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Community health: the evidence base. A report for the NSW Community Health Review

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Community health: the evidence base. A report for the NSW Community Health Review

Abstract

This is the first report to the 2008 review of community health in New South Wales (NSW) by the Centre for Health Service Development, University of Wollongong. It summarises research on models of community health service delivery in NSW, elsewhere in Australia and internationally and synthesises the evidence on the effectiveness of community health interventions.

Keywords

base, review, community, evidence, nsw, health, report

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Executive Summary

This is a good time to consider the re-vitalisation of community health. The combination of demographic changes with associated changes in the morbidity profile and of burden of disease, increased levels of dependency in older people maintained in the community, and the relative success of aged care assessment and more complex community care alternatives, have created a very different context for community health in 2008, from that existing in previous decades.

The notion of “prevention” is now more complex than expecting only generalist and maintenance level services on their own to prevent residential care admission or to minimise the impact of chronic diseases on the hospital system. A much more sophisticated set of targeted and evidence-based interventions, some specialised and some more broadly focused are available to primary care practitioners today.

Changing the patterns of health care consumption to promote greater equity in health outcomes has been a major debate in the provision of health care in Australia. Compared to earlier eras, consumers now view the health system as belonging to them and are more able to articulate what they value in health care and willing to be co-producers, along with their carers, of opportunities to maintain and regain their health. The recognition of community and consumer values in the development, planning and implementation of population-level interventions and health care services is now part of the development agenda for community health.

Developing the models of care that are most responsive to consumer needs and patterns of service use is one of the challenges for developing primary and community health services in the future. In summary, the following factors are of importance in considering future directions for community health services:

- There is an increasing demand for a greater provision and variety of primary health services.
- The behaviour and attitudes of people have a significant influence on their health. Prevention can be encouraged in counselling situations in the community.
- The environment of infancy and childhood so strongly influences the development of personality and is of such consequence in the evolution of emotional and social disorders, that these matters should receive emphasis within an effective community health and welfare service.
- About one quarter of the total population suffers from some disease condition which will never be cured in the light of current knowledge, and one person in every ten is disabled by these chronic infirmities. Almost one-third of those troubled by chronic disease are under the age of 60. Most have associated psychological and social disabilities. In addition, the incidence of disablement in older people increases to the point where four out of ten of those aged 75 and over are limited in one or more of their daily activities. General practitioners need more assistance than they are getting to provide a realistic choice for patients between institutional care and community care.
- About 2% of the population have some serious mental illness but considerably more have a significant psychological disorder. Large numbers of people have co-existing emotional and physical disorders. They require more support, alleviation, special training, rehabilitation and care in the community than is available at present.
- There are many additional problems in which the medical and social aspects are so interrelated as to require the attention of teams of health and welfare professionals to deal with the social problems that are the basis of symptoms.

These factors clearly point to the continuing and growing requirement for multi-disciplinary teams and action beyond the health sector to integrate the range of skills required in modern primary

care and to the importance of a strong generalist base to extend the range and reach of effective interventions more equitably within the population.

There is very little evidence in the intervention literature on community health *per se*, community health 'models of care' or community health service systems. However, there is a strong evidence base for primary care more broadly, of which community health forms an important part:

'Primary health care was declared the model for global health policy at a 1978 meeting of health ministers and experts from around the world. Primary health care requires a change in socioeconomic status, distribution of resources, a focus on health system development, and emphasis on basic health services. Considered too idealistic and expensive, it was replaced with a disease-focused, selective model. After several years of investment in vertical interventions, preventable diseases remain a major challenge for developing countries. The selective model has not responded adequately to the interrelationship between health and socioeconomic development, and a rethinking of global health policy is urgently needed.' Magnussen, Ehiri and Jolly (2004)

'Robust evidence shows that patient care delivered with a primary care orientation is associated with more effective, equitable, and efficient health services. Countries more oriented to primary care have residents in better health at lower costs. Health is better in U.S. regions that have more primary care physicians, whereas several aspects of health are worse in areas with the greatest supply of specialists. People report better health when their regular source of care performs primary care functions well. In addition to features promoting effectiveness and efficiency, there are fewer disparities in health across population subgroups in primary care-oriented health systems.' Starfield (2008)

There is a focus in the literature on specific interventions provided through primary and community health services. While some of these interventions may be described as 'models of care', some are broad programs and others are targeted clinical and social interventions.

The key message is that, overall, there is a good, and in some cases very strong, evidence-base for the range of services that are typically provided by community health services. A summary by community health stream is included in Table 3 (page 42).

However, the amount of available evidence is sometimes limited and the quality highly varied. Many of the interventions identified may be context specific. There are also holes in the evidence in some places. The absence of evidence is not the same as evidence of ineffectiveness and it cannot be concluded that some currently provided services are ineffective. Rather, the lack of evidence reflects the historic lack of resources for research and evaluation in primary care and community health. This has resulted in only a limited evidence-base in some streams of care, an issue that will need to be addressed in the future.

Our final report draws on the evidence presented in this report in proposing a strategic direction for community health in the future. Although the wider evidence base relating to general practice-primary health care was mostly outside the scope of the review, the evidence in favour of primary care, team approaches and a measure of geographic area responsibility is clear. Effective health systems depend on a strong integrated primary health care system and community health plays a central role in that system.

1 Introduction

This is the first of three reports on the 2008 Review of Community Health in New South Wales (NSW) undertaken by the Centre for Health Service Development (CHSD), University of Wollongong.

The NSW Community Health Review (the Review) is a strategic review that has three major components and eleven terms of reference. The major components are:

1. An audit of the scope of activity and existing investment in community health services undertaken by NSW Health. This audit was completed by NSW Health.
2. Analysis of gaps in current provision of community health services with a focus on service delivery, governance, linkages and referral pathways with other parts of the health system including general practice, other providers of primary care services and acute and population health services.
3. Development of a vision for the future role and operation of a revitalised community health service sector with a focus on core services to be provided by community health services, best buys and areas for investment and disinvestment and a staged pathway for reform.

The purpose of this first report is to summarise research on models of community health service delivery in NSW, elsewhere in Australia and internationally and to synthesise the evidence on the effectiveness of community health interventions.

A compendium report addresses the current *State of Play in NSW*. It describes current clinical and management structures and identifies existing gaps in service provision. While the focus is primarily on services and streams of care provided by NSW Health, in considering the evidence the report also addresses issues such as linkages and referral pathways with general practices and other community based health services and with the acute and population health sectors.

The final report in this series builds on these first two reports. It is strategically focussed and designed to inform future planning and resource allocation decisions in NSW.

