps in people who are at the highest risk of future adverse events in New Zealand [52]. Given that a combination of medications has the potential to reduce the risk of ischaemic heart disease by 80% [53], even a small increase in adherence is likely to have significant benefits in health outcomes. Also the medications involved are remarkably cheap, giving excellent cost effectiveness. Reviews of interventions to improve drug adherence provide useful 'start here' suggestions [54] but such interventions need to be part of an integrated approach.

End of life issues

Managing end of life issues well will become increasingly important to ensuring sustainability of the publicly funded health system in the context of increasing expectations from the general public and an ageing population with a growing prevalence of NCD. From 1996 to 2006, overall life expectancy in New Zealand increased by 3.6 years [55]. The Ministry of Health estimated that at least two thirds of the life expectancy gained was in good health. The previous efforts of prevention and treatment had translated into people living healthier and longer. However, the years lived in poor health had also increased in that decade.

The last year of life is associated with substantial health care costs [56]. In CMDHB, the age-standardised health care cost for a person with diabetes, or cardiovascular disease in the 12 month period prior to death in 2008 has been estimated to be \$21,600; for those without diabetes or CVD (but including cancer and chronic respiratory disease) the cost was approximately \$11,800 [57]. In contrast, the average annual cost for looking after a person not in their last year of life, with and without diabetes and/or cardiovascular disease was respectively \$3,054 and \$673.

The dollars spent in that last year do not necessarily translate into improved care from the patient's perspective. Higher health cost in the last week of life can be associated with more adverse outcomes, such as more physical distress, and worse overall quality of death as reported by the caregiver [58]. Weighing up the costs and benefits, monetary, health, and social, in treatment decisions in the later stages of illness will be an increasingly important part of the integrated approach across the health-risk-disease continuum in managing patients with NCDs.

5. 'Whole of Family and Whaanau' approach

The work of life course epidemiology has clearly established the importance of in utero and early childhood environments and experiences in setting the trajectory for the future physical and mental health outcomes [59]. Poor nutrition, cigarette smoking and alcohol use during pregnancy can result in long-term adverse health effects, and there are multiple links between physical and mental/social health, including evidence that exposure to abuse, violence and other adverse events in childhood is linked to increased risk of smoking, obesity and alcoholism in later life [3]. Early intervention using resilience-building, strengths-based approaches is cost effective [60].

Home environments also play an important role in establishing behavioural norms. For example young people who are exposed to smoking daily at home are seven times more likely to be daily smokers themselves compared to young people not exposed [61].

The recently released New Zealand weight management guidelines for children and young people emphasise the importance of working with families and whaanau to improve outcomes for children and young people [62]. The evidence in youth health is clear that strong relationships with family and other significant adults are key to positive outcomes [63, 64]. Efforts with families need to include grandparents and other adults that shape children's experiences and environments, such as in early childhood education and school settings. This means working with all those involved to create a better future for children.

Whaanau Ora models of care highlight the importance of working with and resourcing not only individuals within the whaanau, but also the collective capacity of the whaanau. This means 'whānau strengths are endorsed, whānau ownership of solutions and actions is encouraged, and partnerships between whānau and providers are the norm' [65].

6. Building knowledge/evidence base

Harnessing available knowledge

While there are effective interventions that need more consistent implementation, there are also significant limitations in the evidence base about 'what works', particularly about cost-effectiveness. Internationally there are several systematic reviews being planned and/or undertaken at the current time which could usefully inform the DHBs approach going forward, the results of which will become available in the next two to three years (see Addendum Four). There will also be learnings from HEHA innovation project evaluations that it will be important for the DHB to keep abreast of, alongside ensuring that maximal gain has been extracted from LBD evaluations to date. Local knowledge, both formal from surveys and evaluations, and less formal such as feedback at hui, fono and community gatherings is key to ensuring that implementation is appropriate for our communities. This knowledge needs to be fed into planning processes so that issues can be anticipated and addressed.

Different roles for consumers and community

In facilitating the input of local knowledge, it is important to differentiate consumer and community participation in health care settings so that outcomes and accountability frameworks take into consideration these differing roles. Essentially consumer/'user' perspectives are important for service improvement initiatives, for example sharing their experiences of care and how that could be improved as part of consideration of the Patient Journey. On the other hand, community/citizen input is understood to be more appropriate at the governance level, as the approach of a community representative is argued to have different interests and potentially a

different value set from that of a consumer bringing considerations of equity, value for money, accessibility and broader health needs [66-68].

Whether the input of consumers or members of the community has any real impact depends on the weight given to their views in relation to those of professionals. Processes need to be managed appropriately, with transparency about who is making what decisions in what time period, so that expectations are not raised within the community that are unable to be fulfilled.

