Thinking beyond Care Plus:

The work of primary health care nurses in chronic conditions programmes

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Key words

Primary health care nursing; chronic conditions

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'There is evidence that general practitioners and nurses working together in primary care can improve people's self efficacy and their health. There is good evidence that nurses who specialise in a particular long-term condition, either in hospital or in the community, can help to improve the health of people with long-term conditions and their use of health services.'[1]

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Background

Worldwide, nurses working in primary health care are being urged to take increased roles in caring for those with chronic conditions; often within a chronic care management (CCM) framework. The effectiveness of nurses' work either as generalists in an interdisciplinary team or as specialists working independently or autonomously within a team[2,3] is supported by international research[4,5] and successful implementation has been demonstrated in CCM models of care in a number of countries.[6,7]

Prior to Care Plus funding being available in New Zealand (NZ) in 2004, there was a limited focus on organised forms of chronic condition care in primary care, particularly care that focused on those with multiple or complex chronic conditions. Counties Manukau District Health Board (CMDHB) had instituted a formal CCM model in 2001 targeting care to those unable to self-manage,[8] funding general practice team care to each eligible patient up to six hours a year with a greater proportion used on PHC nurse input. Few general practices had structured, coordinated chronic conditions programmes,[9] although some had disease-specific nurse-led clinics.[10,11]

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The Care Plus funding stream raised some awareness of chronic conditions but the need for a broader evidence-based approach has been belatedly recognised in 2007 with the release of the National Health Committee (NHC) report *Meeting the needs of people with chronic conditions*.[12]

This paper will focus on the wider work of PHC nurses in all chronic conditions programmes, both formal CCM and informal programmes.

An overview of the key components of chronic care management

CCM models of care typically include a number of key components (*community resources, health system organisation, self management, delivery system design, decision support clinical information systems, cultural competency*) which, if utilised together in primary care settings,[13] result in a *prepared, proactive practice team* and *an informed activated patient* (and family).[14] Structured patient care using a CCM model results in improved patient outcomes,[15] although outcomes of care are difficult to measure because chronic conditions cannot be cured and the best outcome may be maintaining or slowing health decline. Figure 1 depicts the 'Wagner' Chronic Care Model; in NZ this has been adapted by CMDHB to include cultural competency and an increased emphasis on the patient (also including their family and community).[8]

In NZ, primary health care (PHC) nurses working in chronic condition care are located in many settings and may be employed in general practice settings, District Health Boards (DHB), Primary Health Organisations (PHO), community trusts or non-governmental organisations. Nurses may be generalists, CCM or disease specific specialists or nurse practitioners. Generalist nurses are based mainly in individual general practices. PHO or DHB nurses can work across PHO settings with many practices and patients, most often as specialist nurses, and also between primary and secondary care (integrated care) and nurse practitioners can be employed as either specialists or generalists.[17]

Effective chronic conditions care is dependant on purposeful, coordinated and longitudinal teamwork.[18,19] To do justice to the needs of patients with chronic conditions, a range of PHC professionals should be involved such as nurses, GPs, pharmacists, dieticians and social workers.[1] No one discipline can address the multiplicity of skills required[20] and nursing work complements and supports the work of GPs and other PHC professionals and conversely so.

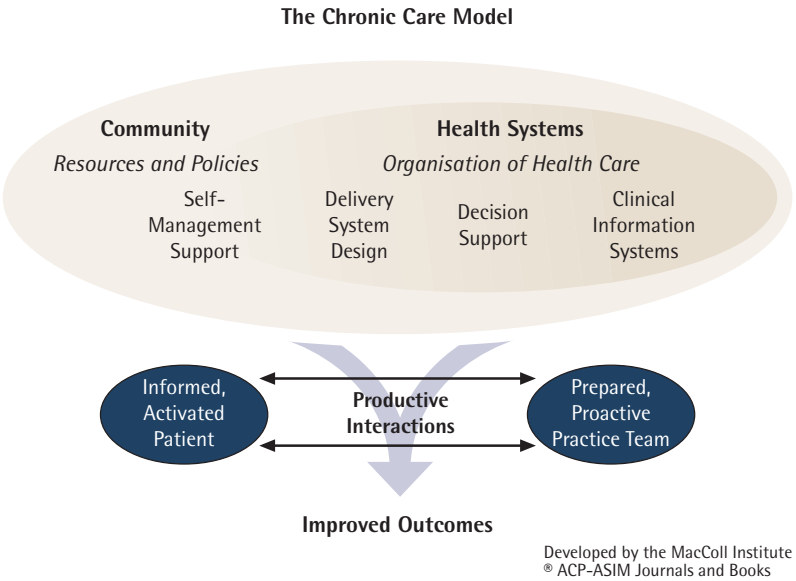
Central to the notion of the prepared proactive team is trust and respect between PHC disciplines;[21,22] this is explained further in Pullon's paper on page 318, *Teamwork: a fundamental principle of primary health care and an essential prerequisite for effective management of chronic conditions*. Teamwork facilitates best use of disciplinary skill sets particularly around the role margins where the different disciplinary competencies are similar and meets the imperative to use the scarce human health professional resource wisely.[23,24]