2 Methods

2.1 Scope

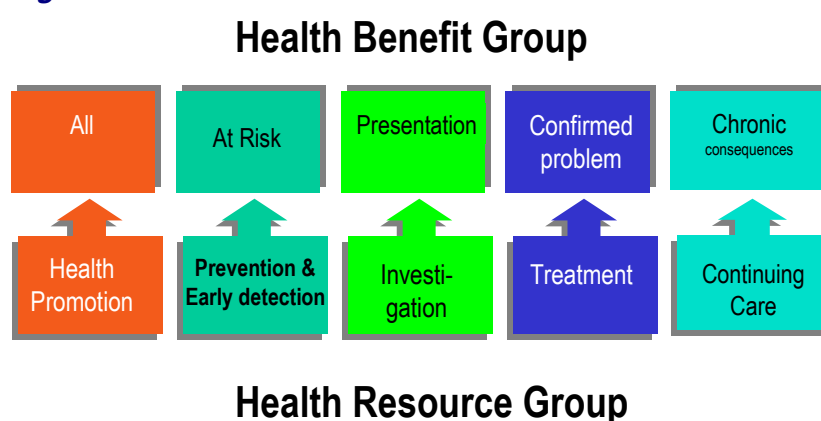
The scope of this literature review is limited to the models of care and services typically provided by government funded and managed community health services. Papers dealing with specifically with General Practice or non-government community health were excluded.

2.2 The Health Benefits Group / Health Resource Group (HBG-HRG) framework

The evidence in this and subsequent reports is summarised using a health care framework or information model initially developed by the UK casemix office (Sanderson and Raftery, 2000) called Health Benefit Groups and Health Resource Groups (Eagar, Garrett and Lin, 2001). It is used to describe components of the health system in which services are conceived for, and delivered to, populations and assists in understanding questions of effectiveness and efficiency and the allocation of resources over the care continuum. This framework is shown in Figure 1.

The starting point in the Health Benefits Group / Health Resource Group (HBG-HRG) framework is the health care needs of a population. Each Health Benefit Group (HBG) is defined as a population group who would potentially benefit from a health service. Health Resource Groups (HRG) are health system responses to population needs. This focus helps to avoid the inherent problems of the health system being conceived solely in terms of services and facilities, rather than the needs and circumstances of the client or patient groups. HRGs describe the services that are required, rather than who delivers those services or the model of care in which such services are delivered.

Figure 1 The HBG/HRG framework



Each community health stream can be represented by a group in the population, e.g. at risk child and family, chronically ill, multicultural etc. The aim of the review is to map people and their resource needs as a matrix, and the overall approach “aims to consider allocative efficiency across the health system rather than trade-offs within programs” (Eagar, Garrett and Lin, 2001, p.192). The framework can highlight the gaps in current knowledge of interventions in each stream across the continuum and suggest investment choices in each HRG based on the evidence about who benefits from evidence based strategies.

2.3 Search strategy

A search protocol guided the literature review. For the historical and policy documentation, a number of key texts and journals were reviewed. For the interventions the research objective was to search the current literature to identify evidence of service delivery models considered best practice for community health and/or primary health care, across the defined service streams (i.e.

Aboriginal health, aged and extended care, child and family health etc). The service streams were generated through the initial project establishment phase and the consultation process and aim to capture the major domains of work for community health staff.

The literature review is targeted and strategic only and while being systematic is not comprehensive. Material has been sourced from the academic and practice (also known as grey) literature and uses the COSI Model to guide the search process. This model consists of three elements: the Core search is the starting point as it is quicker, more precise and usually yields best results; the Standard search moves out into the grey literature and is more time consuming and will probably yield results whilst the Ideal search is the most time consuming, inexact and may possibly produce results. The COSI model shows the trade-off between the time/resources allocated and the expected results from the ideal search of the literature (Bidwell and Jensen, 2004). In this search, priority has been given to core searches and identifying relevant systematic reviews.

Key words initially generated included:

- Community health
- Primary health care
- Service delivery models
- Evidence
- Best practice

MEDLINE MeSH headings were then reviewed to refine the generic search terms:

- Community health services
- Primary health care or primary healthcare
- Evidence-based medicine
- Models, theoretical
- Benchmarking

MEDLINE MeSH headings were also used to develop search terms for each service stream, for example:

- women's health services
 - preconception care
- reproductive health services
 - family planning services
 - maternal health services

Relevant papers were identified by searching the electronic databases: MEDLINE, CINAHL, PsycINFO, Annual Reviews, the Cochrane Library, the Campbell Collaboration, Database of Abstracts of Reviews of Effects (DARE) and Sociological Abstracts. Where time and resources permitted, additional literature was identified through electronic hand searches of journals specific to the service stream topic and reviewing reference lists in recently published work.

Practice literature websites were selectively reviewed to identify relevant policy references as well as evaluation and practice literature. Google Scholar was used (limited to .edu.au, .gov.au and .org.au) to identify additional material. Search strategies have been documented for each defined service stream with citation retrieval criteria specifying only articles published in English, with a focus predominantly from the year 2000 onwards and in peer reviewed journals (where available).

A second round of culling was undertaken based on reading the abstract or executive summary of each paper or report to focus on interventions in community health or primary health care settings.

A template was developed to systematically catalogue each reference and the summaries and synthesis sections were reviewed by multiple team members.

2.3.1 Weighing the evidence

A standardised scheme was adopted for evaluating the evidence on community health and primary care practice and each of the streams for the purposes of this report. This involved refining the scheme used initially in a series projects for the Victorian Department of Human Services (Williams et al., 2006). The evaluation scheme or framework provides an indication of the strength of the evidence, the relevance of the findings to the NSW community health context, and additional information that may be useful in guiding the selection of strategies for developing community health services in the future, namely:

- Is the intervention or model of care well documented?
- Does the intervention or model of care have a sound theoretical and/or empirical basis?
- Has the intervention or model of care been evaluated independently at more than one site?
- Is cost-effectiveness data available?
- Has the intervention been evaluated with Indigenous Australian communities, culturally and linguistically diverse groups, and/or socially disadvantaged families?

The review took a broad approach to evidence and measurement issues. Traditional hierarchies of evidence (which put randomised controlled trials and laboratory experiments at the top) generally do not work for analysing issues concerned with the social determinants of health. The evidence needs to be judged on its consistency and fitness for purpose – that is, does it come from a large number of credible sources and does it convincingly answer the questions asked? The issues of interest included efficiency, health outcomes and effectiveness.

