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Australasian Society for HIV Medicine Inc

**Models of Access and
Clinical Service Delivery
for HIV Positive People
Living in Australia**



Models of care for chronic disease

Background paper for the
Models of Access and Clinical Service Delivery Project

**Prepared by
the Australasian Society for HIV Medicine**

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Introduction

In Australia, it is estimated that chronic disease will account for nearly half of all deaths and 80% of disability by 2020. Chronic disease has some features that make precise definitions of the conditions, their impact and solutions to associated problems difficult. As the Australian population ages, chronic disease will have an increasing effect on our health and wellbeing. The National Chronic Disease Strategy states that “Australia’s health system must be able to respond in an appropriate and cost effective way to this challenge. Failure to prevent, detect and treat chronic disease at an optimal stage in its course impacts on affected individuals and their families and carers in terms of pain and suffering, and on the whole Australian community in productivity losses and high health care costs” (National Health Priority Action Council 2006). This paper will provide an introduction to chronic disease in Australia, their prevalence and impact, and some of the jurisdictional, national and international responses to their clinical management – or rather, the management of people with chronic disease. It is a background paper, largely descriptive, with little in the way of analysis or evaluation; this will be provided in the final report. The issues to be considered while looking at this paper are: what are the parallels with HIV in Australia; how can these approaches be tailored to HIV care; what are the barriers to implementing these models for HIV care and how may they be overcome; what is unlikely to be changed and how do we work around this (or not); where are the gaps; what other models might fill them? (See text box 1)

Definitions and data

Chronic diseases are broad ranging in their development, progress and effects. The AIHW (2006) set out features that are likely to be common to many chronic conditions:

- complex causality, with multiple factors leading to their onset
- long development period, some of which may have no symptoms, although acute stages are described
- prolonged course of illness, perhaps leading to other health complications
- associated functional impairment or disability.
- may last indefinitely, generally never cured
- commonest cause of premature mortality and mortality.

This categorisation below is a starting point in understanding both the impact of chronic conditions on individuals and those close to them and the demands on and for a range of health services:

- non-fatal, non-communicable chronic disease (eg arthritis and musculoskeletal disease)
- serious, eventually fatal, non-communicable chronic disease (eg heart failure or cancer)
- persistent communicable diseases (eg HIV/AIDS) (NSW Department of Health 2004).

Studies of self-reported illness describe 77% of Australian adults with at least one “long-term” illness (conditions of varying severity lasting at least 6 months), 95% were over 45 years (AIHW 2006). Co-morbidities were commonly reported, not surprisingly, because they are age-related or causally related. Those with more long-term conditions report their health less positively than those with fewer chronic conditions do.

Australian estimates suggest that chronic conditions contributed to 80% of the total burden of disease (including mental ill health and injury) measured by disability adjusted life years (DALYs) and nearly half of all deaths (AIHW 2006). Chronic conditions also accounted for 1 in 5 hospital admissions, with the elderly being over-represented. The pattern of admission is different for each condition, as are the trends, with admissions, for example for cancer and cardiovascular disease declining and those for diabetes and chronic renal disease increasing. Nearly 50% of deaths in Australia are attributable to chronic disease (excluding depression); and deaths due to chronic disease tend to occur later in life (over 65 years), thus with much higher age-specific mortality rates (AIHW 2006). As survival from particular chronic diseases such as cancer and cardiovascular disease continues to improve, conditions such as dementia and neurological disorders will become more prevalent and have a specific impact on health services needs and provision.

Chronic disease is more prevalent in the marginalised and disadvantaged in the community in particular, the elderly, Indigenous Australians, those who are socially and economically disadvantaged and people with physical and intellectual disabilities or mental illness. This highlights the complexities associated with a response to chronic disease and clearly identifies the presence of co-morbidities in those with a chronic condition.