PHC nursing values are also the core primary care values of first-contact coordinated care, with continuity and longitudinal relationships.[25,26] Nurses bring to chronic conditions programmes their ability to cast a wide assessment of the overall context of patient and family as well as the illness in question,[27] considering the patient's ability to adjust to illness as well as health[28] and then committing to work with patient and family over time to support health. Nursing work includes the ability to broadly and specifically assess health and illness status, to formulate and undertake clinical activities in consultation with patient and family addressing the *'risks and consequences of illness and the risks and consequences of treatment'*,[29] to skilfully engage in therapeutic communication with patient and family, support patient self-management to develop strategies to live well,[30-34] inform treatment plans of other disciplines, undertake population health as well as sociopolitical activities[35] and share wide ranging knowledge of the health sector, particularly roles and activities of health disciplines.[36]

Key to a chronic conditions approach is ensuring the most appropriate level of health and social human resource is made available to those with different levels of complexity. The Kaiser Permanente Triangle model in Figure 2 is commonly used to explain the differences in levels of care.

PHC nurses work with varying levels of need. In population-wide prevention they work in school-based public health initiatives. They can support, educate and coach patients with newly diagnosed conditions, motivate patients to change lifestyle behaviours and encourage them to attend self-management[33] programmes* such as those provided by organisations such as Arthritis NZ[37] or Healthmatters.[38] They can also work intensively with individuals (or groups of patients) who may have several chronic conditions or added socioeconomic complexity though Care Plus or nurse-led clinics; increasingly using Flinders self-management support[34] or brief intervention cognitive behavioural therapy skills. They can also care through case management models for those with highly complex needs, mainly through secondary care community services.

Figure 1. The Chronic Care Model[16]



Care Plus

Care Plus on its own does not constitute a CCM approach. It is merely a funding stream accessed via PHOs that gives general practice teams an opportunity to develop an organised approach for specified patients with chronic conditions (or to incorporate funds within an existing CCM programme). The entry criteria for Care Plus limits care to certain (high health

* Evidence-based Stanford University licensed programmes developed by Kate Lorig.

need) populations and funds increased nurse and GP consultation time with an expectation that patients will receive a comprehensive assessment, goal setting, appropriate medication, wellness planning, lifestyle coaching and anticipatory proactive care and support. Care Plus funding is available regardless of whether or not CCM components mentioned are in place. Other initiatives involving PHC nurses are therefore needed to widen the scope to offer preventative, health promotion and single chronic condition care.

An evaluation of Care Plus in 2006 showed that there was variability in the implementation of Care Plus with not all PHOs involved and those that were providing varying levels of professional development, resources and support. General practices with enthusiastic staff, spare capacity, good information technology (IT) systems, who supported autonomous nursing practice or had experience with chronic programmes were more likely to quickly adopt Care Plus. At the time of the evaluation in early 2006, Care Plus consultations were equally delivered by either PHC nurses or GPs, but rarely by both. Patients reported they valued nursing input and appreciated the time and interest taken in their general circumstances and the coaching they received about which issues to discuss with the GP. Nursing input resulted in *'increased affiliation with the practice and practitioners'*; with nurse-patient interactions (interestingly) enhancing the GP-patient relationship.[39]

Examples of new PHC nursing practice in relation to chronic conditions care

There is an increasing move within general practice to establish nurse-led clinics and other programmes to supplement current chronic conditions programmes (See Table 1).