Accordingly, papers were included in the review if the methodology employed in the research met one of the following criteria. These criteria were also useful in weighing the strength of the evidence in each paper:

1. **Well-supported practice** – evaluated with a prospective randomised controlled trial
2. **Supported practice** – evaluated with a control group and reported in a peer-reviewed publication
3. **Promising practice** – evaluated with a comparison group
4. **Acceptable practice** – evaluated with an independent assessment of outcomes, but no comparison group (e.g., pre- and post-testing, post-testing only, or qualitative methods) or historical comparison group (e.g., normative data)
5. **Emerging practice** – evaluated without an independent assessment of outcomes (e.g., formative evaluation or service evaluation conducted by host organisation).

3 Community health and primary health care

3.1 Definitions

The first quote is the current NSW statement of its Primary and Community Health policy (NSW Health, 2006). The second quote is from a recent commentary on the WHO's first global attempt in 1978 to put health equity on the international political agenda (Mahler, 2008), and the third is a quote from a primary care text from the 1990s. The final definition comes from the original NSW community health program documentation (Health Commission of NSW, 1977).

3.1.1 Primary and Community Health

The NSW Health (2006) Integrated Primary and Community Health Policy 2007–2012, (page 1) uses the combined term *'Primary and Community Health'* to describe:

"... the overlapping primary health care and community health sectors and services as a single integrated and cohesive structure. Although the two sectors share many common features, and both are founded on the principles of primary health care, they have differing roles and organisational structures.

Primary health care refers to universally accessible, generalist services (e.g. general practice, community/early childhood nursing services) that address the health needs of individuals, families and communities across the life cycle. Comprehensive primary health care includes early intervention and health promotion, treatment, rehabilitation and ongoing care. For most people, these services are the first point of contact with the health care system. Private practitioners provide the majority of primary health care services.

Community health refers to a range of community based prevention, early intervention, assessment, treatment, health maintenance and continuing care services delivered by a variety of providers. Community health services predominantly operate from a social model of health whereby improvements in health and wellbeing are achieved by directing efforts towards addressing the social and environmental determinants of health. The NSW public health system provides the majority of community health services. The primary and community health sector is one of three sectors that support the NSW health system, together with acute hospital and population health services. The primary and community health sector has overlapping boundaries with, and links consumers to, both the acute and population health sectors."

3.1.2 Primary Health Care

The Alma Ata Declaration at the International Conference on Primary Health Care in 1978 framed primary health care *"not only as a level of care provided by health workers, but a philosophy about community participation in health care"*. The aims were to provide *"education on how to prevent and control local health problems"* and address the *"main health problems in the community, providing promotive, preventive, curative and rehabilitative services accordingly."* (Lin et al. 2007, p.106)

The potential for transformational change was the key concept that was emphasised by Dr Halfdan Mahler, the former Director-General of WHO, when he re-visited the Declaration in his address to the 61st World Health Assembly in April 2008:

"Let me then repeat with awe and admiration, the consensus concept of primary health care as contained in the Declaration of Alma-Ata 1978:

Primary Health Care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and

families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part, both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community.

It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.

Let me also quote from the Declaration of Alma-Ata, that primary health care includes at least: education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs. In my opinion, an admirable summation of key priorities." (Mahler, 2008)

3.1.3 Primary Care

The core components of a system entry point, a place to organise the right model of care and a capacity for continuous monitoring of patients and populations are what sets primary care apart from more specialised models. This is summarised in the key text by Barbara Starfield (1992) *Primary Care: Concept, Evaluation, and Policy*. Oxford University Press, NY (Preface)

"In its most highly developed form, primary care is the point of entry into the health services system and the locus of responsibility for organizing care for patients and populations over time. There is a universally held belief that the substance of primary care is essentially simple. Nothing could be further from the truth."

3.1.4 Community Health

The original Rainbow Books Series, Health Commission of NSW (1977) *Community Health: Book No. 1 General Concepts* predated the WHO model and defined community health as follows:

"Community health services include all the health services delivered to defined communities. Community can mean a specific geographic locality i.e. where people live and work, or a specific population group such as the aged.

Community health services are concerned first with the health needs of populations and then with the individual as a member of the community. The implication is that services must be equally accessible to all individuals and that resolution of many individual problems can best be achieved by changes involving wider social and community groups.

Community health services assume responsibility for the health of their community rather than a limited responsibility for the maintenance of institutional and professional services. The implication is that community health services should continually monitor community needs and that users, non-users and potential users of health services are of equal concern.

A narrower transitional definition which defines community health services as non-institutional services or as preventive services is now widely used. The intention is to focus attention on the stranglehold which institutional and curative services have over health resources and to discourage these services from continuing in the same tradition under the guise of 'community health'."

3.2 Community health in NSW

Community health in NSW, as it was initially designed under the national Community Health Program from 1973, was a public primary health care model that was complementary to the work of primary care as provided by general medical practitioners. Its goals, objectives, strategies and measures were outlined in the Rainbow Books Series of six booklets (Health Commission of NSW, 1977).

Community health was characterised by having seven common goals for its methods of provision; prevention, self-help, participation, integration, area responsibility, accountability and teamwork (Division of Health Services Research, 1975). The community health entry point function was broad and generalist and the goals were translated into organisational objectives to guide practice for:

- Generalist services
- Emotional, social and health related problems
- Services for mothers, babies and children
- Services for the aged and chronically ill.

The seven goals were a unifying framework for a service delivery model that covered the more specific organisational objectives and their outcome indicators, called 'measures'. The framework emphasised the *systemic* focus of the program which was a planned strategy to strengthen and reform primary health care and to do so by building new services delivered through integrated medical, nursing and multi-disciplinary teams.

Primary care (as the mixed public and private first tier of the health system) was strengthened by the advent of community health as a public program that introduced and legitimised social and community alternatives to medical and institutional models of care (Swerissen and Duckett, 2002). The focus of systemic change was on expanding and diversifying public provision. Along with the school dental and hospital development programs, community health was a key part of the "*vigorous expansion of social programs in the first half of the 1970s.*" (Scotton, 1978a, p.1)

The new community health models evolved differently in different states and territories but all implied a close alliance with public health and a localised capacity for '*whole of community*' planning based on its area responsibility goal. So a pre-condition for understanding community health's effectiveness was access to population-level information as well as information about who uses what services in a local area.

The community health planning models were distinct from hospital-oriented planning as they started from a population rather than patient focus and included elements of community control, or at least community responsiveness, as a way of understanding the needs of the population as a whole, including in particular the needs of those entering the service system and non-users. This represents the "*inherent tensions between the need for planning for institutional and provider interests and planning for the needs of the community.*" (Eagar, Garrett and Lin, 2001, p.24)

Community health included specialised services to give the higher need groups and particularly those with high need/low prevalence disorders, an access point to more targeted and expensive treatments. For those with more complex problems the entry point function is designed to give access to specialised assessments and ideally to a suite of effective interventions. Specialist backup needs a measure of vertical integration with hospitals as part of the collective effort of managing demand for, and substitution of alternatives to, hospital based treatment models where those are available.