Until fairly recently the impact of acute illness overshadowed that of chronic disease. The change is due to:

- prevention and management of infectious diseases, so the incidence and prevalence has been markedly reduced
- increase in the prevalence of/exposure to risk factors for chronic disease (smoking, poor diet, sedentary lifestyle etc)
- decrease in fertility and increase in life expectancy, both contributing to the ageing of the Australian population. Natural increases accounted for 2/3 of the national population increase and migration the remainder, however in 2006 this increased to 50% (which has significance for illness and service delivery to CALD populations) AIHW (2008).

The result of this is that systems which have been focused on responding to acute or short-term problems are not well placed to deal with people with long-term, complex and frequently multiple illnesses or disabilities. Chronic conditions are not necessarily unremitting: they can follow varied courses and the need for intervention and care is similarly varied in type and intensity, and must be tailored to the individual. The National Chronic Disease Strategy states “Despite the prevalence of chronic disease and its overwhelming impact on the health system, modern health services remain oriented to acute conditions” (National Health Priority Action Council (NHPAC) 2006).

What are the parallels with HIV in Australia?

How can these approaches be tailored to HIV care?

What are the barriers to implementing these models for HIV care and how may they be overcome?

What is unlikely to be changed and how do we work around this (or not)?

Where are the gaps and what other models might fill them?

Models of Care for chronic disease

Nationally, in the states and territories and internationally there are models developed to address the problems of chronic disease. Australian (Commonwealth, state and territory) models will be presented first, followed by a brief summary of international work.

Australia

The National Chronic Disease Strategy and National Service Improvement Frameworks

The objectives of the National Chronic Disease Strategy (NAPHC 2002) are to:

- prevent or delay the onset of chronic preventable diseases
- reduce the progression of complications of the condition
- maximise the wellbeing and quality of life those with chronic disease and their family and carers
- reduce avoidable hospital admissions and health care procedures
- implement best practice in the prevention, detection and management of chronic disease
- enhance the capacity of the health workforce to meet population demand for chronic disease prevention and care into the future.

The response is presented as a continuum of prevention through aspects of clinical management to end-of life care, within that there are tiered responses to issues of different complexity experienced at different times.

The strategy is predicated on a seven principles:

1. Adopt a population health approach and reduce health inequities
2. Prioritise health promotion and illness prevention
3. Achieve person centred care and optimise self-management
4. Provide the most effective care

5. Facilitate coordinated and integrated multi-disciplined care across services, settings, and sectors
6. Achieve significant and sustainable change
7. Monitor progress.

From these arise 4 key action areas:

- Prevention across the continuum
- Early detection and early treatment
- Integration and continuity of prevention and care
- Self-management.

There are key directions and implementation actions associated with each key action area. Areas for implementation are:

- Building workforce capacity
- Developing strategic partnerships
- Enhancing investment and funding opportunities
- Developing infrastructure and information technology support.

From this strategy, (i) early detection and early treatment, (ii) integration and continuity of prevention and care and (iii) self-management are of particular interest to HIV access and clinical service delivery.

Currently, according to the strategy, there is a focus on general practice which is supported by a multidisciplinary approach where planning, coordination and communication between professionals and the patient are central:

- general practice is being enhanced (enhanced primary care program of Commonwealth)
- ED departments are flagging frequent visitors
- Hospital systems supporting improved discharge procedures
- Multidisciplinary care planning and appropriate team based approaches
- Care coordination with multiple diverse providers
- Information management systems and infrastructure that support continuity of care
- Access and referral pathways.
- Self management support

(i) Early detection and early treatment

Early detection and treatment can result in reductions to mortality, complications and co-morbidity with the ensuing quality of life and economic benefits. These must be carefully balanced against the potential disadvantages such as intrusive and inconvenient interventions (diagnostic and therapeutic) with uncertain outcomes and benefits.