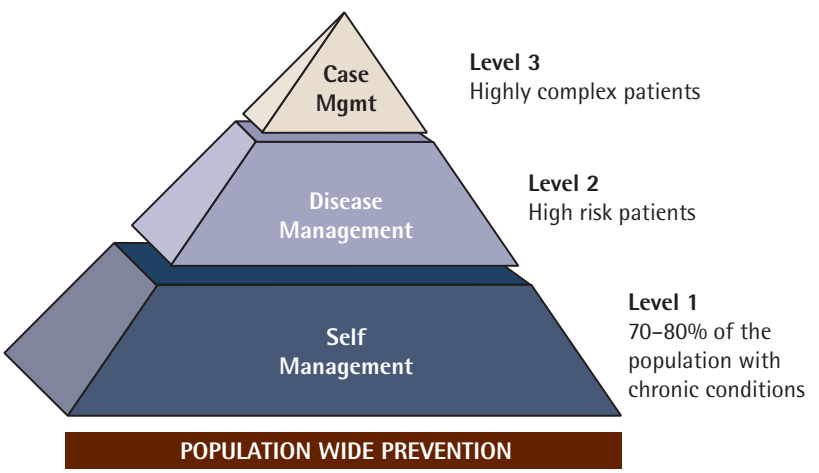
The highlights

The PHC nurses who contributed to this paper say there have been many rewards in working in chronic conditions care. Taking on the challenge, gaining required education/training and developing/progressing nursing services generally within a team approach have led to increased job satisfaction as well as resulting in positive patient outcomes with positive patient feedback. One nurse said her involvement *'has made me a feel as though I am an integral part of the general practice team, providing a service that definitely makes a difference'* (PHC nurse, Wellington).

Opportunities for improvement

However the PHC nurses who contributed also recognised there are opportunities to improve existing structures and processes supporting chronic conditions care. Many of these suggested opportunities align with the 2007 NHC report recommendations.[12]

Figure 2. Focusing the provision of care where it is needed



Communication and culture

A dedicated team approach is required with a commitment to prioritise chronic conditions programmes as an integrated facet of PHC delivery. An enthusiastic, respected team leader knowledgeable in chronic condition management is important to facilitate delivery. Nursing leadership is also needed to establish nurse-led projects, particularly to review funding streams. Regular, planned team meetings are needed with all stakeholders, including health professionals and consumers, throughout implementation and evaluation of programmes.

Annual strategic planning at PHO and practice level should incorporate a focus on chronic conditions with clear goals, objectives and roles. Lack of planning creates an environment whereby team members are not well prepared for change. Lack of involvement in the planning and evaluation phase can result in resistance from both nurses and GPs to fully participate in chronic conditions programmes.

Organisation and support

Providers and a wide range of disciplines should be involved in a coordinated manner and be patient rather than contract-focused.

The current funding streams (except for CVR) act as disincentives to preventative screening of chronic conditions or early detection of deterioration and intervention.

PHC nurses who have been working with patients through Care Plus or other chronic conditions programmes should be able to have input into W&I disability/invalids allowance application (and update) processes.

IT support is needed for establishing and the ongoing management of disease registers also supporting data retrieval and analysis.

Administrative support can facilitate appointments and recall process, freeing up nursing time to undertake direct patient care.

Structured templates can enable the accurate documentation of all nursing activity in relation to chronic conditions care.