The reasons why there remains the appearance of a still unresolved debate can be found in the dominant 'crisis' ethos generated by media attention on acute hospital care. With a longer time

perspective it is clear that the same health system dynamics are being played out in NSW now as they were 30 or even 50 years ago. In a 1957 Sydney Morning Herald editorial on ‘the crisis in the hospitals’, there are observations about the *“lamentably unprofessional approach to costing and accounting in most of even the largest of our hospitals”* and the way the demand pressures on the hospital system were described were the same. *“The fact must be faced that at present there is just not enough money being spent to produce an efficient and solvent hospital service.”* (Sydney Morning Herald 1957).

This perspective is elaborated in Section 3.2 where the historical, social and economic factors that drive the current shape of the program are outlined. The longer view illustrates the trade-offs between the efficiency efforts in acute care and the social and population concerns of community health. Along with public health and health promotion, community health shares the goals of reducing inequality and tackling the social determinants of health.

Hospitals and community health services share patients and clients with sub acute and non-acute service needs such as rehabilitation, palliative care, aged care, psychogeriatric, mental health and disability services. The goals of care in hospitals include the spectrum from secondary and tertiary prevention (especially for those termed ‘frequent flyers’), through to the early detection of problems requiring specialised assessment and expensive testing, as well as the joint planning of post acute care across the spectrum from active rehabilitation through to maintenance care and palliation.

It is this mixture of needs that generates requirements across the full spectrum of health resources, for the population groups that can benefit from public primary care services, that leads to the difficulties of articulating a clear vision of community health and primary care in a time of persistent short term crises. The problem has not been in the clarity of definitions, but in the ability of the health system to close the ‘rhetoric-reality’ gap that was first described by Nancy Milio in 1983 in her commentary on the prospects for the national program at the time of the election of the Hawke government (Milio, 1983).

3.3 A brief social history of community health in the NSW context

Community health services in NSW began in 1904 with a home visiting service for mothers and babies.

“The Municipality of Sydney employed Australia’s first child welfare nurse ... to visit personally and instruct mothers of all new born babies in the Sydney area who were not already receiving treatment.” (Health Commission of NSW 1977, Holman 1991)

The first baby health centre was built in 1914. Community health services as sites for health promotion, have been an important part of a public health approach to the control of disease by a focus on prevention - from earlier times as sanitation and hygiene, as part of mass programs of vaccination and the anti-tuberculosis movement from the 1940s to the 1970s.

Secondary prevention and rehabilitation after illness and injury and tertiary prevention through consulting with hospital services for improving community care of the aged and mentally ill have all evolved from the core community health functions. Models of care and access to treatment options have developed along with the growth of specialisation and the application of case management approaches, often funded through national aged care and disability programs. These programs target conditions of advanced age and frailty like dementia and falls risks and they have been supplemented by more recent examples of state-funded community-based programs and campaigns for the prevention of the spread of HIV/AIDS and for reducing the consequences of a range of severe chronic conditions.

Magnussen et al. (2004) articulated the cultural and practical limitations to implementing a primary care policy in the global context which is relevant to current developments in NSW. The comprehensive approach was seen as too idealistic and it had difficulties in competing with more disease-focused, selective models, particularly when day to day management decisions are

dominated by concerns for increasing the efficiency of hospital services. After several years of investment in vertical interventions, preventable diseases remain a major challenge for all health systems, not only in NSW. The contemporary arguments in the international context (see Section 4) are that the selective primary health care model has not responded adequately to the interrelationship between health and socioeconomic development, and *“a rethinking of global health policy is urgently needed”* (Magnussen et al. 2004, Abstract).

3.3.1 Previous community health reviews

The 1976 national Review of the Community Health Program reported that 700 projects had been approved nationally and many more were under consideration. Priority in funding had been given to projects in areas with high unmet needs for health services. The program funded a wide range of mental health projects including halfway houses, day centres, women’s refuges and crisis counselling.

The theme of the first review, repeated in all subsequent reviews was that much had been achieved but that:

“much remains to be done to assist further initiatives, to correct anomalies that have been revealed, to give priority to certain aspects of health care and to continue the development of useful trends in health care delivery” (Hospitals and Health Services Commission, 1976).

The lack of a protective legislative and program framework either nationally or at state level meant community health was left exposed to the wider economic forces. As planning for facilities (beds) took precedence over planning for the needs of the population.

The first round of attrition of the comprehensive model that began in 1977-1981 was driven by the reduction in the Commonwealth share of program funds. They moved from 90% capital and 75% of operating costs to 50% of the program. Then in response to the recommendations of the Jamison Report (Harvey 1981, Milio 1984) community health was consolidated into hospital base grants to the states, meaning there were no longer distinct program funds to manage.

By the time community health was reviewed again nationally in 1986 the effects of the lack of a coherent set of program goals were clear. The review found that a combination of factors including bureaucratic restructuring, cost cutting and vertical integration along medical and specialty lines had taken its toll. The majority of new resources in the health system kept going to support additional acute care beds. The goals for the population (prevention, participation and area responsibility) were increasingly overshadowed by facility planning concerns (new beds) and cost containment (closing hospitals) and the promotion of efficiency measures in hospitals (reducing length of stay) (Australian Community Health Association 1986).

3.3.2 Managing the trade-offs between the needs of the population and the needs of the sick

Two key concepts have shaped the public health system in New South Wales in the past three decades - geographic area responsibility (a concern for population and public health) and efficiency of service provision for the sick, both inside and outside hospitals and acute care. Both these concerns - for the health of the total population and the ability to put together the different models and levels of care, are contributors to the ‘wicked problem’ of service coordination at local levels (Rittel and Webber 1973, Leutz 1999).

Coordination became a dominant theme of health reform from the 1980s onwards as the models of community health service delivery were becoming less population-focused and increasingly oriented towards sharing the burdens that were shifted by shorter stays in acute care. Changes were driven by Medicare Incentive Payments from the mid-1980s for palliative care, day surgery and early discharge. Meanwhile the advent of the Home and Community Care Program in 1985 effectively fragmented community health’s rehabilitation and aged care maintenance functions from community health nursing by that program’s exclusions for palliative care and post acute care

(Adamson and Owen 1992). The net effect was a more fragmented system, with an increasing number of specialised and targeted programs.

