A primary health care led response to diabetes service delivery

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ABSTRACT

The development of Primary Health Organisations (PHOs) and the broader New Zealand Primary Health Care Strategy[1] have created opportunities to address chronic care within New Zealand in innovative ways.

Two PHOs in Wanganui have developed a primary health care led service delivery plan in an attempt to achieve improved diabetes health outcomes. This plan places a greater emphasis on equity of access, services based within local communities, and a particular emphasis on targeting high risk, high needs patients, particularly Maori and Pacific Island people. It also introduces the concept of primary fund holding for diabetes and focuses on increased collaboration between a range of providers, consumers groups and communities.

This paper describes the particular diabetes service approach being implemented and comments on the evaluation processes, impacts of the changes and initial results after one year.

Keywords

Primary health care, diabetes services.

Background

People with chronic conditions such as diabetes and heart disease are health care's largest cost and fastest growing service group both within New Zealand and internationally.[2]

'Managing these conditions is the main cause of hospitalisations in New Zealand, and they are the leading cause of disparity in life expectancy between Maori, and non-Maori non-Pacific people.'[3]

Until recently most financial, regulatory and policy frameworks failed to account for the multidimensional, interdependent, ongoing, disabling and interpersonal aspects of chronic care.[2] However over the past five years a range of frameworks, guidelines, models and strategies have been developed to guide effective chronic care within New Zealand.

These models require some reorientation of the health system with a particular emphasis on working across the health continuum from broad population-based public health interventions to organised management of chronic conditions within health care services. There is increased focus on community participation, integration of health care providers, and intersectoral activity.

In 2004 the Whanganui District Health Board (WDHB) sought proposals from currently contracted health providers to undertake the provision of the Whanganui Regional Diabetes Service. The successful tender was a joint proposal from the two PHOs in Whanganui; Whanganui Regional PHO (WRPHO) and Taumata Hauora Trust PHO (THTPHO). The proposal placed a greater emphasis on equity of access, services based within local communities, and a particular emphasis on targeting high risk, high needs patients, particularly Maori and Pacific Island people. It also introduced the concept of primary fund holding for diabetes and focused on collaboration between a range of providers, consumers groups and communities. The overall aim was

Figure 1. Diabetes plan

	Action this year	5 year outcomes	20 year outcomes
Lifestyle/environment	■ Build sustainability of HEHA ■ Intersectoral plan for reducing obesity – schools, food industry, local government ■ Increase health promotion schools action	■ Effective parenting/family outcomes ■ Intersectoral collaboration as a norm ■ Improved physical activity/diet ■ Agencies taking responsibility for health	■ Sectors working together effectively on lifestyles and environments ■ Physical activity at all ages ■ Reduced obesity
Families & communities	■ Stocktake of community activity ■ DHB and primary care build links with MSD, schools, local government for leadership and planning	■ Building stronger communities ■ Healthy food at kohanga/early childhood education and schools	■ Whanau ora ■ All sectors working together for improved health outcomes ■ Disparities in health eliminated
Health system	■ DHB road map for chronic care: – measures to allow us to evaluate – IT systems to monitor – Rapid response & dissemination to innovation	■ Early screening ■ Improved management ■ Identify children at risk – early intervention ■ PHO/DHB collaboration	■ Best practice implemented ■ Affordable, sustainable health system ■ Rapid change management

to reduce diabetes risk, enhance diabetes management, develop community-wide collaboration and relationships to change health systems, lifestyle and environmental factors that impact on health outcomes.

Diabetes service plan

Planning for service changes occurred over a twelve-month period. A planning day, and in particular the help from an external facilitator, provided the much needed space for reflection on our approach and from this we were able to produce a strategic framework for improving diabetes outcomes. Figure 1 outlines the intended outcomes, both short and long-term.

