FLINDERS UNIVERSITY

ADELAIDE • AUSTRALIA

FLINDERS HUMAN BEHAVIOUR & HEALTH RESEARCH UNIT

Submission to

Australian Government Productivity Commission

based on proposals included in

The position paper from the

Australia's Health Workforce Study

Draft prepared by Dr Sarah Blunden for
Flinders Human Behaviour and Health Research Unit

Director Dr Malcolm Battersby
Dr Rene Pols, Deputy Director
Dr Sharon Lawn, Lecturer
Dr Sarah Blunden, Research Officer
Ms Anthea Williams, Project Officer
Mr David Agnew, Executive Officer

http://som.flinders.edu.au/FUSA/CCTU/Home.html

October 2005

Acronyms

ANZAME	Australian and New Zealand Association of Medical Educators
ATSI	Aboriginal and Torres Strait Islander
C&R	Cue and Response
CALD	Culturally and linguistically diverse
CBT	Cognitive Behavioural Therapy
CC	Chronic Condition
CCSM	Chronic Condition Self-Management
CD	Chronic Disease
CDAMS	Committee of Deans of Australian Medical Schools
COAD	Chronic Obstructive Airways Disease
EPC	Enhanced Primary Care
FHBHRU	Flinders Human Behaviour & Health Research Unit
GP	General Practitioner
MBS	Medical Benefits Scheme
NCDS	National Chronic Disease Strategy
NH&MRC	National Health and Medical Research Council
NHPAC	National Health Priorities Action Council
P&G	Problems and Goals
PHC	Primary Health Care
PIH	Partners in Health
QoL	Quality of Life
RCT	Randomised Controlled Trial
SM	Self-Management
SMS	Self-Management Support
WHO	World Health Organisation

Table of Contents

About this document

The position paper, Australia's Health Workforce, was released on 29 September 2005 by the Australian Government's Productivity Commission. That paper presents the initial findings of the commissioned study, Health Workforce.

This paper addresses several of the draft proposals identified in the position paper based on the Health Workforce study and is submitted by the Flinders Human Behaviour and Health Research Unit, Flinders University, South Australia (FHBHRU).

Findings of the Position Paper from the Productivity Commission

The position paper from the Productivity Commission suggests that government departments, health regulatory bodies and the medical profession are concerned that less than optimal health outcomes and health care delivery continue, despite escalating expenditure on health services. According to the position paper, some of the main factors contributing to this are the ageing population with increases in chronic illnesses, sub optimal delivery of services to Indigenous and remote and rural populations, and less than effective and inflexible models of health care delivery with ineffective use of existing health services.

In this submission, the FHBHRU will address several areas we see as relevant that have been identified in the draft proposals of the paper. These include:

1. The growing demand for health care services in an ageing population
2. The need to deliver more chronic care management
3. A systems approach to more efficient use of the existing health workforce
4. Opportunities to extend the roles of some health care workers while maintaining safety and equality
5. The use of self management principles in the health provision to Indigenous and remote and rural populations
6. The training and education of medical and allied health professionals in chronic condition management.

This submission will address these issues and include examples of how chronic care self-management (CCSM) has been successfully integrated into diverse health care delivery in Australia.

Why Chronic Condition Self-Management (CCSM)?

In 2003, Health Ministers agreed to the development of a National Chronic Disease Strategy under the auspices of the National Health Priorities Action Council (NHPAC). From the stakeholder workshop help by NHPAC in 2004, self-management was recognised as one of the key elements of the strategy alongside Prevention (across the continuum), Early Detection, Early Treatment, and Integration and Continuity of Care.

Given those findings, it would appear that there is a need for effective Chronic Condition Management (CCM) and Chronic Condition Self-Management (CCSM), and furthermore for CCSM to be incorporated into health care models at individual, community, systems and education levels.

With the costs of health care services increasing (Lorig, 1993) and the politics of competing for scarce resources, there are major implications for targeting of funding. It would seem impossible for the current funding and organisation of services to be able to persist without substantial change within the next decade. Hence, a call for population health strategies is crucial for the management of chronic disease. This needs a shift towards primary intervention from long-term institution-based care to short-term hospital stay followed by long-term care at home with community support and self-management. CCSM is recommended by the World Health Organisation (WHO) as the means of coping with this reality (World Health Organisation, 2002). For example, there is clear evidence that primary care involvement in routine review and surveillance of diabetes leads to reduced hospitalisations and better outcomes for patients.

Existing healthcare systems provide episodic care services, often by a single health professional, in response to patient demand, often with acute health events, while ignoring a holistic approach to the person's health and wellbeing and psychosocial environment. Perhaps this is the reason that many professional interventions appear to fail, e.g. in the addictions field. This also fosters a system where inpatient services and emergency departments become overloaded responding to perceived and actual acute needs, and uses much of the health budget at the expense of health promotion, early intervention and systematic, evidence based long term care. This is despite evidence that longer consults with GPs can impact positively on lifestyle factors and improve long-term health outcomes.

Another concern is that the current system of health care delivery focuses heavily on treating individual chronic conditions and delivering specialised disease management programs through specialist clinics. Under these circumstances of fragmented patient care, health professionals may under-treat or overlook other related or unrelated disorders, with deleterious consequences for the person's morbidity and mortality (McAlister, Lawson, Teo and Armstrong, 2001).

Extensive literature reviews have concluded that there is considerable evidence that interventions to promote self-management of chronic conditions (CCSM) result in improved health outcomes and reduction in service utilisation over the short to medium term. By combining this evidence, and consultations with experts and evidence from across the country, it will be clear that the following practical approaches for implementing CCSM can address the key areas identified in the position paper from the Health Workforce study.

What is Chronic Condition Self-Management (CCSM)?

In this report, we have used the term 'chronic condition' to replace 'chronic disease' (as termed by WHO), as we and consultants feel that this provides a more accurate reflection of the concept and avoids the negative connotations often associated with the term 'disease'. The WHO definition of Chronic Condition (World Health Organisation, 1986) is broad and includes HIV/AIDS, tuberculosis, cardiovascular disease, diabetes, and long-term mental illness (World Health Organisation, 2002).

The Centre for Advancement of Health definition of self-management, "involves (the person with the chronic condition) engaging in activities that protect and promote health, monitoring and managing the symptoms and signs of illness, managing the impact of illness on functioning, emotions and interpersonal relationships, and adhering to treatment regimes." The three tasks of disease, role and emotional management are similarly defined by Lorig and Holman (Lorig and Holman, 2003) and Strauss and Corbin (Corbin and Strauss, 1988).

This paper is based on the definition of self-management that encompasses the attributes of the individual with a chronic condition cited above, but also incorporates the practice/organisation, the community and existing health service delivery methods, and generic health system.