3.3.3 Area management and population health

The current concepts of area health management were represented since 1986 in the implementation of Area Health Boards. This longer term historical perspective on area health responsibility is a recurring theme both in the NSW health system, and nationally, and is explored through the consultations in the review that are described in the accompanying report on the *State of Play*.

Area Health Services have two primary purposes as specified in the Health Services Act 1997. One is to provide health care and treatment. The other is to improve the health of the population. This second function implies a population planning approach, where the starting point is the needs of the population rather than the needs of the health services that are provided.

The sequence of amalgamations of areas has resulted in an organisational scale that is inconsistent with a population and area responsibility remit as described in the 1986 enabling legislation. The span of control has exceeded the limits of what is practically manageable, given the geographical distances between facilities and services, the complexity of what is being managed and the diverse interests of the communities being served.

The overall picture that emerges from the history of area management in health is a gradual devolution of responsibility for managing a wider range of both hospital and community based health services for a growing population in continually expanding geographical areas.

3.3.4 The economic and political view

The period from 1973-1980 was discussed in Section 3.3.1. After the election of the Hawke government in 1982 a significant increase in funding was provided through the Medicare Agreements, but the focus was on incentives to improve efficiency in hospital services by piloting models of early discharge, day surgery and palliative care.

The focus of health policy and funding moved to hospital efficiency and waiting list reduction programs, re-setting the goals of the health system as a whole in NSW, including in particular community health. A further stage in this change of emphasis was marked by the political promises on elective surgery waiting lists given in the election speech of 14 March 1995, when Bob Carr made a key election promise to either halve hospital waiting lists, or resign.

The economic pressures and the political responses to those pressures have shaped the development of community health in NSW driven by cost saving strategies, periodically accelerated by political responses to waiting list 'crises' and down-turns in economic cycles, as well as contemporary health policy debates.

In periods of resource scarcity, the pressures to fund acute care and emergency interventions and reduce waiting times means enhancements in these areas come at the expense of longer term strategies to reduce demand. Without a strong policy commitment, over time this inevitably leads to increasing specialisation, a focus on tertiary prevention for the more severe cases of illness that require hospital care, and a relative neglect of the more 'social' models of care and the primary preventive end of the care continuum (Baum, 2008, p.4).

The evidence from the historical perspective suggests the challenge for developing community health in the future will be to strengthen primary care models and get political support for alternative investment strategies to more beds. This implies change in the popular understandings of health issues and the implications of changing demographic and morbidity profiles, to focus on more long term investments.

4 The international context

The World Health Organisation's (WHO) efforts in promoting more balanced models of care with a focus on the social dimensions of health began in 1978 with the publication of the Alma Ata Declaration on Primary Health Care (WHO, 1978).

“It presented a shift in thinking that saw health not merely as a result of biomedical interventions but also an outcome of social determinants. Motivated by the call for social justice, Alma-Ata identified the key principles of equity and community participation supported by health promotion, intersectoral collaboration, and appropriate use of resources.” (Lawn et.al. 2008, p.919)

In 1986 the WHO *Ottawa Charter for Health Promotion* (WHO 1986) built on its primary health care strategy by focusing on system level change. Its action framework covered the goals to build healthy public policy, create supportive environments, strengthen community actions, develop personal skills and reorient health services. The goal of reorienting health services was a further development on the primary care strategy in that it included attention to health research as well as changes in professional education and training. The aim was a change of attitude and organisation of health services, as well as public perceptions, to refocus on models of care that were able to address the total needs of the individual as a whole person.

There is good evidence that current thinking about community health and primary care remains grounded in WHO principles. In launching *The World Health Report 2008*, subtitled *Primary Health Care – Now More Than Ever*, the WHO Director-General, Dr Chan, stated: *“We are, in effect, encouraging countries to go back to the basics... Thirty years of well-monitored experience tell us what works and where we need to head, in rich and poor countries alike.”* This was a response to the conclusion that health care is failing to respond to rising social expectations for health care that is people-centred, fair, affordable and efficient, and the report *“... documents a number of failures and shortcomings that have left the health status of different populations, both within and between countries, dangerously out of balance ... health systems will not naturally gravitate towards greater fairness and efficiency. Deliberate policy decisions are needed. The evidence and arguments set out in the report should help in this task.”* (WHO 2008)

In its press release accompanying the 2008 Report, the WHO argued unambiguously for the increasing relevance of primary health care:

“In calling for a return to primary health care, WHO argues that its values, principles and approaches are more relevant now than ever before. Several findings support this conclusion. As the report notes, inequalities in health outcomes and access to care are much greater today than they were in 1978.

In far too many cases, people who are well-off and generally healthier have the best access to the best care, while the poor are left to fend for themselves. Health care is often delivered according to a model that concentrates on diseases, high technology, and specialist care, with health viewed as a product of biomedical interventions and the power of prevention largely ignored.

Specialists may perform tasks that are better managed by general practitioners, family doctors, or nurses. This contributes to inefficiency, restricts access, and deprives patients of opportunities for comprehensive care. When health is skewed towards specialist care, a broad menu of protective and preventive interventions tends to be lost.

WHO estimates that better use of existing preventive measures could reduce the global burden of disease by as much as 70%.” (WHO 2008)

Recent editions (November 2008) of both *The Lancet* (Lawn et al. 2008) and the *New England Journal of Medicine* have drawn the same conclusions.

“Robust evidence shows that patient care delivered with a primary care orientation is associated with more effective, equitable, and efficient health services. Countries more oriented to primary care have residents in better health at lower costs. Health is better in U.S. regions that have more primary care physicians, whereas several aspects of health are worse in areas with the greatest supply of specialists. People report better health when their regular source of care performs primary care functions well. In addition to features promoting effectiveness and efficiency, there are fewer disparities in health across population subgroups in primary care–oriented health systems.” (Starfield 2008, p.2087).

Although the wider evidence base relating to general practice-primary health care was mostly outside the scope of the review in the NSW context, there is now little serious debate: effective health systems depend on a strong integrated primary health care system and community health services play a central role in that system (McDonald et al. 2006, Powell Davies et al. 2008, Harris et al. 2008).

The sections below summarise contemporary developments in selected other countries. They include material that is summarised, adapted and updated from a paper commissioned by the Community Health Services Reform Project in Queensland in 2007 to review international, national and state/territory initiatives and evidence in relation to new models of community health care (Queensland Health 2007). Some references contained in the original report have been removed in order to simplify the presentation and provide a clear summary. Additional material has been adapted from McDonald et.al. (2006).