The plan has alignment with the World Health Organization expanded Wagner model, Innovative Care for Chronic Conditions (ICCC),[4] which emphasises health service redesign, workforce planning and development, knowledge management and service partnerships and with the 'Leading for Outcomes Framework'.[5] Emphasised here is a shift to a population-based prevention focus, with its key elements of continuing rather than episodic care and stronger community engagement.

Health systems

WRPHO had built up contract, clinical and administration capacity since its establishment in July 2003 and proposed contract holding and administration functions for the majority of the diabetes funding for the WDHB region. The intention was to shift the emphasis and ownership for diabetes outcomes towards primary care. The Maori PHO (Taumata Hauora Trust) was to provide a monitoring and evaluation role while participating at a provider level in a range of diabetes initiatives. The monitoring role was principally to ensure health outcomes for Maori were achieved through the different service configuration.

Broadening the scope of general practice to include an extended team approach was key to the plan. Support for the broader social issues that affect individuals and their families, such as the need for social support, stress reduction, adequate housing and support for accessing financial assistance such as disability allowances is provided by the WRPHO Mental Health Team made up of counsellors and social workers. A Kaupapa Maori counsellor/

Figure 1 cont.

	Action this year	Uptake (2–5 years)	Intermediate outcomes (5 years)	Long-term (20 years)
Reducing diabetes risk	■ Increase uptake of health checks ■ Agreed practice policy ■ Alignment with HEHA	■ Increase Green Prescriptions ■ Decrease smoking ■ Increase systematic targeted screening ■ Increase pre-diabetes education ■ Increase use of GPs for health review by Maori and Pacific people	■ Decrease obesity in identified at-risk population ■ Increase time from pre-diabetes to diabetes ■ Increase Maori/Pacific checks	■ Decrease in expected levels of diabetes
Enhancing diabetes management	■ Involvement of diabetes educators and pharmacists in practice management ■ Implement: – practice education – standardise referrer process – nurse skills – practice liaison support ■ Practice audit	■ Increase correct prescribing ■ Increase appropriate self-management education ■ Integrated pharmaceutical review ■ Integrated education review ■ Increase retinopathy ■ Increase foot exams ■ Increase defined loss ■ ADC	■ Decrease BP ■ Decrease CV risk for practice population ■ Increase adherence to medication ■ Decrease complications ■ Decrease amputations ■ Decrease ulcers	■ Decrease complications ■ Older onset of CVD ■ Increase longevity ■ Decrease inequality ■ Increase longevity over 65

social worker is also employed to address these needs from a cultural perspective.

The development of strategies to improve systems and processes associated with data collection and measurement of health outcomes was to be critical in monitoring the impact that health interventions were having for the population and was to form the baseline for measuring success and identifying opportunities for improvement.

Families and communities

Community involvement in planning diabetes services at a primary care level was ensured in the revised governance structure. The most significant change was a split in strategic and operational governance. The change in structure has enabled a finer focus, without either perspective dominating or losing voice.

The Diabetes Governance group is responsible for the strategic development of diabetes services as well as ensuring diabetes health outcomes are met to the satisfaction of all interested parties. The group consists of DHB Planning and Funding, Public Health, Secondary Service Managers, Maori and Pacific, rural and Diabetes Society representatives, PHO partners, and consumers.

On the other hand, the 'operational governance' or Diabetes Clinical Forum Group, which includes the secondary medical specialist, GPs, podiatrist, dietician, pharmacist, diabetes and other nurses, is concerned with recommendations for diabetes care throughout all sectors, including the measurement and management of 'pre-diabetes', and the implementation of the NZGG recommendations.[6]

Lifestyle and environment

There is a strengthened role for public health and health promotion for the PHO generally and in particular within the diabetes plan. Public health has a presence at a governance and operational level (with the Healthy Eating Healthy Action (HEHA), *'Grab a Bite that's Right'* project). Health promotion activity has been enhanced at the PHO level with the appointment of a health promoter who aims to work with communities, general practice and whanau to develop knowledge and programmes in response to identified needs, ultimately enabling the development of sustainable communities.

Table 1.