More specifically, CCSM is about how the individual, the health care professionals and the system share responsibility and work together to support the achievement of better health and wellbeing as defined by both the individual and the professional, acknowledging the social, psychological, biological and spiritual aspects that impact on self-management ability. CCSM involves the identification of issues, setting of goals, and commitment to action components that encompass a multidisciplinary approach with progress and outcomes measurable via action plans that can be reviewed over time by interrelated health care professionals.

Models of CCSM

Models of CCSM have been integrated into health care delivery in several countries, including the "Expert Patient" program in the UK (National Health Service, 2005), the "Breakthrough Series Collaboratives" in the USA and "Chronic Care Collaboratives" in Australia. The delivery of CCSM in these countries has been largely based on two models of CCSM delivery: the Stanford Model (Lorig, Ritter, Stewart, Sobel, William Brown *et al.*, 2001) and the Flinders Model (Battersby, Ask, Reece, Markwick and Collins, 2003).

Since 1988, Lorig and colleagues have developed the Stanford chronic condition self-management course, for people with chronic conditions (Lorig, Holman, Sobel, Laurent, Gonzalez et al., 2000). It is a six week group, peer-led generic chronic condition course, which aims to teach people self-management skills. It has been shown to improve health outcomes and reduce service utilisation in several randomised controlled trials (Commonwealth Department of Health and Ageing, 2003; Lorig, Sobel, Stewart, Brown, Bandura et al., 1999; Lorig and Holman, 2003). Lorig et al. (1999) have also demonstrated that these courses produce stronger self-management outcomes when led by at least one peer educator, rather than just by health professionals. The Stanford model is taught by a health care professional and patients to patients in a group setting.

The Flinders Model has been progressively developed over the past eight years, at the Flinders Human Behaviour and Health Research Unit (FHB&HRU), Flinders University. It is a model that educates all health professionals and Aboriginal Health Workers about self-management, but more importantly provides them with a clinically logical process that is both patient centred and helps determine what self-management support is necessary for the patient. One possible education option is the Stanford course. The Flinders process provides a mechanism for assessment and planning, not the actual self-management education skills themselves. It then clearly defines who is responsible for

what over a 12 month period. While it is clear that the two models are complimentary, the Flinders Model is required for all people who have a chronic condition, a proportion of whom will require or will accept a Stanford course.

The clinician administered model, underpinned by cognitive behavioural therapy (CBT) principles, offers a generic approach to chronic condition self-management that can be applied to a wide range of health conditions and for multiple conditions in the same patient. This contrasts with the US models, which, although generic in the system approaches, are disease specific and do not allow an easy combination of information from various conditions for a given patient. The Flinders Model has the advantage of structuring systems of self-management within routine care in health care organisations, in the community and for the individual.

Evidence supporting the efficacy of the Flinders Model of CCSM

The national evaluation of the Sharing Health Care demonstration projects demonstrated "improved health outcomes, quality of life and reduced service use" for all projects.

- The Flinders Model has been trialed in pre and post design projects in two Indigenous communities in patients with diabetes, the intervention delivered by Aboriginal Health Workers (Battersby, Ah Kit, Prideaux, Harvey and Collins, in submission). At twelve month follow-up, there were significant improvements from baseline in self-management ratings and in the diabetes project improved HbA1c.

- Similar results were seen in the Noarlunga Mental Health Chronic Disease Self Management demonstration project for patients with chronic severe mental disorders, delivered by mental health case workers and GPs and combined with the Stanford generic chronic disease course (Lawn, Battersby, Pols, Lawrence, Parry et al., in submission). In that project at 12 month follow-up, there were significant improvements from baseline in self-management ratings and in the mental health quality of life as assessed by the SF-12.

- The Whyalla Sharing Health Care self-management project in a pre post design also used the Flinders Model for assessment and care planning, with many patients attending the Stanford course. There were significant improvements in self-management and measures of pain, fatigue and improved service usage, which were maintained at 18 months follow-up.

- In a randomised trial of patients with chronic obstructive pulmonary disease (COPD) using the Flinders Model, GP practices were randomised and their intervention patients received either the chronic obstructive pulmonary disease (COPD) + the Flinders Model of self management or chronic obstructive pulmonary disease (COPD) alone. At 12 months follow up, patients in the Flinders Model group had maintained significant improvement in exercise tolerance with a 6 minute walk being a mean of 75 m longer than the control group (Rowett, Simmons, Cafarella and Frith, 2005).

How can CCSM and the Flinders Model address issues identified in the draft proposals of the Productivity Commission position paper?

Below are listed 6 areas in which we believe the Flinders Model of CCSM can address issues identified in the draft proposals of the Productivity Commission position paper.

1. The growing demand for health care services in an ageing population

In Australia, the proportion of the population aged over 65 years will rise from 12% in 2002 to 26% by 2051 (Australian Department of Health & Ageing, 2002). As nearly half of lifetime healthcare system expenditure is incurred during the senior years (Alemayehu and Warner, 2004), with most of the costs (90%) compressed into the last seven years of life (Fries, 1980), health care costs will more than double over the next four decades. An increasingly ageing population in most developed countries (12% in 2002 to 26% in 2051 over 65 years of age in Australia) means that health systems will need to change to cope (Australian Institute of Health and Welfare, 2002).

With the increase in the age of the population comes the increase in age related chronic disease (e.g. diabetes, arthritis, heart disease). Therefore, as our population ages, the demand for healthcare service delivery for chronic conditions will increase to an unsustainable level unless changes to delivery of health care to patients with chronic conditions are implemented.

A generic strategy rolling out CCSM would be an ideal way of coping with the pressure of scarce resources in the context of a growing population of chronically ill, with disease specific components lying within this. This would include effectively addressing and minimising risk factors as identified by SNAP (tobacco, unhealthy diet, physical inactivity, alcohol).

The Flinders Model of CCSM has been shown to be effective in optimising health care delivery to older Australians with chronic conditions by reducing visits to emergency departments and maximising utilisation of current health care delivery (Battersby, 2005).

2. The need to deliver more chronic care management

Chronic conditions currently account for 60% of global disease burden, and this will increase to 80% by 2020 (Murray and Lopez, 1996). The demand on health services has shifted from managing acute conditions to maintaining a healthy life for people with chronic conditions (World Health Organisation, 2004). Internationally and in Australia, healthcare systems are under substantial pressure from rising medical costs that are outstripping the capacity of nations to afford them.

As a way forward, the World Health Organisation (WHO) (World Health Organisation, 2002) report provides a chronic conditions framework expanded on the evidence based Chronic Care Model (CCM) (Wagner, Austin and Von Korff, 1996). Patient chronic condition self-management (CCSM) and self-management support by clinicians and organisations are essential components of all chronic care programs (World Health Organisation, 2002).