4.1 United Kingdom (England)

The UK Labour Government has been implementing health care reform since its election in 1997. In 2007 the new Labour Prime Minister, Gordon Brown announced another stage of reform, the *National Health Service (NHS) Next Stage Review*. This is to build on progress in the reform agenda to date and identify the way forward for the NHS to be clinically-driven, patient-centred and responsive to the needs of local communities. The Final Report of the *NHS Next Stage Review*, called *High Quality Care for All* was presented to Parliament in June 2008 (Darzi 2008).

The drivers for change identified in the *NHS Next Stage Review* included an ageing population, rising rates of obesity and other chronic diseases, and changing consumer expectations. Drivers have also included changes to the way health care is delivered such as advances in high cost medical technology, promotion of integrated care and management of chronic disease, as well as increases in day procedures and a consequent reduction in the need for hospital beds.

Consumer expectations have changed, with an increasing demand for access to local health services after hours. The five key elements of the NHS reforms were the introduction of performance targets, patient choice, funding associated with patient choice, new forms of providers (such as NHS Foundation Trusts and Independent Sector Treatment Centres) and an emphasis on self-management by people living with chronic disease.

The original focus involved employing more doctors and nurses, building infrastructure, changing the governance model and changing the focus of decision making from the Department of Health to local health service providers, particularly General Practitioners (GPs) and their practice teams. Under the latest report the focus shifted to the provision of integrated patient-centred care. There was a move away from a diagnostic and treatment focus to a model of care based on predicting and preventing illness to become more patient-centred and to be primary-care based.

The latest changes mean the NHS is becoming a more locally lead and locally driven service, with GPs being seen as the central service provider of the health system and as both providers and purchasers of care. Through the introduction of Practice-Based Commissioning (PBC) in 2004, GP practices received ‘indicative’ budgets from Primary Care Trusts (PCTs), which allowed them to provide innovative care, develop local care pathways and purchase necessary secondary care for their patients.

GP practices are now expected to improve patients' access to other healthcare professionals and for larger practices to consider safe pathways for patients to see specialists in-house. As part of the focus of the NHS system on preventive and community-based care, GPs are also expected to actively encourage self-managed care for people with chronic disease.

Primary Care Trusts are free-standing statutory NHS bodies with responsibility for delivering health care and health improvements to their local areas and provide the strategic frameworks and business support models for delivery of health care for General Practitioners and their practice teams. In 2007 there were 152 PCTs in England, covering approximately 8,000 GP practices and they received approximately 80 per cent of the NHS budget directly from the Department of Health. PCTs are responsible for understanding the local health needs and for developing commissioning strategies to ensure appropriate services and pathways of care are available locally.

Most Primary Care Trusts also directly provide community health services and across England, PCTs employ about 250,000 staff directly, including district and community nurses, community midwives, health visitors, speech and language therapists and physiotherapists. PCTs integrate family health services and community health care within one organisational structure. At the next level, Strategic Health Authorities (SHAs) monitor the performance and standards of the PCTs. There are currently 10 SHAs in England. The NHS Boards hold the Executive of the PCTs to account to the NHS and the local community.

In undertaking a systematic review of primary health care models, McDonald et al. (2006) stated that as the models of care in the UK were only recently introduced they were unable to find any literature evaluating them at that time. With the pace of change remaining rapid, this is still the case.

In its Final Report of the *NHS Next Stage Review*, Lord Darzi emphasised the inclusiveness of the review process, including 2000 clinical and social care staff, and pointing to problems when change is driven top-down.

"It is for this reason that I chose to make this Review primarily local, led by clinicians and other staff working in the NHS and partner organisations. In my own practice and across the country I have seen that, where change is led by clinicians and based on evidence of improved quality of care, staff who work in the NHS are energised by it and patients and the public more likely to support it." (Darzi 2008, p 13).

The UK also has a network of Children's Trusts that bring together all services for children and young people in an area. These are multi-agency partnerships that operate at the local level and bring together the public, private, community and voluntary sectors. Partners include (but are not limited to) District Councils, Police and Police Authorities, Strategic Health Authorities and Primary Care Trusts, National Offender Management Service (NOMS) Probation Service, Youth Offending Teams and schools.

A Children's Trust is a local area partnership led by the local authority bringing together the key local agencies – some of which are under a statutory "duty to co-operate" – to improve children's well-being through integrated services focused on delivering the five Every Child Matters outcomes (Department of Children, Schools and Families 2008
<http://www.everychildmatters.gov.uk/>).

Statutory guidelines on inter-agency cooperation have recently being updated (<http://www.everychildmatters.gov.uk/resources-and-practice/IG00346/>).

4.2 United Kingdom (Scotland)

The context of reform in Scotland has also focused on primary care but emphasised more strongly the potential for partnerships working locally within and across sectors. The plan for the development of *Community Health Partnerships* was set out in a White Paper (National Health Service Scotland 2003) and in subsequent planning documents called *Partnership for Care and*

Delivering for Health. The model was strengthened in the NHS Reform (Scotland) Act 2004, providing the base for the development of the Community Health Partnerships (CHPs).

CHPs in Scotland were established by NHS Boards as key building blocks in the modernisation of the NHS and joint services, with a role in partnership, integration and service redesign. They provide an opportunity for the partners to work together to improve the lives of the local communities which they serve. The aim is to provide a focus for the integration between primary care and specialist services and with social care to ensure that local population health improvement is the core work of service planning and delivery.

The *CHP Regulations* form the legislative base within which the *Statutory Guidance* is based and these came into effect on 1st October 2004. Subsequently the Scottish Government published the *Better Health, Better Care* action plan, which gives CHPs a key role in shifting the balance of care by improving access, managing demand, reducing unnecessary referrals and providing better community care services.

The Scottish model differs somewhat from the English primary care approach in terms of reinforcing greater local autonomy, addressing the broad determinants of health and giving more explicit attention to partnerships between providers, particularly those in social care.

“Instead of the fragmentation of the market, which characterised the health service for much of the 1990s, we are seeking to bridge the gap between primary and secondary care and between health and social care. In this way, we will enable health and social care professionals to look at the whole picture of care from a patient’s point of view. We believe this is essential for achieving shifts in the balance of care and for developing the new models of care that meet patients’ needs.” (National Health Service Scotland 2003, p.8).

The White Paper rejects a command and control management approach and instead describes ways in which the centre can support staff by giving them the tools and the freedom to redesign services and lead change, in partnership with patients. The centre is also given a role, said to have been neglected in the past, in workforce planning and in ensuring that workforce development is central to health policy.

4.3 New Zealand

The organisation of health and disability support services in New Zealand has undergone a number of reforms over the last decade and a half. In 1993 a quasi-market model (‘purchaser/provider’ model) was introduced, involving increased contracting and competition (McDonald, 2006).