Directions set out in the strategy are:

- to encourage primary health care, particularly general practice, to engage in early intervention, through appropriate screening, use of approaches such as the SNAP[+]

Framework to identify and address the risk factors for chronic disease, and support for self management

- to improve screening and early detection opportunities and uptake for high risk groups, such as older Australians, Aboriginal and Torres Strait Islander peoples, and people who are socio-economically disadvantaged (and people with HIV¹)
- to promote the use of patient registers and recall systems that enable better management for people with and at high risk of chronic disease, including identifying processes to link registers between states and territories
- to investigate emerging evidence for early detection and treatment, and implementation mechanisms including evidence-based guidelines for effective practice
- improve the public's (or target group's) awareness and understanding of the risk factors for chronic disease and opportunities for early detection, particularly among high risk population groups

(ii) Integration and continuity of prevention and care

Future directions outlined in the Strategy are:

- to develop the appropriate level and mix of integrated services across different areas and to have data at the population and service level to enable planning, monitoring and reporting of service use, need and effectiveness
- to develop policy and program support for planned, multidisciplinary, coordinated and integrated services, including flexible funding arrangements
- to strengthen partnerships to support the implementation of comprehensive care, such as the formal general practice networks in Victoria (there may be others now also) and Aboriginal Community Controlled Health Organisations nationally. The barriers presented by difficulties with recruitment and retention and structural organisation divisions are recognised
- to improve service access. There are many factors that affect access geographical, sociocultural, lack of services of workforce difficulties and there is a wide range of responses to these factors driven by organisations, jurisdictions and the Commonwealth. The existence of such a plethora of interventions, of varying success, highlights the struggle to improve access to clinical services
- to ensure quality of care by the use of evidence based guidelines, protocols etc. The National Service Improvement Frameworks have a central role here as they set out detailed standards and plans for chronic disease care
- to ensure that medications are used appropriately. People with chronic conditions frequently use multiple medications with the scope for confusion and errors in dosing. Multidisciplinary approaches to prevention and correction of dosing errors include professional coordination and quality communication between patients and service providers

¹ See ASHM Models of Care resource on clinical assessment of the newly diagnosed individual with HIV (<http://www.ashm.org.au/uploads/Initial%20clinical%20assessment.pdf>)

- to foster workforce skills so that the workforce has expanded skills and roles and providers adopt primarily a “person centred approach”, among other skills.

(iii) Self-management

Self management is a care model where the patient is actively engaged in and takes responsibility their healthcare. This model requires an informed, motivated and skilled patient with very good negotiation and communication skills to see them through the health system in sickness and in health (yes, possibly a bit like a marriage). There are 2 approaches applied to this – the Flinders model, from Flinders University, South Australia (Battersby) which is clinician led and the Stanford model which is patient driven (Lorig). The NCDS reports that evaluations of both these models have limited uptake and success in reaching their goals, so alternative methods need to be developed that particularly are tailored to men and disadvantaged group members. Additionally, under the National Chronic Disease Strategy, health systems are to be re-oriented to support self-management: patients, providers and carers must be trained in roles and responsibilities, with the organisational infrastructure to support and facilitate their defined roles. As self management cannot happen in a vacuum, another consideration is that approaches must be tailored to the needs of the individual and to the community.

The National Chronic Disease Strategy (NHPAC 2006) then reiterates the implementation areas outlined earlier, with its emphasis on building workforce capacity, developing and strengthening strategic partnerships, making progress in with infrastructure and information systems and enhancing investment and funding opportunities.

The National Service Improvement Frameworks (DoHA website) address 5 areas of chronic disease: asthma, cancer, diabetes, heart, stroke and vascular disease and osteoarthritis, rheumatoid arthritis and osteoporosis. The frameworks set out critical intervention points and priority areas for change with regard to each chronic condition. As national documents, they do not provide detail about implementation at a jurisdictional level, or below. The “organising matrix” provided is very general.

National Action Plan on Mental Health

There is a separate Mental Health Strategy that was developed in 1992 and reviewed in 1998 and the National Action Plan on Mental Health, 2006-2011 (COAG 2006) to address the health needs of those affected by mental illness, aspects of this plan relate to the provision of services to those with chronic health conditions and are relevant to individuals with HIV and mental health co-morbidities. Aspects of the mental health action plan are familiar such as: patient centred care, various levels of care and intervention, the important of planning, coordination and communication between health providers, patients and carers.