Strategic Framework Category	Item	Evaluation method	Short or medium term	Evidence of achievement
Reducing Diabetes Risk	Agreed practice policy	Process Impact	Short	Policies in place and process reviewed by all key stakeholders. Results disseminated and followed-up
	Increase in systematic targeted screening	Impact	Medium	Screening data collected as baseline in 2007 – then compared annually for improvements in targeted populations
Diabetes Management	Increase in uptake of ADC for targeted populations	Impact	Medium	Data will be reviewed annually. Practice audit conducted in line with SLA
Lifestyle and Environment	Intersectoral plan for reducing obesity	Process Impact	Short	Plan in place and agreed by all parties – funding options reviewed and implementation activities identified. Process reviewed by all key stakeholders
Family and Community	Stock take of community activity	Impact	Short	Gaps in services or activities identified and plan in place to meet ongoing community needs
	Agencies taking responsibility for health	Impact	Medium	Activity reviewed across sectors. Programmes implemented from a range of sectors other than health
Health Systems	DHB Road map	Impact	Short	Long-term vision and short-term action plan in place and agreed by all parties – funding options reviewed and implementation activities identified

Reducing diabetes risk

The WRPHO has funded a lifestyle and disease risk screening programme that provides additional opportunities for 'healthy adults' from the target population groups, to be screened in general practice. This 'Health Check in Practice' nurse-led programme was piloted in the Wanganui region in 2004 and was shown to be a feasible method of providing screening.[7] It also generated increased referrals to the Green Prescription programme and allowed for practice-based smoking cessation consultations as part of the funded follow up intervention visits.

Education and nutrition workshops are provided for Pacific people and their families in partnership with WRPHO, Pacific Communities and Sport Wanganui. They have provided an opportunity for workforce development for two Pacific women who attended Pacific Island Nutrition Training run by the Heart Foundation. All enrolled in the workshops have pre- and post-cardiovascular disease risk assessment and follow-up Green Prescription referral.

Enhancing diabetes management

The development of key nursing and allied health positions has strengthened case management for both those with diabetes and their families/whanau. This 'team' includes the Pharmacy facilitator, Pasifika nurse, Care Plus and High Needs nurses, supported by a Kaiawhina or community liaison person, who utilises local knowledge and experience to access those specific groups of people who are 'high risk, high needs' and hard to reach. In addition, input from the Did Not Attend (DNA) Project Coordinator provides a wider perspective on the accessibility of services to those patients requiring care, ensuring more effective use of professionals' time and ultimately decreasing the rate of DNAs for diabetes podiatry, diabetes education and secondary service appointments.

The plan also sought to strengthen the role of primary and secondary prevention. Key to this vision was the relocation of the 'Diabetes Nurse Educator' (DNE) and the podiatry services from secondary to primary care. This change of focus for the DNE role has led to increased opportunities for access and education in the primary care setting, not only for people with diabetes but also for the practice nurses, general practitioners and the wider primary health care team. Workforce development, in particular implementing a succession plan for specialist staff, has been a key part of the approach.

Consideration for implementing an 'expert patient' service model is currently underway. The diabetes

nurse educator will, alongside other health professionals, be pivotal in implementing 'patient education self management' and 'train the trainers' programmes so that educators and whanau within local communities have a level of knowledge that supports the effective implementation of primary based treatment plans.

The contractual expectation for podiatry services was to improve access for Maori and Pacific Island patients, therefore it was considered that the future direction of the service should be primary focused. Foot care assessment and treatment addressing the complications associated with diabetes is a core service in the continuum of care, and the recent development of accessible (marae based) education for clinicians, patients, providers and community lay people has led to increased awareness of managing this potential health risk before advancement of the disease process occurs.

The WRPHO Practice Liaison person provides the vital link between all the groups discussed previously and primary care practices through dissemination of resources and information. In addition the centrally based WRPHO administrators coordinate the service, arrange clinic appointments, collate and provide data feedback to GPs, WDHB and the Ministry of Health.