Table 1. PHC nursing practice in relation to chronic conditions care

Organisation	Nurse involvement
Mornington PHO, Dunedin (personal communication, June 2007, Sally O'Connor)	Specific nurse-led clinics for: Diabetes • Annual Diabetic Reviews • Education for newly diagnosed type two diabetics • Intensive intervention those with Hba1c > 8 • Running a diabetes prevention programme. Cardiovascular risk (CVR) assessment screening, education and management. Respiratory conditions • Practice-based education • Developing management plans • Free spirometry for smokers & follow-up care (Otago DHB canopy study). Registered Maori and Pacific patients using a mobile approach to bring patients into services. Primary mental health care or chronic health problems impacting on mental health (through Ministry of Health pilot funding).
Aranui Community Trust, Christchurch (personal communication, June 2007, Jackie Cooper)	A neighbourhood nursing model • Maintains ongoing contact with people often with high health needs even when 'well' to reinforce health promoting messages, providing encouragement and support rather than episodic input at times of crisis or deterioration • Assists with access to primary mental health care for those with enduring mental health problems linking with GPs and/or specialist services • Supports the Work and Income (W & I)/PHO initiative, 'PATHS' addressing barriers for people with chronic conditions affecting their ability to return to meaningful employment • Case management models involvement with non-health services as means to address determinants of health impacting on physical, mental or social wellbeing – Housing NZ (Complex Care & Suitable Housing Coordinators) – W & I (Complex care coordinator) – Strengthening Families (Ministry of Social Development).
West Coast PHO (personal communication July 2007, Fiona Doolan-Noble)	A CCM approach based on the expanded chronic care model[40] integrating population health promotion with the continuum of care. • Well population (through a men's health forum) • At risk population (screening for CVR) and • The population with established disease (structured programmes of care for those with established disease through general practice).
Capital and Coast DHB region (personal communication, June 2007, Helen Dryden **Kapiti PHO**, Melissa Simpson **Capital PHO**)	An increasing number of PHC nurses are increasingly involved in managing care, education, care planning and reviews of patients with diabetes, chronic obstructive pulmonary disease, and asthma. • CVR screening and education • Lipid management advice after blood test • Smoking cessation & Nicotine Replacement Therapy • Obesity screening and support • Blood pressure checks.
(personal communication, June 2007, Berni Marra, Helen Rodenburg, **Capital PHO**)	• PHO employed nurses also work in outreach positions often with 'twilighter' patients with chronic illness in their homes.[41] These people are marginally linked with general practice and have social and life complexity requiring long-term, persistent and sustained nursing relationship. Nurses act to address patient perceived immediate needs and in doing so forge relationships, which then allow them to broker other health and social services and eventually address long-term (chronic condition) needs. This is challenging and poorly recognised work with nurses giving care in sometimes environmentally and socially high-risk home environments with often little opportunity to demonstrate the extent or effectiveness of the work through traditional performance indicators.

Table 1 cont.

Organisation	Nurse involvement
MidCentral DHB (personal communication July 2007, Linda Dubbledam)	Mobile PHO employed community-based nurses providing PHO-wide services linking with specialist nurses in secondary services. The nurses collaborate closely with general practice providing largely home-based, long-term management across a number of disease states with an emphasis on self-management and work particularly with those who don't access general practice or access rarely. • Diabetes community nurses hold clinics in general practices for the practice enrolled population as well as holding clinics in other settings for people residing anywhere (not necessarily enrolled) in the MidCentral region. • Recruitment is underway for cardiac care nurses who will provide similar care for those with heart failure, ischaemic heart disease and undertake cardiac rehabilitation. Nurses will mainly home visit but also undertake group work and over time participate in multidisciplinary clinics with the community cardiologist and others. • Recruitment of community respiratory nurses is planned to undertake respiratory care and provide and coordinate pulmonary rehabilitation.
Counties Manukau DHB (personal communication, July 2007, Andy McLachlan)	A CCM programme underpinned by interdisciplinary integrated teamwork with recognition given to the pivotal work of PHC and specialist CCM nurses. This has resulted in extended roles and additional skills for generalist and specialist PHC nurses leading to greater flexibility and autonomy within a teamwork model.[42] Rea et al (2007) suggests a future where nurses and other primary health care professionals will continue to increase their roles and *'in some instances, will replace doctors roles, but will largely be additional, complementary to, and supportive of doctors' roles.'*[43]

General practice re-organisation can facilitate appointment times and slots appropriate to chronic conditions programmes with uninterrupted time to work with patients.

Evaluation

Evaluation is required at many levels including process and output, as well as performance indictors able to measure chronic condition care, organisation, teamwork and different disciplinary input.

Resources

Staff need access to a range of comprehensive, evidence-based patient information at various literacy levels to support patient information needs.

Staff need time to network with and gain knowledge of health and social resources in the community.

Education

Knowledge and confidence to work in new or expanded roles is supported by provision of postgraduate education or training relating to chronic conditions management. Barriers preventing PHC nurses and GPs from attending include lack of funding, time, course availability, and workforce issues. Ideally PHC nurses and GPs should attend together as this reinforces interdisciplinary team practice. Some general practices budget for this to promote team building and reinforce a team commitment to best practice chronic condition management.