The National Primary Health Care Strategy

The Commonwealth Department of Health and Ageing are developing a national primary health care strategy, it is to be completed by mid-2009. Its priorities include (from DoHA website):

- better rewarding prevention.
- promoting evidence-based management of chronic disease.
- supporting patients with chronic disease to manage their condition.

- supporting the role GPs play in the health care team.
- addressing the growing need for access to other health professionals, including practice nurses and allied health professionals like physiotherapists and dieticians.
- encouraging a greater focus on multidisciplinary team-based care.

A number of these priorities align themselves very closely with those of the National Chronic Disease Strategy, and with existing models of HIV care. These will need to be considered in the development of an HIV model of care and the management of HIV will need to be considered in the development of the primary health care strategy.

Other programs linked to the primary health care delivery include:

GP Super Clinics (see DoHA website 2008): 31 clinics are planned for across Australia. The model is flexible – to be responsive to the local area needs and situation. The objective is to provide wider and comprehensive primary health care in areas of need. ‘GP Super Clinics will support primary health care providers to adopt models of care focussed on best practice integrated multi-disciplinary team based approaches and efficient and effective use of technology. GP Super Clinics will provide a greater focus on chronic disease prevention and management, as well as economies of scale in delivering high quality health care.’ (DoHA website 2008)

Mental health nurse incentive scheme (DoHA website 2008): This scheme provides a ‘non-MBS incentive payment to community based general practices, private psychiatrist services and other appropriate organisations (such as Divisions of General Practice) who engage mental health nurses to assist in the provision of coordinated clinical care for people with severe mental disorders’.

General Practice After Hours Program provides grants to support the viability of GP after hours services (DoHA website 2008).

The Enhanced Primary Care (EPC) program was introduced to provide more preventive care for older Australians and improve coordination of care for people with chronic conditions and complex care needs. The program provides a framework for a multidisciplinary approach to health. This page provides links to information about the different aspects of the program (see DoHA website 2008).

The *Aged Care Access Initiative*, announced in the 2008-09 Federal Budget, will support primary care provision for aged care residents through:

- A GP incentive payment to encourage GPs to provide increased and continuing services in residential aged care facilities; and
- A payment for Allied Health Professionals for clinical care services in residential aged care facilities, where these services are not covered by Medicare or other government funding arrangements (see DoHA website 2008).

Jurisdictional

NSW Chronic Care Program

There are 3 phases to this program which “seeks to improve the quality of life of people with chronic and complex conditions, their carers and families and prevent unplanned and avoidable hospital admissions” (see NSW Health website 2008). This is a staged procedure with each phase building on the previous one; the first 2 phases are complete. The principles of phase 2 are:

- patient-centred care
- empowerment of patients to participate in their own health care
- equitable, easy and timely access to appropriate and optimal care
- coordinated and integrated care
- supportive organisational, governance and leadership structures
- enhancement of workforce capacity to improve the general and specialised care provided for people with chronic illness
- promotion of a quality and safety framework
- monitoring and evaluation

The strategic directions under phase 2 are to:

- provide governance and leadership
- develop and integrate chronic care policy
- strengthen the focus on patients and carers
- establish a comprehensive self-management approach
- strengthen workforce capacity for chronic care
- develop and refine chronic care information systems
- develop the chronic care funding model
- communicate the successes and lessons learned from the NSW Chronic Care Program
- evaluate and monitor the NSW Chronic Care Program phase two.

Again the areas of interest are to develop strong policy, patient centred care, a continuum of care including self management(for the majority), to improve workforce and support patient management systems. This stage looks at services across the health system (working with general practice, with the community care sector and with a range of health service providers), across the range of care (prevention, through to palliation) and across different ages and populations groups (in particular Indigenous people, those from CALD diverse backgrounds, prisoners and those living in rural and remote areas) to provide responsive and comprehensive services.