By increasing reliance on self management, integration of the Flinders Model would:

- Alter the focus of caring for individuals with chronic conditions from acute care, therefore decreasing reliance on emergency departments in overloaded public hospitals
- Increase individual participation in disease management and utilise existing support mechanisms in the community more efficaciously
- Ease the burden of general practitioners by giving more responsibility to the individual and relevant existing support systems that may be under utilised
- Shift the burden of health care funding from acute services to more sustainable long term solutions.

2.1 The need to deliver more chronic care management in mental health

Mental health conditions make up a major health burden internationally (World Health Organisation, 2002). More importantly, mental illnesses are usually chronic conditions.

WHO estimates that by 2020 depression alone will be the biggest health problem in the developing world, and the second biggest cause of disease burden worldwide (Murray and Lopez, 1996). Therefore, developing systems of care that support better self-management in a co-ordinated way would seem crucial for this group. This involves an understanding of how these systems currently provide mental health care and what changes are required in order to achieve better management of mental health conditions.

Mental health conditions alone account for 18% of those in the Australian population (Australian Institute of Health and Welfare, 2005). In addition, there is a high level of comorbidity of mental illness with physical illness and other chronic conditions. Mental health comorbidity presents particular challenges and risks, with 2 to 3 times the risk of developing and dying from all of the major physical health conditions than people without mental illness (Coghlan, Lawrence, Holman and Jablensky, 2001). The suggested reasons for this are that their illness, when poorly managed, causes them to adopt an unhealthy lifestyle and to be less inclined to seek help (Osby, Correia, Brandt, Ekbom and Sparen, 2000). For example, the high rates of cigarette smoking (up to three times more than for the general population) combined with diets containing higher fat, lower fibre and low levels of exercise can also account for poor health outcomes for people with mental illness (Brown, Birtwistle, Roe and Thompson, 1999). Most current interventions to improve chronic illness care are disease specific and do not address the realities of general practice or mental health services where consumers have more than one physical or mental illness.

The cost of mental illness is high. Mental illness accounts for some 20% of the burden of disease management in Australia, and yet only 5% of the health budget is spent on services to the mentally ill. This 5% nonetheless equates to $1.997 billion spent on mental health services across Australia in 1995–1996 (National Mental Health Strategy, Department of Health and Ageing, 1998). The major costs incurred for mental health are in large part through the Medicare benefits schedule, Pharmaceutical Benefits Scheme and other public health initiatives. Shifting the focus of mental health care delivery from an acute care model to incorporate chronic condition self management and community based chronic condition support would ease reliance on emergency departments in overloaded public hospitals.

Research suggests that of those with a mental condition who had sought help from a health professional, in most cases this was their general practitioner, rather than a specialist mental health professional (Andrews, Hall, Teeson and Henderson, 1999). However, general practitioners are mostly under skilled in self management and therapeutic skills (such as cognitive behavioural therapy) for those with mental illness. Individuals with mental illness are often treated in isolation, providing silos of care that have arguably done little to encourage self management. Furthermore, the general health workforce is similarly under-skilled in mental health conditions care delivery, particularly in self management and chronic condition support. Consequently, consumers have been treated largely in isolation by primary health care practitioners with insufficient mental health training and their comorbid physical health conditions have often been ignored or overlooked. A system of care planning that optimises allied health professionals and self management would appear to be more advantageous.

It would appear, then, that education and training in chronic condition self management is necessary for allied, primary and tertiary health care professionals for three reasons: first, because recent research has shown that GPs are the sole source of treatment for two thirds of individuals with mental conditions and mental illness, second, because mental illness is often treated in isolation and third, because the cost of treating mental illness in acute settings such as emergency departments is very high.

3. A systems approach to more efficient use of the existing health workforce

The implementation of CCSM has been recognised as a major need in the delivery of healthcare systems. In fact, WHO (2002) articulates a range of innovative care elements for chronic conditions and provides several international examples of innovative programs. Its emphasis is on reorienting health care systems via a range of building blocks for action that:

- Support a paradigm shift
- Manage the political environment
- Build integrated health care
- Align sectoral policies for health
- Use health care personnel more effectively
- Centre care on the patient and family
- Support patients in their communities and
- Emphasise prevention.

With this in mind, implementation of systematic CCSM into Australian health care systems involves execution at several levels –

1. the patient level
2. the level of the health care provider (s)
3. the community level
4. the health system level and
5. the health policy level.

1. At the patient level there is a need for increased patient education and support, which includes prepared, informed, and motivated patients and families, health care teams and carers.

Multiple entry points will need to be identified to engage individuals and patients in increasing awareness of chronic condition self-management programs, e.g., hospitals, general practice, mental health services, Aboriginal Medical Services, pharmacies, community health centres, local council offices, libraries. These entry points could provide information, posters, pamphlets, etc., nominating a call centre, Division of General Practice or non government entry points to assessment and care planning.

2. At the health care provider level, GPs would appear to be best placed to deliver and drive CCSM care planning, in partnership with the patient, their family, other health providers and community agencies, given that 90% of Australians see a GP each year (Commonwealth Department of Health and Aged Care General Practice Strategic Policy Development Unit, 2000).

The major 'business' practice shift that will be required in the Australian setting will be to move from one on one clinical practice to team practice. There are cultural, training and financial barriers to this. The major "clinical' practice shift will be to move from the expert professional-patient relationship to one that involves more shared decision-making and genuine partnership. Hence, many of the barriers relate to behaviour change by patients and service providers and resistance to change that includes professional rivalries, professional differences and training, and reluctance to relinquish ownership or take on new ideas. Progress is further thwarted by a range of systemic factors that perpetuate conflicting approaches to service delivery, such as duplication of services that only serve to maintain silos.

At this level, coordination of Commonwealth and State funded programs with a common set of objectives and skill requirements in training health professionals in CCSM will reduce the burden on general practitioners, and encourage the use of other health care professionals within the practice (such as nurse managers, diabetes educators) in such areas as home medication review, EPC

coordinators, chronic illness program coordinators, population health coordinators and mental health workers.

3. At a community level, existing community health and wellbeing programs that promote continuity and coordination of services would be better utilised within the overall care planning of the patient, hence concreting the enormous role of community self help and health promotion organisations in supporting self-management and prevention, and effective information delivery. Currently only 8–15% of people with chronic illness attend self management programs. These courses require mainstream funding: CCSM must be owned by the community, not just the health system. Therefore, a community development focus that promotes the community's capacity to support its members, including those with chronic illness, is essential. In many instances these processes are already in place, but their services are under-utilised.