Better use of monitoring information

The LBD review identified the need to make better use of the information gathered during implementation and highlighted the importance of reflection alongside action [1]. In addition to formal evaluations, better use can be made of monitoring data to inform decision-making. It will be difficult to justify programmes in the context of increasing fiscal constraint without a better understanding of what is being achieved. This requires considerable thought when programmes are initiated so that all those involved are clear about the objectives and measures of success, and the need for consistent reporting. Again there is ongoing international work which can help to inform indicator development (e.g. the 'Measures' project in the US, see [26]). Formal evaluations are probably less required now. Rather we should increase internal capability and capacity. Improving indicator development and monitoring will need improved capacity in both the DHB and its partner organisations.

Recommendations: Refining the LBD approach

This brief review of evidence and best practice recommendations suggests that many of the foundational principles of the Lets Beat Diabetes plan continue to be relevant and appropriate. In particular the broad ranging partnerships and systems approach to achieve structural changes is key.

While a continued emphasis on prevention is necessary and important for long-term sustainable outcomes, more attention to the quality and integration of clinical interventions is also necessary. This aligns with the current priorities and targets of the Ministry of Health and the current 'Better, Sooner, More Convenient' developments in primary health care.

Both medical evidence and community feedback support widening of the LBD focus to include the 'package' of related noncommunicable diseases and contributing risk factors. The challenge will be to not lose the traction gained by LBD so far in doing so, along with identifying priorities so as not to 'spread the effort too thinly'. The LBD review identified that the breadth and scale of the LBD commitments were demanding [1]. It is likely this pressure will only increase as the scope of the plan widens; this underscores the importance of engaging with partners regarding the prioritisation process so that all who 'sit at the table' are party to the decisions made.

Six areas where we can make the largest impact in CMDHB are

1. Maaori smoking
2. Pacific nutrition
3. South Asian nutrition and physical activity
4. Cardiovascular risk screening and management
5. Medication adherence/self management
6. Infant mental health.

While the evidence based is limited in some areas, there is a need to implement what we know works, work in partnerships to implement it well and learn as much as we can from the process. This aligns well with the emphasis of CMDHB Quality Strategy on quality improvement processes and requires attention across the four domains of the New Zealand health and disability quality framework – access and equity, safety, effectiveness and efficiency [69].

Alongside this, there is a need to try new approaches and evaluate them appropriately to continue to build a broader evidence base, particularly for approaches that address the needs of our Maaori, Pacific and South Asian communities who carry a disproportionate share of the burden of ill health.

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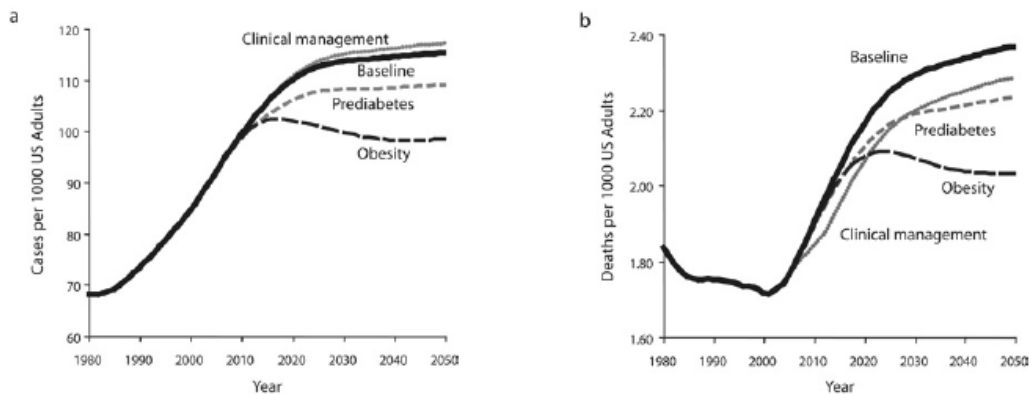
Addendum One: Insights from system dynamics modelling

The system dynamic model developed by Centers for Disease Control and Prevention (CDC) in the US illustrated the potential benefits from a population or a high risk approach in managing diabetes [8]. Improvement in clinical management of people with existing diabetes would reduce the number of deaths related to diabetes complications in the short and medium term but it would increase diabetes prevalence further from baseline projections because of improved survival.

Improving management with people with pre-diabetes, will reduce the rate of increase in diabetes prevalence and deaths related to diabetes. Finally, a population approach to reduce obesity prevalence from 37% in 2006 to 26% in 2017, would substantially reduce diabetes prevalence and deaths in the longer term horizon. Local system dynamic model for diabetes in CMDHB indicated that that the majority of people with diabetes in 2027 do not have diabetes in 2008. Therefore, taking an effective population based preventive approach is likely to have significant down-stream benefit in terms of both morbidity and mortality in the future. However, the number of deaths related to diabetes would increase with time, if no population based primary prevention is carried out.