A decrease in hospital admissions has been one of the reported benefits of this programs

Victoria

Victoria has developed a number of models to meet the health needs of people with chronic disease.

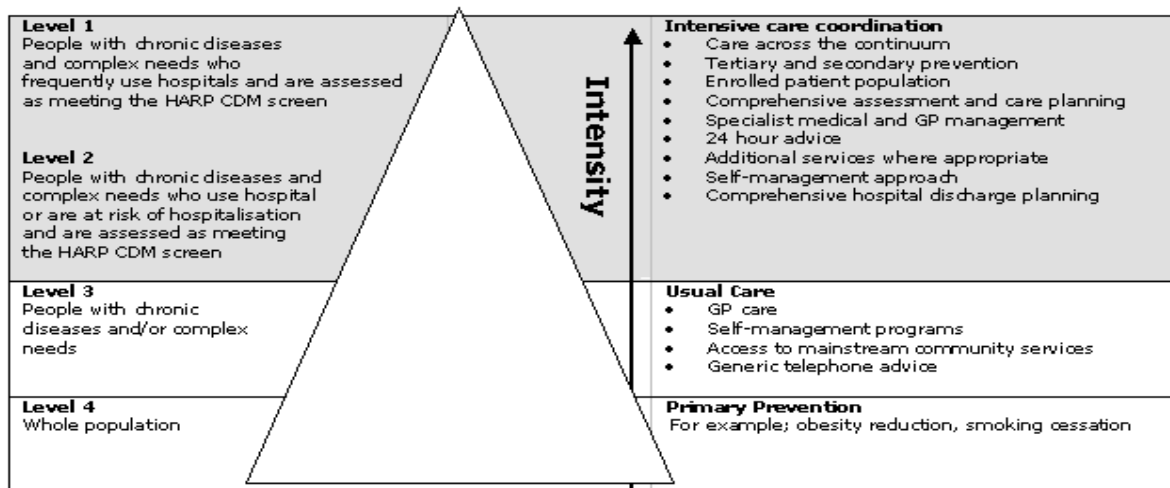
Hospital Admission Risk Program (HARP) Chronic Disease Framework

This was established in 2001 to develop interventions for those who were frequent presenters (and frequently admitted) at hospital to manage their conditions outside the acute care setting. Again the principles were:

- patient centred care
- improved proactive management
- improved continuity of care
- improved responsiveness to patients' needs
- increased health system capacity to respond and manage these health needs.

A hierarchy of need was developed, it is set out in Table 1 below.

Table 1: Levels of chronic and complex care management



As in NSW, this hospital admission program has seen a reduction in admissions with benefits to patients and the health system.

Primary Care Partnerships

The objective of the primary care partnerships is to improve the health and wellbeing of those using primary care services and to reduce avoidable use of hospital, medical and residential services. Priority areas include:

- integrated health promotion
- service coordination
- integrated chronic disease management
- community health plans.

The integrated approach to chronic disease management applies the Wagner model of chronic care management (CCM website) (which are described in more detail further on). This model is used widely in the management of chronic conditions and has been tailored and modified to a variety of situations (Schaefer 2004).

Under the primary care partnerships, health services are being supported to change and re-orient to the demands of chronic disease.

Integrated Cancer Services and Palliative Care Consortia

The Integrated Cancer Services (ICS) and Palliative Care Consortia are examples of models of care that focus on providing integrated services to people with a chronic condition. They deliver a continuum of care of a high quality, close to where people live. The ICS is part of the Cancer Services Framework for Victoria is based on these principles:

- services will be population based
- individuals will have access to the full range of services from prevention, screening, diagnosis, treatment, rehabilitation, supportive care and palliative care
- referral pathways are clearly defined for the range of services required
- care is multidisciplinary and coordinated
- high quality care requires a 'critical mass' of expertise and leadership.