4. At the system level, divisions of general practice should incorporate self-management within their programs, based on the regional model where general practice has been actively engaged in designing and prioritising chronic care and self-management initiatives. This process would be facilitated if co-ordinators receive training and education of a common model of self-management.

General practice change would be accelerated if there was a Chronic Care Business Model program that included draft step by step clinical and office systems pathways (several examples for different GP models), financial (MBS) models, software programs and expected outcome measures to be collected. A payment would accompany the delivery of a practice business model to the Commonwealth. In addition to this one-off payment, incremental payments could accrue on the receipt of standard outcome measures and targets achieved.

Incentive payments to incorporate self-management actions and goals and preventative care could be provided for GPs and practices and patients, for example as for private insurance funding of gym attendance, exercise classes, and attainment of medical monitoring measures.

5. At the health policy and political level, there needs to be a national coordinated approach to accreditation and quality assurance of the Stanford, Flinders and other self-management programs.

In summary, for chronic condition self-management to become an accepted and established part of health care in Australia, a range of support structures and relationships need to be developed or enhanced. This involves a significant change in the behaviour of health professionals, as well as raising awareness in the community with informed, activated patients who manage, promote and maintain health and wellness, thus minimising health risks. It involves proactive practice teams and agencies trained in CCSM, which together need collaborative social, economic and political systems that address the social determinants of health inequity through effective education and training systems and resource management in chronic condition self management. It also involves increasing the capacity of the primary (as well as secondary and tertiary) and acute health care sectors to provide timely, coordinated and integrated chronic disease management.

4. Opportunities to extend the roles of some health care workers while maintaining safety and equality – a more efficient use of the existing workforce?

There needs to be proper recognition of the realities of GPs' ability to apply the strategy of implementing care planning and effective follow up in practice. Currently the primary health care system offers little towards a generic approach to self-management. GPs are faced with several different strategies, one for each disease area. With the pressure of busy practices and ever changing and expanding knowledge of treatments, GPs have limited time to apply these individual strategies effectively.

Practice nurses, allied health professionals in community centres and Aboriginal health workers are already engaged in care planning in some states and territories. With sufficient CCSM training these allied health workers would be able to be integrated into the patient care plan delivery and therefore ease the burden on the GP. MBS item numbers within the EPC for self-management assessment and practice nurses specifically, would enable this process to become systemic.

Would less restrictive delineation of work responsibilities within and between professional groups therefore allow better use to be made of the health workforce? The GP role as a specialist collaborating within a multi-disciplinary team system where practice nurses and allied health can be allocated the roles of monitoring and utilising existing community services may be a more optimal use of existing services, alleviating excessive duties for the GP. Furthermore, at the tertiary level, hospitals are not well quipped for the delivery of CCSM, and acute service delivery is suffering as a result. Better service delivery for chronic conditions through better use of the current workforce as outlined above, or reallocation of duties would relieve the current overload in the acute care within the public hospital system.

5. The use of self management principles in the health provision to Indigenous and remote and rural populations

The commission found that the current pressures on Australia's health system and health workers are already leading to workplace shortages in some specific populations (Indigenous Australians), and people living in regional and remote areas. While system-wide initiatives to promote better health workforce outcomes may assist these groups, more targeted initiatives are also likely to be required. We believe that CCSM training can be one of these initiatives.

Among Indigenous Australians there is a high prevalence of chronic diseases and risk factors, entrenched co-morbidity issues, limited infrastructure that supports behaviour change, early deaths and recurrent grief that reduce capacity of Indigenous communities to be resilient and to support self-management solutions. It has been suggested that healthcare delivery systems need to shift from acute response to program response, disease registers and population lists, recall systems, co-ordinated adult screening programs, and more outreach services (Connors and Shields, 2003).
A pilot program has been undertaken in an Indigenous population in South Australia, which demonstrates the efficacy of the CCSM and the Flinders Model, in particular in improving patient self-management. Sixty Indigenous people with type-2 diabetes participated in a self-management program delivered by an Aboriginal Health Worker (AHW). Self-management improved in five of six domains and mean indicators of diabetes (HbA1c) reduced significantly.

This study suggests that self-management programs provided by AHWs is feasible, improves self-management and is seen to be useful by Indigenous communities. Furthermore, it is of note that the use of AHWs in diabetes SM indicates flexibility in the delivery of professional health care that maximises available systems. It further indicates that training in CCSM can enable the delivery of effective health care to remote communities who may not have access to general practice.

In regional areas there is often collaboration and sharing of understanding with co-located agencies, e.g., rural community health centres where there is a lot of cross-fertilisation of ideas, learning and skills between workers and between agencies merely because they share working space. This presents a major opportunity to build on the goodwill of the sector in these regions. CCSM would enhance health care delivery to these populations with specific needs. This idea is supported by NHPAC/ Palm Consulting Group workshop (National Health Priority Action Council and Palm Consulting Group, 2004), and is supported by the results of the above study.

6. The training and education of medical and allied health professionals in chronic condition management

The evidence presented above suggests that the implementation of CCSM would be beneficial to health care delivery in Australia.

A coordinated approach to training and education of this model is needed at several levels in order to facilitate this:

- 6.1. Increasing community education and awareness of self management principles
- 6.2. Training our medical professionals and allied health professionals in CCSM
- 6.3. Higher education possibilities.

6.1. Increasing community education and awareness of self management principles

At a community level, the advantages of the CCSM model of health care delivery needs to be integrated into practices and community health. Education and training of community leaders and community based health professionals and peer leaders in the Flinders and Stanford models are provided in some states and territories. An extended and systematic training and education program is required in each state and territory for both models. Both models have provider training and train the trainer programs.

6.2. Training our medical professionals and allied health professionals

There remains a considerable gap in the skill base of the health care workforce in the areas of CCSM. The continuing development and understanding of improved models of care for chronic conditions has implications for the curriculum currently taught in medical schools. The federal and state governments agree that there is a need for medical students to have an appreciation of this framework of health care. It is recognised that medical curricula are already overloaded; nevertheless, future practitioners will be confronted with these issues and changes. Universities have been responsive to the needs of changing demands in clinical practice. It is argued that there is a need for curriculum development at this time, so that future medical practitioners will be able to take the appropriate leadership and team roles in the management of chronic illness within the community and to understand the need for a flexible health workforce. A high level of skills in CCSM support will be required.

A national workshop of representatives of eight medical schools from the CCSM Special Interest Group (SIG) of the Australian and New Zealand Association on Medical Education (ANZAME) met in September 2004 with representatives of the FHBHRU, to consider curriculum content in CCM and CCSM. This was based on a pilot initiative in the development of a CCSM curriculum in the Graduate Entry Medical Program (GEMP) at Flinders University, which commenced in 2003 and is now in its second year of being trialed at Flinders University Medical School.