Since 2000 and the release of the *New Zealand Health Strategy*, there has been a move to a more community-oriented model. The current system, implemented through the *New Zealand Public Health and Disability Act 2000*, allowed for the creation of District Health Boards (DHB) designed to move New Zealand to a population based health system. The *Primary Health Care Strategy (2001)* and the *He Korowai Oranga-Māori Health Strategy (2002)* aimed to reduce health inequalities in New Zealand and to improve the overall health outcomes of the whole population.

The New Zealand Health Strategy (2000) is based on seven principles, which are meant to be applied across the health sector and be demonstrated in all strategies and developments. The principles are:

- Acknowledging the special relationship between Māori and the Crown under the Treaty of Waitangi;
- Good health and wellbeing for all New Zealanders throughout their lives; (promotion, prevention, early intervention, continuum of care)
- An improvement in health outcomes of those currently disadvantaged; (equity)

- Collaborative health promotion and disease and injury prevention by all sectors; (promotion, prevention, early intervention, partnerships and collaboration)
- Timely and equitable access for all New Zealanders to a comprehensive range of health and disability services, regardless of ability to pay; (equity, access)
- A high-performing system in which people have confidence; (quality)
- Active involvement of consumers and communities at all levels (partnerships, patient centred care).

Although the contracting system introduced in 1993 resulted in increased accountability for primary health care providers and collaboration between sectors, the purchaser/provider model ultimately proved to be very unpopular (McDonald, 2006). Due to the dissatisfaction with the market-driven model of health care, the Government changed to a new model of care, focussed more on health care that was developed, governed and provided locally.

In the *New Zealand Health Strategy (2000)*, the Government stated it believed improvements in health and consumer satisfaction with the health system were being hampered because of a commercially-focussed health care system. It increased community and consumer participation, as well as delegated responsibility for the provision of health care closer to the consumers via the establishment of regional *District Health Boards* and local *Primary Health Organisations*.

Primary health care is designed to be delivered to New Zealanders according to the Primary Health Care Strategy (2001) and is now a central focus of the New Zealand health care system. It covers a broad range of out-of-hospital services, both public and privately funded. The focus on primary health care aims to improve the health of the people in communities by working with them through health improvement and preventative services, such as health education and counselling, disease prevention and screening.

Primary health care includes first level services such as general practice services (not funded under national insurance), mobile nursing services and community health services targeted especially for certain conditions. For example, maternity, family planning and sexual health services, mental health services and dentistry, or those using particular therapies such as physiotherapy, chiropractic and osteopathy services. Chronic diseases, such as diabetes are seen to be best managed by primary health care services through prevention and early intervention.

Primary Health Organisations (PHOs) are the local health service structures that deliver and coordinate primary health care services to an enrolled population. PHOs are made up of medical clinics, GP practices, family health centres and involve multidisciplinary teams, such as doctors, nurses and other health professionals (such as Maori health workers, health promotion workers, dieticians, pharmacists, physiotherapists, psychologists and midwives). PHOs are based in the community and patients enrol with a PHO of their choice. PHOs vary widely in size and structure and are not-for-profit.

The governance requirements for DHBs and PHOs are set out in the minimum requirements documents covering community, consumer and practitioner/provider involvement in governance arrangements. PHOs were expected to establish their own governance arrangements, suited to the local population. The PHO guidelines state that at a minimum, services will include approaches directed towards improving and maintaining the health of the population, as well as first-line services to restore people's health when they are unwell.

They are required to involve their communities in their governing processes and must demonstrate they are responsive to communities' priorities and needs. They must also show that all their providers and practitioners can influence the organisation's decision-making, rather than one group being dominant. PHOs must be not-for-profit bodies and are required to be fully and openly accountable for all public funds that they receive.

The activities of DHBs are guided by two overarching strategies for the health and disability sector, the *New Zealand Health Strategy (2000)* and the *New Zealand Disability Strategy (2001)*. The statutory objectives of DHBs are outlined in the *New Zealand Public Health and Disability Act (2000)*.

4.4 Canada

Like Australia, Canada has a federal system of government, with health care being the responsibility of both the federal government and the provinces (states) and territories. The federal government, the ten provinces, and the three territories play a role in the health care system in Canada. The federal government is responsible for setting and administering national principles for the health care system through the *Canada Health Act (1948)*; assisting in the funding of provincial/territorial health care services through cash and tax transfers; delivering health care services to specific groups (e.g. First Nations and Inuit and veterans), and providing other health-related functions such as public health and health protection programs and health research.

Canada has a Medicare system that provides access to universal, comprehensive coverage for medically necessary hospital and physician services. Hospital and physician services are administered and delivered by the provincial and territorial (i.e. state or regional) governments, and are provided free of charge. The provincial and territorial governments fund health care services with assistance from the federal (i.e., national) government. The responsibility for First Nations people and Inuit health services is shared by the federal, provincial and territorial governments and Aboriginal organisations. The responsibility for public health is also shared and the Canadian Government sees primary health care as central to the health care system.

The primary drivers for health reform in Canada are the need to reduce costs and the demand by consumers for high quality care. The Canadian Institute for Health Information found that there are two ways to contain costs of health services: to keep people healthy and thereby reducing their need to access the health system; and providing appropriate health and support services for people at the time of their contact with the health system.

In 2000, the Government of Canada established an \$800 million, five-year Primary Health Care Transition Fund (PHCTF) to support the implementation of large-scale Primary Health Care renewal initiatives which would improve access, accountability and integration of services (McDonald et al, 2006). The PHCTF was seen as an important federal mechanism for enhancing primary health care reform across Canada and a key federal lever for the renewal of Canada's health care system overall (Health Canada, 2005). The Fund was established to increase the number of primary health care organisations providing a prescribed set of comprehensive services to the populations they serve; increase the emphasis on health promotion, disease and injury prevention, and chronic diseases management; expand 24- hours-a-day, 7-days-a-week access to essential services; establish multi-disciplinary provider teams within these primary health care organisations; and to facilitate coordination and integration with health services available elsewhere, such as hospitals.

There are three national strategies under the Primary Health Care Transition Fund: the National Strategy on Collaborative Care, the National Primary Health Care Awareness Strategy, and the National Evaluation Strategy. Central to primary health care renewal in Canada has been the implementation of various collaborative care models across Canada.

The National Strategy on Collaborative Care was created to complement and reinforce a move to a more collaborative approach to health care. The Strategy supported national initiatives aimed at addressing the barriers to health care and facilitating approaches to collaborative care within the primary health care sector. The Primary Health Care Transition Fund played a significant role in supporting the provinces and territories' shift toward a more collaborative approach to care through the Provincial-Territorial and Multi-Jurisdictional spending.