Queensland

The Queensland Chronic Disease Strategy developed after recognition of the need for a move from an acute illness based model of health care. 'The effective management of chronic diseases requires long-term care using the "full spectrum of health care services, from primary (health) care to acute care and health maintenance". This changing model of health service delivery requires greater emphasis on primary prevention, an increased focus on community or home-based services, and the strengthening of partnerships between the community, primary health care providers and the acute care sector' (see QLD website).

The strategy focuses on action at different levels, giving weight to the higher level policy, programming and infrastructural actions. It emphasizes actions addressing prevention of chronic disease. Relevant areas include:

- Positive policy environment and community capacity
- To achieve effective and efficient implementation of the Strategy through appropriate governance structures, partnerships and change-management processes
- Health system organisation: quality health care services

To establish chronic care services delivered to an agreed standard consistently across Queensland, again these are familiar areas:

- Self-management
- To have a Queensland approach to self-management implemented across the state
- Information systems and decision support
- To leverage existing and emerging standardised information management (IM) and information communications technology (ICT) initiatives to provide connectivity, sharing of useful information, access to accurate, timely and reliable information and access to appropriate services to support chronic disease prevention and management
- Delivery system design: workforce

- To support the continued development of the health workforce to achieve and sustain the implementation of chronic disease prevention and management
- Increase workforce capacity and infrastructure for action to reduce population risk factor levels
- Management and the acute-primary health care interface
- To ensure clients with chronic disease receive quality, co-ordinated and integrated multidisciplinary care across services, settings and time, to optimise quality of life for individuals living with chronic disease and their families and carers

Western Australia

WA does not have an overarching chronic disease strategy; rather it addresses particular chronic diseases through the WA health network (see website). A Health Network is a group of interested people and organisations including health professionals, consumers, carer, policy makers and others, coming together to discuss, debate, plan and develop health policy and services across WA. Health Networks in WA resulted from a recommendation by the [Health Reform Implementation Taskforce](#) (WA Department of Health website) to enable 'a new focus across all clinical disciplines toward prevention of illness and injury and maintenance of health'.

The major functions of Health Networks are:

- Planning of services based upon community needs
- Developing innovative healthcare policy
- Setting meaningful targets and monitoring patient outcomes
- Promoting efficiency, effectiveness and safety
- Providing opportunities to develop skills and knowledge, and fostering leadership
- Helping to set priorities across WA Health.

For example, the WA Cancer and Palliative Care Health Network has developed a cancer model of care (2008). In this model, WA recognises factors about prevention and management of cancer that are common to other jurisdictions, and specific to their own, such as rural and remote service provision, cultural needs for care and workforce issues. It presents a multilayered matrix for management, the principles for care are:

Every cancer patient in WA should have access to specialist oncologic supervision in the formulation and delivery of their care

- Cancer care is multidisciplinary and is an integral part of the health care system.
- Cancer care should be evidence based
- Data collection regarding treatment and outcomes is essential to monitor the quality and safety of care
- Clinical research including clinical trials will inform and define best practice
- Education of the community and health care providers regarding cancer prevention strategies in a culturally appropriate manner
- Education and participation of the community and health care providers in established screening programmes in a culturally appropriate manner
- Appropriate and timely referral pathways for people with a possible cancer diagnosis.

- Patients are actively involved in the decision making processes regarding their treatment
- Quality of life issues are integral to the care of a cancer patient.
- The patient and family are the unit of care
- Effective communication with the patient, family and care providers
- Patients and families need to experience coordinated care with smooth and timely transition from one service to another.
- Age appropriate care

As with other approaches to chronic disease, the emphasis is on integration and coordination of a multidisciplinary team centred around the patient provided flexible and staged levels of care. These models are supported by the “Healthy @ Home” program, where multidisciplinary clinical teams support patients through self management, to stay at home and avoid unnecessary hospital admissions (see WA website).