The findings from CMDHB system dynamic diabetes model is consistent with the one published by CDC as shown in Figure 1 below [8].

Figure 1. CDC system dynamic model illustrating the potential benefits of improved management of diabetes, pre-diabetes, and reducing obesity prevalence. Graph A: diabetes prevalence. Graph B: deaths related to diabetes complications[8].



Addendum Two: Overlaps between the risk factors and conditions in the ‘package’ of NCDs

The incidence of diabetes can be reduced by 37% (relative risk reduction) with exercise and diet [70], and as well as being an important aspect of the prevention and management of obesity [24], exercise is also associated with improved cardiovascular disease risk factors (diastolic blood pressure, triglyceride levels and fasting glucose) and diabetes control [71] even if no weight is lost [72].

The risk of CVD is at least twice for those with diabetes compared with the risk for people without diabetes [6] and most people with diabetes actually die from premature cardiovascular disease related to metabolic abnormalities that are linked to their diabetes, rather than directly from complications of diabetes itself. Those same metabolic issues can lead to the development of gout, hypertension and CVD [73].

Both nutrition and physical activity are important in the development and progression of cancer [13]. There are also links between smoking and hazardous alcohol use [74]. Broader determinants of health may also be shared; for example socioeconomic deprivation is correlated with obesity, smoking and hazardous drinking [75].

Addendum Three: Health literacy

Definition

Health literacy is the degree to which individuals have the ability to obtain, process and understand basic health information and services needed to make appropriate health decisions [48]; it is ‘the ability to make sound health decisions in the context of everyday life – at home, in the community, at the workplace, the healthcare system, the market place and the political arena’ [76].

Health literacy has been described as ‘a critical empowerment strategy to increase people’s control over their health, their ability to seek out information and their ability to take responsibility’ [76].

Poor health literacy is associated with a number of adverse impacts on the both the person themselves and the health system, including likelihood of:

- increased use of emergency services
- increased hospitalisation
- more missed appointments
- decreased ability to take medicines as prescribed
- less use of preventive services
- higher health costs [77].

Poor health literacy is common. An Australian study found that 45% of a South Australian population had or were at risk of limited health literacy [78]. People with poor health literacy may make great efforts to cover it up because of embarrassment and shame so it is important not to make assumptions about someone’s literacy ability.

Addendum Four: International reviews in progress

The NICE group in the UK are undertaking reviews in the following related areas:

- Obesity: Preventing obesity: a whole system approach, & Weight management for overweight and obese children and young people: community interventions
- Smokefree: School-based interventions to prevent smoking
- Type 2 Diabetes: Preventing pre-diabetes among adults in high risk groups, & preventing the progression from pre-diabetes.
- Alcohol: Alcohol use disorders in adults and young people, prevention and early identification; Clinical management; & Management of alcohol dependence.

Addendum Five: Abbreviations

CCM	Chronic Care Management
CHD	Coronary heart disease
CVD	Cardiovascular disease
DHB	District health Board
GP	General practitioner
LBD	Let's Beat Diabetes
NCD	Noncommunicable disease
NICE	National Institute of Clinical Excellence
NRT	Nicotine replacement therapy

Appendix Two: Linkages with LBD Action Areas

1. **Enhancing community leadership, capacity and action**
Action Area 1 Enhancing Community Leadership, Capacity and Action
Action Area 7 Ensuring children are active healthy and ready to learn
2. **Developing personal, family and whaanau capacity and leadership for active engagement in being healthy**
Action Area 2 Promoting Behaviour Change through Social Marketing
Action Area 7 Ensuring children are active healthy and ready to learn
Action Area 6 Enhancing well child services to reduce childhood obesity
3. **Working with intersectoral partners to create environments that support healthy living**
Action Area 3 Changing urban design to support healthy, active lifestyles
Action Area 5 Strengthening health promotion co-ordination and activity
Action Area 4 Supporting a healthy environment through a Food Industry Accord
Action area LBD Action Area 7 Ensuring children are active healthy and ready to learn
Action Area 9 Enabling vulnerable families to make healthy choices
4. **Improving the quality of clinical interventions for common diseases**
Action Area 8 Supporting primary care based prevention and early intervention
Action Area 10 Improving service integration and care for advanced disease
5. **Facilitating health and social care integrated around the needs of those affected by diabetes, cardiovascular disease, chronic respiratory disease and cancers and their families and whaanau**
Action Area 8 Supporting primary care based prevention and early intervention
Action Area 10 Improving service integration and care for advanced disease
Action Area 6 Enhancing well child services to reduce childhood obesity
6. **Advancing the knowledge base for action**
Action Area 5 Strengthening health promotion co-ordination and activity
Action Area 8 Supporting primary care based prevention and early intervention