Evaluation

For the purposes of this diabetes plan we have decided to use the following approaches in our evaluation. Only one aspect from each of the strategic framework categories, described in Figure 1, will be focussed on. Areas where there is existing data and where there are evaluation templates or audit templates will be prioritised for evaluation. In addition, priority areas for improvement will be targeted for evaluation, e.g. reducing inequalities and a focus on population health and prevention. Both process and outcome evaluation methods, taking a short to medium term view of activities and results will be utilised. The following is a primary care approach to evaluating progress on achieving diabetes health outcomes.

Evaluation to date has centred on the immediate outcomes of realigning the diabetes services and administration processes in terms of documenting the development of these changes, gathering data such as DNA rates at clinics, and promoting the plan. We will comment on particular issues arising in year one using the key headings addressed in the plan.

Health systems

With the development of 'Advanced Forms', for electronic transfer of the Annual Diabetes Check (ADC) data, the processes and time commitment will be streamlined, however outstanding data issues remain. To date the level of data required is not readily available and therefore an over all picture of the health status of patients with diabetes within the WDHB region is yet to be formed. Negotiations and discussions with key stakeholders is ongoing to assist in extracting accurate data that reflects the new contract requirements.

Families and communities

The plan recommends a stock take of community services and a leadership role for the DHB in leading a positive policy environment for diabetes. This raises the question of who provides leadership for improving diabetes health outcomes in this primary led approach and how broad can or should a primary care approach be; is it a PHO responsibility to lead community action and intersectoral activity; this is a question the PHOs are still coming to terms with.

The governance group meetings are well attended and collaborative but it is too soon to fully appreciate the overall outcomes from changes, in particular what the benefits may be of separating strategic and clinical governance. Agreement on practice policies (an evaluation outcome) between both governance groups will go some way to measuring the impact community participation will have on policies. Participation by Maori as partners in the diabetes project has been both challenging and productive. There are closer relationships at a provider level between 'by Maori for Maori' services and WRPHO. However, while there are Maori sitting as governance members on the WRPHO Board and the diabetes governance group, the ongoing parameters and principles of Maori participation and partnership are still being developed at a governance and strategic operational level.

Enhancing diabetes management

A preliminary comparison of ADC data before and after the commencement of the WRPHO contract holding shows an overall increase in ADC's performed and, in particular, an improvement in the number of Maori patients accessing ADCs. There is still a disparity in glycaemic control for Maori accessing free annual checks when compared with non-Maori, however the glycaemic control for both groups has improved during the 2006 period. Importantly it has improved more for Maori from almost 38% of those checked in 2005 having in excess of 8 for HBA1c levels to 30% in 2006.[8]

In addition, a recently conducted customer survey showed an overwhelmingly positive response to questions about clinic location, convenience, appointment process, and access to information and advice.

Future developments

The success of this revised diabetes model of service delivery is in retaining and building on the expertise and knowledge that exists with current clinicians and health workers delivering the services. It is the intention that 'fine tuning' of the resource to demonstrate a greater primary focus will assist in delivering

improved performance outcomes. Primary care, particularly the general practice environment, requires a 'champion' to support patients and the general practice team to develop policies and processes that will improve diabetes screening and assessment outcomes. In addition, linking in with new initiatives and developments that are occurring in primary care such as nurse led clinics; high needs nurse coordination; rural youth clinics and care plus, will achieve a more collaborated approach and health gain for those patients with diabetes. Critical to achieving gains in Maori health inequalities is the strengthening of the role of Maori health providers in the primary care sector and in particular their role in supporting mainstream responsiveness to improve Maori health outcomes.

Competing interests

Janice Handley is currently and has been employed by the Whanganui Regional Primary Health Organisation since 2004, as the Project Coordinator, which has included development and delivery of the Diabetes Services in the Wanganui region. She has been supported by the WRPHO to attend the NZ Diabetes Association conferences in 2005 and 2006. The WRPHO also provides administration and study leave support for her Masters Research Thesis.

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