As a result of this trial, and given the identified need by federal and state governments for the introduction of CCSM education for our future health professionals, the FHBHRU has been awarded a contract for undertaking a process of reviewing chronic condition self management (CCSM) content, educational methodology and resources/materials already in use in all 15 medical schools in Australia. This project will aim to:

- Clarify if, and where, any potential gaps in CCSM education are in Australian medical school curricula
- Identify and share information on best practice in CCSM education, and
- Represent a cost effective and efficient approach to rolling out CCSM into medical school curricula.

6.3 Higher education training and post graduate opportunities in CCSM of the Flinders Model

The FHBHRU has developed an ongoing program of CCSM education over the last 8 years.

- Initial accreditation to deliver health care utilising the Flinders Model is awarded through a 2 day workshop for health professionals. Over 150 workshops have been delivered in Australia, New Zealand and the United States, with over 50% allied health professionals already certified in utilising the Flinders Model of CCSM in their practices. These allied health professionals include nurses, occupational therapists, GPs, physiotherapists, diabetes educators, Aboriginal health workers and community health workers.
- Those accredited to utilise the Flinders Model of CCSM may undertake an additional two day workshop to become an accredited trainer in the Flinders Model and can further train health care professionals in their organisation or region. Fifty-nine participants have attended the trainer accreditation workshop to date.
- These two courses are a prerequisite for undertaking a Graduate Certificate in Health: Self-Management through Flinders University.

In addition, the Masters of Mental Health Science is available through Flinders University, and is the only post graduate course for allied health professionals including non psychologists that provides comprehensive mental health assessment and treatment skills with a focus on Cognitive Behavioural Therapy and has CCSM as an elective.

A needs analysis for CCSM curricula has been conducted for nursing, allied health and Aboriginal Health Worker undergraduate, vocational and post graduate courses to investigate the possibility of introducing similar training in the Flinders Model to other health professionals.

Summary

In this submission, the FHBHRU has attempted to address several areas we see as relevant to the issues identified in the position paper form the study Australia's Health Workforce, undertaken by the Australian Government. These include:

1. The growing demand for health care services in an ageing population
2. The need to deliver more chronic care management
3. A systems approach to more efficient use of the existing health workforce
4. Opportunities to extend the roles of some health care workers while maintaining safety and equality
5. The use of self management principles in the health provision to Indigenous and remote and rural populations
6. The training and education of medical and allied health professionals in chronic condition management.

The FHBHRU believes that by embracing and implementing CCSM on an individual, community and organisational level, the health care system will be better able to cope with the increasing demands placed on it by the changing trends in the Australian population and to cope with future trends in health care delivery.

Appendix 1 The Flinders Model Information Paper

Flinders Human Behaviour & Health Research Unit

Flinders University

Adelaide • Australia

The 'Flinders Model'

of Chronic Condition Self-Management

Information Paper

What is the Flinders Model?

Flinders Human Behaviour & Health Research Unit (FHBHRU) has developed a generic set of tools and processes that enables clinicians and clients to undertake a structured process that allows for assessment of self-management behaviours, collaborative identification of problems and goal setting leading to the development of individualised care plans. These care plans are important cornerstones in enhancing self-management in people with chronic conditions. The tools include the Partners in Health Scale ©, Cue and Response Interview © and Problem and Goals Assessment. The Problem and Goals Assessment, which is included as an integral part of the Flinders Model, was developed from a problems and goals questionnaire originated by Professor Isaac Marks, Institute of Psychiatry, London. Professor Marks has authorised the use of his assessment tool by Dr Malcolm Battersby, Director, Flinders Human Behaviour & Health Research Unit at Flinders University.

History and Development

FHBHRU, originally the Coordinated Care Training Unit (CCTU), was established within the School of Medicine at Flinders University, to provide support and training for service coordinators and general practitioners during the SA HealthPlus trial. The SA HealthPlus Trial was one of the largest of the first round Coordinated Care Trials, enrolling 3,100 clients into its intervention arm. The Problem and Goals assessment was used routinely with all SA HealthPlus intervention clients.

The Partners in Health (PIH) scale and the Cue and Response interview were developed in response to the learnings from this trial. It became evident that 'self-management' was a key factor in determining a client's need for a 'coordinator' to work with them and their GP. The CCTU undertook an extensive literature review to look at 'self-management'. What do we mean by 'good' self-management? What research has been undertaken? Are there assessment tools available to look at client's self-management ability or status? What would be the use of such tools?

It was found that there was substantial evidence around characteristics of good self-management and the characteristics of programs that improve people's ability to self-manage, as well as evidence that structured self-management and behavioural change programs improve health outcomes for people with a range of chronic diseases. While there were some disease specific assessment tools described, there were no generic assessment tools, or processes, to measure self-management.

What is effective management of chronic disease?

The literature suggests that we need to consider these components in effective management of chronic disease:

- Collaboration
- Personalised care plans
- Self-management education
- Adherence to treatment
- Follow up and monitoring.

The research also suggests that programs that are successful in improving self-management have the following characteristics:

- Targeting
- Goal Setting
- Planning.

So what is self-management?

The definition of self-management as developed by the Centre for Advancement of Health (1996) was adopted by SA HealthPlus.

Self-management

> *involves (the person with the chronic disease) engaging in activities that protect and promote health, monitoring and managing the symptoms and signs of illness, managing the impact of illness on functioning, emotions and interpersonal relationships and adhering to treatment regimes.* (p. 1)

Kate Lorig (Stanford University, 1993), one of the leading researchers in this area, adds that self-management is also about enabling

> *participants to make informed choices, to adapt new perspectives and generic skills that can be applied to new problems as they arise, to practise new health behaviours, and to maintain or regain emotional stability.* (p. 11)

The Six Principles of Self-management

The following characteristics could therefore be seen to summarise a "good" self-manager.

They are individuals who:

1. Have knowledge of their condition
2. Follow a treatment plan; (care plan) agreed with their health professionals
3. Actively share in decision making with health professionals
4. Monitor and manage signs and symptoms of their condition
5. Manage the impact of the condition on their physical, emotional and social life
6. Adopt lifestyles that promote health.

These six characteristics could be considered to be the *Six Principles of Self-management*.

Aim of The Flinders Model

The aim of the model is to provide a consistent, reproducible approach to assessing the key components of self management that:

- improves the partnership between the client and health professional(s)

- collaboratively identifies problems and therefore better (i.e. more successfully) targets interventions
- is a motivational process for the client and leads to sustained behaviour change
- allows measurement over time and tracks change
- has a predictive ability, i.e. improvements in self-management behaviour, as measured by the PIH scale, relate to improved health outcomes.