Staffing

Appropriate staffing levels are needed to support effective chronic conditions programmes. Capitation, Care Plus and other programme funding can enable employment of both generalist and specialist PHC nurses. General practices have found increasing numbers of skilled PHC nurses relative to GPs improves the quality of chronic conditions programmes.[9]

Physical environment

Physical space is required to give quality chronic conditions care. This is a particular barrier for nurses undertaking chronic conditions (and Care Plus) consultations. With growing practice registers, careful planning and justification of room usage is required. Co-location of a variety of primary health care disciplines can facilitate interdisciplinary chronic conditions care, however, traditional subletting of rooms to other health professionals is now creating pressure and needs to be re-evaluated in a number of practices.

Location of health services is also important. General practice settings can be a barrier for some, particularly for those with high needs. Services can also be delivered by PHC nurses in home, school or workplace settings or in health huts within supermarkets or pharmacies. Evidence-based website self-care resources are another route.

In summary, the role of PHC nurses within a framework of interdisciplinary chronic condition care is diverse and increasing, and used at the varying levels of complexity of care provision. Although formal CCM programmes and Care Plus funding have increased the opportunities for nurses to work and specialise in the area, funding streams must not dictate the span of nursing work. Nurse-led clinics can offer additional scope as can the roles and support given by PHO or DHB employed spe-

cialist nurses. Health professional and administrative staff need specific skills to administer chronic conditions programmes and these are best learnt through interdisciplinary training/education. Flexibility of approach combined with skills in chronic conditions care means that PHC nurses now have the ability to work effectively with individuals and populations offering further opportunities to reduce inequalities.

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Competing interests

None declared.