South Australia

The South Australian model (SA DHS 2004) adopts a 4 pronged strategy of

- A clustered approach to chronic disease prevention
- Increased system coordination and integration
- Increased availability for self-management
- Increased primary care capacity for prevention, early detection, early intervention and chronic disease management.

Australian Capital Territory

ACT draft Chronic Diseases Strategy addresses the 4 main areas of the NCDS and included research and surveillance as an additional action area (see ACT Health website).

Northern Territory

The Northern Territory developed a preventable chronic disease (PCD) strategy in 1999 (see NT website). This strategy proposes a three point framework to guide THS activity in this area - prevention, early detection and best practice management. The PCDS approach is innovative in its unremitting commitment to integration – an integrated theoretical framework that encompasses social and medical determinants of health; an integration of client, clinical (individual-level) and public health (population-level) perspectives; an integrated approach to the underlying risk factors for chronic disease; integration at the level of guideline development, care plans and standards of care for both individuals and their families; and an integrated approach across the continuum of need from health to illness, and across the continuum of care between community and hospital services, and between health and other government sectors.

It is implemented through regionally located programs supported by the chronic disease network.

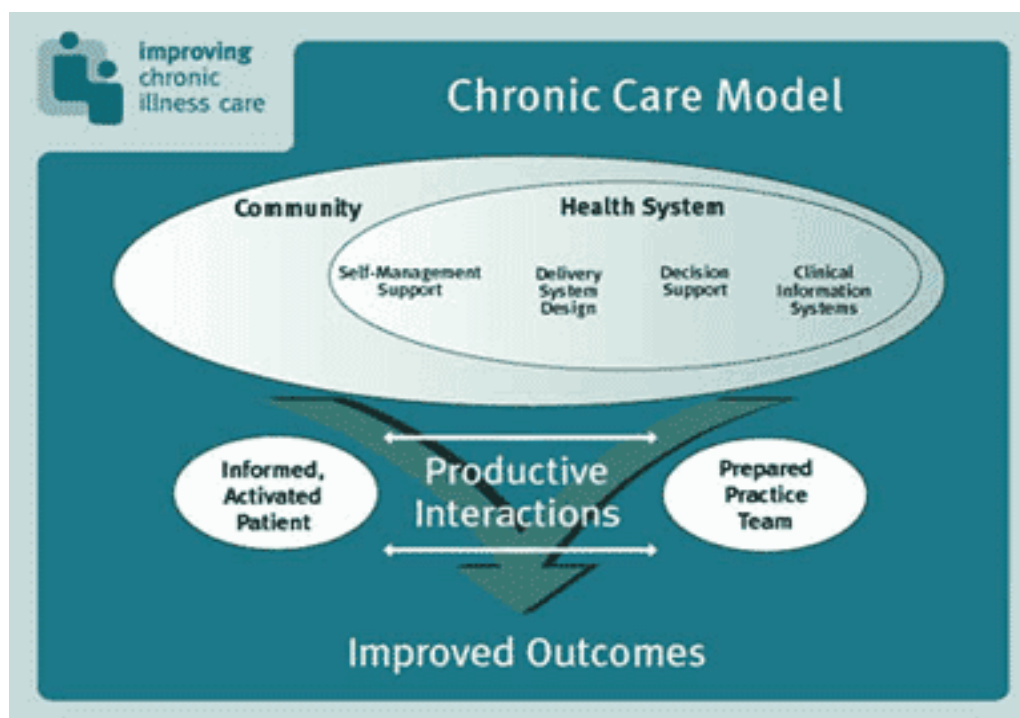
The evaluation of this strategy is of interest because it addresses the remote and culturally diverse populations in the Northern Territory and the competing health needs to address high levels of both chronic and acute illness. This will be studied in a later paper.

There was no chronic disease strategy available for Tasmania, its development was announced in late 2008 (Department of Health and Human Services Tasmania 2008).

International Models of Care for Chronic Disease

The Chronic Care Model (CCM) (Wagner)

This model, developed by Wagner in the 1990's can be applied to a range of chronic conditions, target populations and health care settings.