Assessment Tools

- Partners in Health Scale
- Cue and Response interview
- Problems and Goals Assessment

Leading to

- Identification of Issues
- Formation of an individualised Care Plan
- Monitoring and reviewing

Partners in Health Scale (PIH)

The PIH is a twelve part questionnaire that is based on the six principles of self management. The client completes the questionnaire by scoring their response to each question on a nine point scale, zero being the best response and eight being the worst.

The questions cover the following 12 areas:

- Knowledge of condition
- Knowledge of treatment
- Ability to take medication
- Ability to share in decisions
- Ability to arrange and attend appointments
- Understanding of monitoring and recording

- Ability to monitor and record
- Understanding of symptom management
- Ability to manage symptoms
- Ability to manage the physical impact
- Ability to manage the social and emotional impact
- Progress towards a healthy lifestyle.

Cue and Response Interview (C&R)

The 'Cue and Response' (C&R) interview is an adjunct to the PIH scale. The C&R process uses a series of open-ended questions or cues to explore the patient's responses to the PIH Scale in more depth. It enables the barriers to self-management to be explored, and it checks assumptions that either the clinician or the client may have. The clinician can score the responses and compare their score with the client's scores. Whilst originally developed to enable the patient's perception of their self-management, as recorded on the PIH scale, to be "validated" by the health professional, it has proved to be a useful clinical tool in its own right.

Some examples of cue questions are to be found in Table 1. The cue questions are not prescriptive and serve as examples of the types of questions that may be asked.

Table 1 : Examples of Cue Questions

Knowledge of Treatment
Tell me about the treatment are you having.
What can you tell me about your medication?
What do you know about alternative treatment?
Tell me about any other treatment that has helped you.
What are the things that stop you having, (or following) your treatment?
Sharing in Decisions
How comfortable are you talking to your doctor or other health professionals?
What are the problems?

How are you included in decisions about your health?

Healthy Lifestyle

What are you doing to keep yourself healthy?

What are the things that you are doing that don't help?

What are the things you would like to change?

The PIH scale and C&R interview tools can be used together or individually. The C&R, in particular, can be a motivational process for the client and a prompt for behaviour change. It allows the individual the opportunity to look at the impact of their condition on their life, and some time to reflect on cause and effect.

Scores rated on the higher end of the scale, by either client or health professional or both, flag issues for further discussion. This allows for clarification of issues and a common set of problems to be identified by client and health professionals. It also allows the clinician to acknowledge areas where the client is managing well. Collaborative problem identification has been found to be a key indicator in successful self-management programs (Wagner, Austin and Von Korff, 1996). Identification of issues allows relevant strategies and interventions to be discussed and agreed on.

This information is easily incorporated into a care plan, whether it is a care plan supported by the Enhanced Primary Care (EPC) MBS, or simply one that involves the health professional and the client.

The process is generic not disease specific. It looks at the components of self-management, that is how the tasks associated with self-management are being completed. These are common tasks across diseases, e.g. managing the impact of the disease on their life, monitoring and managing the symptoms, adopting healthy lifestyles, etc. (Lorig, Sobel, Stewart et al., 1999).

Appendix 2

Examples and selected case studies

1. SA HealthPlus, First Round of Coordinated Care Trials – a Commonwealth/ State initiative promoting reform in the health and community sector, particularly for individuals with chronic and complex conditions. The underlying principle of the trials was that the management of chronic conditions might be improved by better coordination between service providers and by a different system of payment outside of the Medicare fee-for-service arrangements (Battersby, Ask, Reece, Markwick and Collins, 2001). 4300 participants, six chronic conditions projects, behavioural care planning introduced for the first time, integration of nine electronic data sets, development of the Partners in Health approach.

2. Sharing Health Care Demonstration Projects

This has involved a series of 12 Australia-wide demonstration projects focusing on mature adults (50 years and older or 35 years and over for Indigenous populations) using a combination of methods, largely the Stanford and Flinders Models. Projects have targeted both disease specific (cardiovascular disease, diabetes, arthritis, osteoporosis, respiratory disorders, and depression as a comorbidity) and generic groups. Stanford-based projects have demonstrated a range of outcomes with similar barriers as the UK and US experience identified by various projects, e.g. problems with access to groups and recruitment, though with high face validity noted from participant feedback (Australian Government Department of Health and Ageing, 2003; Borg, Ackland and Wanganeen, 2003; Connors and Shields, 2003; Harvey and Battersby, 2003; Lawrence, Markwick, Williams, Pols and Battersby, 2004; Mobbs and Bell, 2003; Warren, Richardson and Norman, 2003). Outcomes of projects using the Flinders Model have been particularly positive for Indigenous populations and in rural settings (e.g. Pika Wiya project).

3. Heart Support Australia (HS-A) (Heart Support Australia, 2004)

A peak cardiac consumer organisation with 61 branches across Australia is providing volunteer lay counselling services, individual and group peer support and education rehabilitation. A scoping study reviewed a number of models of self-management (Stanford/Lorig, the Flinders Model, Lill project UK, the Australian sharing Health Care Initiative, the EPP UK and the Gruman and Von Korff (ICCC)) model. This was followed by

consultations, the development of a training package for lay counsellors. Trials of this package occurred in four hospitals (WA, ACT, Qld, NSW). Evaluation found a range of barriers to effective implementation of the model. These problems included: defined roles between peers and staff, MoU between hospital and HS-A and co-ordination within each setting, and medical staff acceptance of peer role and responsibility. Despite these barriers, the evaluation showed that trained lay volunteers were effective in encouraging consumers with cardiac conditions to work productively with health care providers and to adopt healthier lifestyle behaviours.

4. The Good Life Club (Melbourne, Victoria)

The project is one of the 12 Sharing Health Care initiatives. It involves coaching people with diabetes via the telephone in order to develop self-management plans. These plans are adapted from the Flinders Model's problems and goals tool. A consortium of eight health agencies from the eastern suburbs of Melbourne have participated, with 45 multi-disciplinary health practitioners initially recruited and trained in telephone coaching, which has included skill development that drew from motivational interviewing and the Royal Australian College of General Practice CDSM guidelines. The project has been successful in engaging GPs, improved Allied health coaches' capacity to promote improved self-management, and achieved behaviour change in people with diabetes. It has the potential to be an efficient means of accessing a large population base and could be expanded to other multimedia to accommodate the needs or varied populations (Kelly, Menzies and Taylor, 2003).