References

1. Singh D. Which staff improve care for people with long-term conditions? NHS Modernisation Agency and University of Birmingham. 2005. http://www.tccp.nhs.uk/library/tccpcoredocumentation/workforce_implications_reviewzip/view. Accessed 5 June 2007.
2. Katon W, Korff MV, Lin E, Simon G. Rethinking practitioner roles in chronic illness: the specialist, primary care physician and the practice nurse. Gen Hosp Psychiatry 2001; 23:138-44.
3. Bodenheimer T, Wagner E, Grumbach K. Improving primary care for patients with chronic illness. JAMA 2002; 288:1775-9.
4. Singh D. Transforming chronic care: a systematic review of the evidence. Evid Based Cardiovasc Med 2005; 9(91-94).
5. Shortall S, Marsteller J, Lin M, et al. The role of perceived team effectiveness in improving chronic illness care. Med Care 2004; 42:1042-8.
6. World Health Organization. Innovative care for chronic conditions: Building blocks for action. Geneva: World Health Organization; 2002.
7. University of Birmingham. Improving care for people with long-term conditions: a review of UK and international frameworks. Birmingham: University of Birmingham; 2006. www.hsmc.bham.ac.uk/news/ReviewIntFrameworks-ltc.pdf .Accessed 3/3/07.
8. Wellingham J, Tracey J, Rea H, Gribben G. The development and implementation of the Chronic Care Management Programme in Counties Manakau. NZ Med J 2003; 116. Available from: www.nzma.org.nz/journal/116-1169/327.
9. Nixon D, Smith M, Chamberlain S. Delivering improved chronic disease outcomes in primary care: An affordable, achievable and sustainable pragmatic approach to primary care – The Foundation Program. NZ Fam Physician 2006; 33(2):108-14.
10. Ministry of Health. A difference in communities: What's happening in Primary Health Organisations. Wellington: Ministry of Health; 2005.
11. Ministry of Health. Evolving models of primary health care nursing practice. Wellington: Ministry of Health; 2005.
12. National Health Committee. Meeting the needs of people with chronic conditions. Wellington: National Health Committee; 2007.
13. Schmittdiel J, Shortell S, Rundall T, Bodenheimer T, Selby J. Effect of primary health care orientation of chronic care management. Ann Fam Med 2006; 4(2):117–22.
14. Wagner E. Chronic disease management: what will it take to improve care for chronic illness? Eff Clin Pract 1998; 1(1):2-4.
15. Tsai A, Morton S, Mangione C, Keeler E. A Meta-analysis of Interventions to improve care for chronic illnesses. Am J Manag Care 2005; 11(8):479–88.
16. The Chronic Care Model. Improving chronic illness care. http://www.improvingchroniccare.org/indexphp?p=The_Chronic_Care_Model&ts=2. Accessed 30 July 2007.
17. Ministry of Health. Nurse practitioners in New Zealand case studies. http://www.moh.govt.nz/moh.nsf/indexmh/nursepractitioner-case-studies. Accessed on 30 July 2007.
18. Tracey J, Bramley D. The acceptability of chronic disease management programmes to patients, general practitioners and practice nurses. N Z Med J 2003; 116:331.
19. Rothman A E W. Chronic illness management: what is the role of primary care? Ann Intern Med 2001; 138(3)(3):257-62.
20. Davies C. Getting health professionals to work together. BMJ 2000; 320:1021-2.
21. The EICP Initiative. The principles and framework for interdisciplinary collaboration in primary health care. Ottawa: The Enhancing Interdisciplinary Collaboration in Primary Health Care (EICP) Initiative. 2005. http://wwweicp-acis/ca. Accessed 24 July 2007.
22. Pullon S. Primary trust in primary care: an exploration of interprofessional relationships between nurses and doctors in New Zealand Master in Primary Health Care. Unpublished thesis, 2006; University of Otago, Wellington.
23. Epping-Jordan J, Pruitt S, Bengoa R, Wagner E. Improving the quality of health care for chronic conditions. Qual Saf Health Care 2004; 13(4):299-305.
24. Wagner E. The role of patient care teams in chronic disease. BMJ 2000; 320:569-72.
25. McWhinney I. Primary Care: core values. BMJ 1998; 316:1807-9.
26. Starfield B. Is primary care essential? Lancet 1994; 344:1129-33.
27. Schoenhofer S. Rethinking primary care: Connections to nursing. Adv Nurs Sci 1995; 17(4):12-21.
28. Gordon S. Nursing against the odds. New York: Cornell University Press; 2006.
29. Armstrong F. Advocating nursing. Aust Nurs Rev 2005; 12(10):14-7.
30. Von Korff M, Glasgow R, Sharpe M. Organising care for chronic illness. BMJ 2002; 325:92-4.
31. Coleman M, Newton K. Supporting self-management in patients with chronic illness. Am Fam Phys 2005; 72(8):1503-10.
32. Lorig K, Sobel D, Ritter P, Laurent D, Hobbs M. Effect of a self-management program on patients with chronic disease. Am Coll Phys 2001; www.acponline.org/journals/ecp/novdec01/lorig.htm.
33. Lorig K. Self-management education: history, definition, outcomes and mechanisms. Annals Behav Med 2003; 26(1):1-7.
34. Bycroft J, Tracey J. Self-management support: A win-win solution for the 21st century. N Z Fam Physician 2006; 33(4):243-8.
35. White J. Patterns of knowing: Review critique and update. Adv Nurs Sci 1995; 17(4):73-86.
36. Frich L. Nursing interventions for patients with chronic conditions. J Adv Nurs 2003; 44(2):137-53.
37. Arthritis New Zealand. Living a health life programme. http://www.arthritis.org.nz/indexphp?section=contact. Accessed 27 July 2007.
38. Healthmatters. Maximising organisational and individual health. http://www.healthmattersnz.com/. Accessed 27 July 2007.
39. Ministry of Health. Review of the implementation of Care Plus. Wellington: Ministry of Health; 2006.
40. Barr V, Robinson S, Marin-Link B, et al. The expanded chronic care model. Hospital Quarterly 2003; 7(1):73-82.
41. Wellingham J. Engaging at risk populations in early intervention programmes. Auckland: unpublished paper; 2005.
42. Counties Manukau District Health Board. Chronic Care Management in Counties Manukau. DVD 2007.
43. Rea H, Kenealy T, Wellingham J, et al. Chronic Care Management evolves towards Integrated Care in Counties Manukau, New Zealand. N Z Med J [on-line] 2007;120(1252):Available on http://www.nzma.org.nz/journal/abstract.php?id=2489 Accessed 3 June 007.