Wagner EH. Chronic disease management: What will it take to improve care for chronic illness? *Eff Clin Prac* 1998;1(1):2-4.

The key features of the model are:

- self-management
- decision support using evidence based guidelines
- delivery system design to ensure that patients get the correct care delivered in a coordinated fashion by well informed professional health team members
- clinical information system which efficiently support all aspects of care of people with chronic illnesses – quality records, follow-up, recall etc
- organisation of health care – a quality improvement culture of chronic disease service delivery
- community – to develop strategic partnerships and alliances with the wider community whence those with chronic conditions come.

Wagner's CCM has been widely applied, adapted, evaluated and modified to the models of care for chronic disease. In general it appears to have a breadth, robustness and flexibility that makes it effective and widely applicable to many situations, resulting in improved health outcomes and economic benefits (Jeon 2008). However, not all evaluations of aspects of this model have been positive (Jeon 2008, Gillespie 2008). In particular, interventions targeting

patients with low (health) literacy, telephone based “case management” or those with limited funding and inadequate standards and guidelines for implementation resulted in poorer outcomes.

WHO: Innovative care for Chronic Conditions

‘Health care for chronic conditions inherently is different from health care for acute problems, and in this regard, current health care systems worldwide fall remarkably short. Health care systems have not kept pace with the decline in acute health problems and the increase in chronic conditions. In fact, health care systems have not noticeably evolved beyond the conceptual approach used in diagnosing and treating acute conditions. The acute care paradigm is pervasive and now permeates the thinking of decision-makers, health care workers, administrators, and patients. The acute care model drives the organization of care throughout the world even today, even in the most economically developed countries.

To address the rising rates of chronic conditions, an evolution in health care systems is imperative, and they have to advance beyond the acute care model. Acute care will always be necessary (even chronic conditions have acute episodes), but at the same time health care systems must embrace the concept of caring for long-term health problems. Patients, health care organizations, and decision-makers have to recognize the need to expand systems to include new concepts. Decision-makers are instrumental in facilitating a shift in thinking about health care.’ (WHO 2002)

This Building Blocks (WHO 2002) report outlines the key components of a response to chronic conditions globally. The framework relates to prevention and management and focuses on:

- improving the quality of patient interactions
- organization of health care
- community involvement
- policy and financing systems.

This is a necessarily general approach to apply to the vast range of health systems and chronic disease issues seen globally.

Wilson et al (Wilson 2003) write on targeted approaches to reduce inequities in chronic disease in Australia. They define health inequity as “inequalities that are unnecessary, avoidable, unfair and unjust”. The key areas to address to bring about an improvement to these inequities are familiar. They are a) better data across the continuum of care, b) appropriate use of data in decision making, including the use of socioeconomic evidence in developing guidelines, c) greater investment in prevention, particularly for the disadvantaged, d) local and regional initiatives to ensure coordination of all care and e) funding mechanisms that provide better access to non-medical services.

Conclusion

This paper has provided a descriptive introduction to the models of care for chronic disease across Australia and internationally. They are universally agreed on the challenge of responding to the increasing need for services for those with chronic conditions. Recurring themes for responses are that models must be patient centred and the patient and their carers and

'significant others' must be well informed and 'empowered' to have an active role in their health care; the system must be multidisciplinary, composed of different levels of care and care providers for different stages of disease; that high levels of communication and different modes of communication between providers and consumers are essential, this includes systems that are supported by sophisticated, efficient and effective information management infrastructure. The delivery of the models of care must be planned, well coordinated, and they must be integrated into existing (and new) systems. The change required must be managed and supported by policy and legislation and appropriate programs and funding. Workforce issues are a central theme that is fundamental to the success of these models. Appropriate recruitment, training and support of workers is mandatory; a range of strategies (including incentives) addressing the problems inherent in maintaining an appropriate full and trained workforce must be developed.

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