5. NSW Project

A NSW project, one of 12 demonstration projects across Australia, targeted people over 50 years with a range of physical health conditions, with the aim of reducing hospital usage by improving overall self-management skills, and changing attitudes of clients, managers and health service providers. This study showed that all three groups benefited from using the model. Participants became more independent, worker satisfaction improved due to being involved in changes that resulted in improved work practices. They were also more able to refocus on secondary and primary prevention, not merely tertiary interventions. Managers were empowered to argue for more holistic approaches to primary health care and to develop

better networking and referral practices with other service providers (SWSAHS/NSW project, p. 253).

6. Effective Self-Management of Chronic and complex Lung Diseases, (Repatriation General Hospital, Adelaide, SA)

This study involved a prospective unblinded randomised controlled trial comparing the effectiveness of a CDSM program versus usual care from a GP for patients with chronic airways disease. The CDSM program involved collaboration between patients, GPs and practice nurses and used the Flinders Model to negotiate a care plan in combination with the RGH Pulmonary Rehabilitation education and exercise program over an eight week period. Participants were followed up during a 12 month period. Patient participants in the CDSM program gained a greater sense of control over their health and GP participants were empowered to support them. A clinically significant improvement in the "six minute walk" was achieved, as was increased patient knowledge about their condition and medications. The complexity of requirements of the EPC care planning process proved to be major barriers for many GPs. The input of practice nurses in implementing the Flinders health assessment items was very successful (Rowett, Simmons, Cafarella, Frith, 2005, draft report).

7. The Noarlunga Chronic Disease Self Management Mental Health Project, 2001–2, Adelaide, SA.

This project used the Flinders Model and Stanford model. Its strength was its focus on behaviour change for client participants, mental health key workers and GPs, and its use of lay peer leaders for both individual motivational and emotional support to participants and co-facilitation of Lorig groups. Clear positive outcome were achieved by using a problems and goals approach, though several cultural and systems barriers to successful embedding into practice were identified. The project was evaluated both quantitatively and qualitatively. Both demonstrated clear benefits for people with mental illness, many who had severe and enduring mental illness and who were long-standing clients of community mental health services. Of note, first episode psychosis suffers did particularly well with this structured approach. Many participants' goals centred around quitting smoking or becoming more physically active. A case study, demonstrating the use of the Flinders Model tools and some

of the outcomes achieved for the client, the health professionals and the mental health service, appears in the appendix (Urakalo, Lawrence and Lawn, 2004). (Refer Appendix 2)

Aboriginal projects

8. Pika Wiya Health Service, Spencer Gulf, SA

This project recognised a need for time, relationship building, recognition of existing skills people have for coping, respect for person and their concept of health, which is often dependent on language group and history. It promoted community ownership and active participation by responding to what the community identified as needed, including home visits, one to one visits, and acknowledgement of health in relation to community and family obligations. This was a holistic health approach that acknowledged extended family, community obligations and social impacts. Project staff role models had a greater significance for this population, and was linked to respect issues and the historical context of colonisation and its impact (Russell and Coulthard, 2003).

Four additional projects funded by DHS have been completed in South Australia These projects have shown encouraging outcomes both statistically and clinically in the areas of mental health, diabetes in rural Indigenous populations, chronic lung disease and heart disease. Details of the projects can be obtained from our website at http://som.flinders.edu.au/FUSA/CCTU/Home.html.

References

Alemayehu, B. and Warner, K. E. (2004) The Lifetime Distribution of Health Care Costs, *Health Services Research,* **39,** 627-642.

Andrews, G., Hall, W., Teeson, M. and Henderson, S. (1999) *The Mental Health of Australians, National Survey of Mental Health and Wellbeing. Report 2.*, Commonwealth Department of Health and Aged Care Canberra.

Australian Department of Health & Ageing (2002) National Strategy for an Ageing Australia; An Older Australia Challenges and Opportunities for All, http://www.ageing.health.gov.au/ofoa/agepolicy/nsaa/nsaabk4.htm, Retrieved 30 June 2004. Canberra.

Australian Government Department of Health and Ageing (2003) Guiding Us Forward ~ National Chronic Condition Self-Management Conference ~ Conference Proceedings in *Guiding Us Forward ~ National Chronic Condition Self-Management Conference*, Commonwealth Department of Health and Ageing, Melbourne, 12-14 November 2003.

Australian Institute of Health and Welfare (2002) *Chronic Diseases and Associated Risk Factors in Australia, 2001*, Australian Institute of Health and Welfare Canberra.

Australian Institute of Health and Welfare (2005) Mental Health, http://www.aihw.gov.au/nhpa/mentalhealth/index.cfm, Retrieved 2 June 2005. Canberra.

Battersby, M., Ask, A., Reece, M., Markwick, M. and Collins, J. (2003) The Partners in Health scale: The development and psychometric properties of a generic assessment scale for chronic condition self-management, *Australian Journal of Primary Health,* **9,** 41-52.

Battersby, M. W. (2005) Health reform through coordinated care: SA HealthPlus, *British Medical Journal,* **330,** 662-665.

Battersby, M. W., Ah Kit, J., Prideaux, C., Harvey, P. W. and Collins, J. P. (in submission) Implementing the Partners in Health Program for Diabetes Self-Management Support in Aboriginal Communities: A Pilot Study.

Battersby, M. W., Ask, A., Reece, M. M., Markwick, M. J. and Collins, J. P. (2001) A Case Study Using the "Problems and Goals Approach" in a Coordinated Care Trial: SA HealthPlus, *Australian Journal of Primary Health,* **7,** 45-48.

Borg, J., Ackland, A. and Wanganeen, M. (2003) The Indigenous CDSM Project: Port Lincoln and Ceduna Koonibba Health Service - an outline of the model in *Guiding Us Forward: National Chronic Disease Self-Management Conference*, Australian Government Department of Health & Ageing's Sharing Health Care Initiative, Melbourne,

Brown, S., Birtwistle, J., Roe, L. and Thompson, C. (1999) The unhealthy lifestyle of people with schizophrenia, *Psychological Medicine,* **29,** 697-701.

Coghlan, R., Lawrence, D., Holman, C. and Jablensky, A. (2001) *Duty of Care: Physical Health in People with Mental Illness - Technical Report*, Centre for Health Services Research, School of Population Health, The University of Western Australia Perth.

Commonwealth Department of Health and Aged Care General Practice Strategic Policy Development Unit (2000) *General Practice in Australia,*, Commonwealth Department of Health and Aged Care Canberra.

Commonwealth Department of Health and Ageing (2003) Guiding Us Forward ~ National Chronic Condition Self-Management Conference ~ Conference Proceedings in *Guiding Us Forward ~ National Chronic Condition Self-Management Conference*, Commonwealth Department of Health and Ageing, Melbourne, 12-14 November 2003.

Connors, C. and Shields, B. (2003) Self Care in Northern Territory - Challenges for Families, Health Staff and Communities in *Guiding Us Forward: National Chronic Condition Self-Management Conference*, Australian Government Department of Health & Ageing, Melbourne,

Corbin, J. M. and Strauss, A. (1988) *Unending Work and Care: Managing Chronic Illness at Home,* Jossey-Bass Inc, San Francisco.

Fries, J. (1980) Aging, natural death, and the compression of morbidity, *New England Journal of Medicine,* **303,** 130-135.

Harvey, P. W. and Battersby, M. W. (2003) The Partners in Health Program and CDSM - Changes in Patient Illness Management Knowledge and Lifestyle Behaviour in the SHC SA Program in *Guiding Us Forward: National Chronic Condition Self-Management Conference*, Australian Government Department of Health and Ageing's Sharing Health Care Initiative, Melbourne,

Heart Support Australia (2004) *Development of a Volunteer Self-Management Training Program for Heart Support Australia - A Report to the Commonwealth Department of Health and Ageing,* Heart Support Australia

Kelly, J., Menzies, D. and Taylor, S. (2003) The Good Life Club: Methodology and study design - a discussion, *Australian Journal of Primary Health,* **9,** 186-191.

Lawn, S., Battersby, M. W., Pols, R., Lawrence, J., Parry, T. and Urakalo, M. (in submission) The Mental Health Expert Patient: The effectiveness of implementing a generic chronic condition self-management program for patients with mental illness.

Lawrence, J., Markwick, M., Williams, A. S., Pols, R. G. and Battersby, M. W. (2004) Flinders University - Research Evidence and Program Successes in *Proceedings from the National*

Chronic Condition Self-Management Conference, Guiding Us Forward held November 2003, Australian Government Department of Health and Ageing's Sharing Health Care Initiative, Melbourne,

Lorig, K. (1993) Self-management of Chronic Illness: a model for the future (self care and older adults), *Generations*, **17,** 11-14.

Lorig, K., Holman, H., Sobel, D., Laurent, D., Gonzalez, V. and Minor, M. (2000) *Living a Healthy Life with Chronic Conditions*, Bull Publishing Company, Colorado.

Lorig, K., Ritter, P., Stewart, A., Sobel, D., William Brown, B., Bandura, A., Gonzalez, V., Laurent, D. and Holman, H. (2001) Chronic Disease Self-Management Program: 2-Year Health Status and Health Care Utilization Outcomes, *Medical Care*, **39,** 1217-1223.

Lorig, K., Sobel, D., Stewart, A., Brown, B., Bandura, A., Ritter, P., Gonzalez, V., Laurent, D. and Holman, H. (1999) Evidence Suggesting that a Chronic Disease Self-Management Program Can Improve Health Status While Reducing Hospitalization: A Randomized Trial, *Medical Care*, **37,** 5-14.

Lorig, K. R. and Holman, H. R. (2003) Self-Management Education: History, Definition, Outcomes, and Mechanisms, *Annals of Behavioral Medicine*, **26,** 1-7.

McAlister, F. A., Lawson, F. M. E., Teo, K. K. and Armstrong, P. W. (2001) A systematic review of randomized trials of disease management programs in heart failure, *The American Journal of Medicine*, **110,** 378-384.

Mobbs, R. and Bell, A. (2003) Pulling It All Together: The Katherine West Health Board Aboriginal Corporation Chronic Disease Self-Management Demonstration Project in *Guiding Us Forward: National Chronic Disease Self-Management Conference*, Australian Government Department of Health & Ageing's Sharing Health Care Initiative, Melbourne, November 2003.

Murray, C. and Lopez, A. (1996) *The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Disease, Injuries and Risk Factors in 1990 and Projected to 2020*, Harvard School of Public Health on behalf of World Health Organisation and the World Bank, Geneva.

National Health Priority Action Council and Palm Consulting Group (2004) Workshop Summary Report in *National Chronic Disease Strategy Workshop*, National Health Priority Action Council,
Palm Consulting Group,, Sydney, 25 June 2004.

National Health Service (2005) Expert Patients Programme, http://www.expertpatients.nhs.uk/index.shtml, Retrieved 12 January 2005.

Osby, U., Correia, N., Brandt, L., Ekbom, A. and Sparen, P. (2000) Time trends in schizophrenia mortality in Stockholm County, Sweden: cohort study, *BMJ,* **321,** 483-484.

Rowett, D., Simmons, S., Cafarella, P. and Frith, P. (2005) Informed Partnerships for Effective Self-Management of Chronic and Complex Lung Diseases, http://som.flinders.edu.au/FUSA/CCTU/COPD%20final%20report%2022_07_05Malcolm%20Battersb.pdf, Retrieved July 2005. Daw Park, South Australia.

Russell, A. and Coulthard, F. (2003) Lessons Learnt, Journey Sheared: Introducing Sustainable Patient Self-Management to Pika Wiya Health Service in *Guiding Us Forward: National Chronic Condition Self-Management Conference*, Australian Government Department of Health and Ageing's Sharing Health Care Initiative, Melbourne, November 2003.

Urakalo, M., Lawrence, J. and Lawn, S. (2004) Noarlunga Chronic Disease Self Management Project : An Approach to Improving the Emotional and Physical Well Being of People Who Experience Chronic Mental Health Problems - Final Report to Health Promotion SA, South Australia Department of Human Services, http://som.flinders.edu.au/FUSA/CCTU/Noarlunga%20Final%201104.pdf, Retrieved June 2005. Noarlunga, South Australia.

Wagner, E. H., Austin, B. T. and Von Korff, M. R. (1996) Organizing Care for Patients with Chronic Illness, *The Milbank Quarterly,* **74,** 511 - 542.

Warren, K., Richardson, V. and Norman, T. (2003) The Whyalla, Port Lincoln and Pika Wiya SHC GP Based Care Planning Model: A Comparison of Three Unique Approaches in *Guiding Us Forward: National Chronic Condition Self-Management Conference*, Australian Government Department of Health and Ageing's Sharing Health Care Initiative, Melbourne, November 2003.

World Health Organisation (1986) Ottawa Charter for Health Promotion in *International Conference on Health Promotion and Canadian Public Health Association*, Ottawa,

World Health Organisation (2002) *Innovative Care for Chronic Conditions: Building Blocks for Action: Global Report*, World Health Organisation Geneva.

World Health Organisation (2004) Why are Chronic Conditions Increasing? The Demographic Transition, http://www.who.int/chronic_conditions/why/en/print.html, Retrieved 30 June 2004. Geneva.