Recent reforms in primary health care delivery have included: setting up more community primary health care centres that provide services 24 hours a day, 7 days a week; creating primary health care teams; placing greater emphasis on promoting health, preventing illness and injury, and managing chronic diseases; increasing coordination and integration of comprehensive health services; and improving the work environments of primary health care providers (Health Canada 2007).

4.5 USA

The American health care system is a mixture of private and public providers and funders. In 2004, private insurance paid for 36% of personal health expenditures, private out-of-pocket 15%, federal government 34%, state and local governments 11% and other private funds 4% (United States Health 2007).

Health Maintenance Organisations (HMOs) play a significant role in health care coverage. They are different from other types of private insurance providers in that the HMO pays only for services that are provided to its members via a range of contracted providers. Essentially, they pay for the full range of services that a person should need ('managed care'). They have been described as being similar to the UK National Health System (Crane, 2003; Feacham, 2002) with some significant differences. They do not serve a distinct geographic area, but operate in a competitive environment and they do not cater for the whole population (which may be covered by government schemes such as Medicaid and Medicare).

The Kaiser Permanente example

Kaiser Permanente is one of the oldest and largest Health Maintenance Organisations that have focused on managed care as a way to control demand on services and costs. In total, 10% of members are responsible for 65% of costs that are largely driven by chronic illnesses. It has developed a strategy of managing the care of patients with chronic disease jointly with the patients (Sobel, 2003). It uses the ideas of patient/consumer education and support to allow them to manage the chronic disease by managing the illness, daily activities and roles, and their emotions. Individual medical visits are replaced by group appointments of patients with similar conditions and the use of the internet to provide web-based care and support.

Another important factor in Kaiser's operations is that it is a not for profit organisation. Lawrence (1997) writes that their emphasis on health, rather than profits, has created an environment that encourages good relationships between patients and professional providers.

A report commissioned by the UK National Health System (Matrix Research and Consultancy, 2004) summarises the Kaiser approach to improving care and this is replicated in Table 1.

Table 1 *Features of the Kaiser Permanente model*

	Kaiser approach
Changing the patient and care role	Patient education: material on website, and during hospital stay.
Process redesign	Management of disease by population. Development of integrated care pathways. Reduction in inappropriate referrals to services.
Workforce planning and development	Clarification of roles and responsibilities between primary and secondary care. Development of clinical leaders.
Clinical information systems	Utilisation of 'risk stratification' to ensure appropriate provision for different levels of risk within the population.
Knowledge management	Use of clinical evidence database.
Partnerships within the health economy and community	Development of partnerships between clinicians and managers.

Ham (2003) summarises the lessons from Kaiser Permanente:

"In the current policy context, the main lesson from Kaiser is its ability to minimise the use of acute hospital beds through an integrated approach to service delivery. At the heart of

this approach is a strong focus on the management of people with chronic diseases and the breaking down of barriers between secondary and primary care. Compared with the NHS, more care is delivered in a community setting, and this includes the use of intermediate care, home care and self care by patients. Care in Kaiser is actively planned and managed and this explains its ability to deliver good outcomes with a different pattern of service utilisation to the NHS. Kaiser's model is shaped by the market in which it operates, and by the partnership between the health plan and Permanente physicians."

While the Kaiser Permanente approach has been widely reported as a model for others to follow, some question its cost effectiveness. For example, Feacham (2002) compared Kaiser Permanente with the UK NHS and argues that (after adjustments) the per capita costs were similar to within 10%, and that quality is at least equal in the NHS.

There are good examples of capacity building and change strategies that have been developed in the USA through the Institute for Healthcare Improvement (McCannon et al. 2008; available on www.IHI.org) and applied in the UK, and in particular in Australia to build GP capacity in chronic disease management under the work of Australian Primary Care Collaborative Program (see <http://www.apcc.org.au/>).

5 Developments nationally and in other Australian states

This review is being undertaken at a time when significant initiatives are occurring at a national level. Not only is the next Australian Health Care Agreement (AHCA) under negotiation, there are also a number of national reviews in place. These key developments are summarised in the accompanying *State of Play* report.

Most Australian health jurisdictions have undergone review and subsequent reform of their health systems over the last decade. The Federal and State governments have implemented new policies and frameworks to manage the changing health needs of the population.

“Restructuring is so pervasive, in fact, that observers could be forgiven for thinking it is the only change tool available. In the health sectors of Britain, New Zealand, Canada, the USA and Australia the activity seems virtually continuous. Primarily it consists of regular mergers, altering the responsibilities between central and peripheral bodies, setting up new agencies that trigger domino-like changes to the official responsibilities of other agencies, constantly tweaking organizational charts and re-orienting who reports to whom... The evidence for this making a difference, let alone demonstrably improving productivity or outcomes, is surprisingly slender.” (Braithwaite, Westbrook and Iedema 2005, p.542)

What is becoming increasingly apparent is that the structure and effectiveness of jurisdictional health authorities is now more important and that over time the changes have swung from more to less centralisation and back again, with no clear direction overall.

“All health authorities are being expected to drive an ambitious set of national and local reforms. At the same time, most have now blurred the boundary between policy and service delivery and are devoting significant resources to ‘crisis managing’ their service systems. These same reasons led to decentralisation in previous restructuring cycles.” (Rix, Owen and Eagar, 2005)

A consistent theme in re-structuring has been a significant move to provide care away from acute (hospital inpatient) settings with programs such as Hospital in the Home, hospital avoidance and early discharge, to prevent avoidable hospital admissions and to provide care in the community and in the home, if possible. The key strategic directions of new health policies in Australia have been based on primary health care principles, with each jurisdiction implementing these principles by developing community-based health care policies adapted to their existing health systems and population.

The primary health models of care in Australian jurisdictions have emphasised prevention, early intervention, holistic and integrated care with an increased emphasis on management and self-management of chronic disease. Primary health care encompasses prevention, early intervention and treatment services and rehabilitation, maintenance and continuing care programs (Cranny 2007).

There are numerous examples in Australia of efforts to change practice and build GP capacity that are described under Section 6 of our accompanying *State of Play* report. The National Health and Hospitals Reform Commission (NHHRC) has commissioned discussion papers on possible areas of reform. Seven of these papers deal with primary and community health and are of direct relevance to this review, as is the paper on structural options for the reform of Commonwealth State governance arrangements. There are a further 5 papers that deal with various aspects of prevention and health promotion that are also of relevance to this review plus one paper on public private mix.

As well as issues in national reform, work relevant to this review has been done in chronic disease management under the auspice of the Australian Primary Care Collaboratives Program (APCC) that began as a 3-year, \$14.6 million initiative funded from the Focus on Prevention - Primary Care Providers Working initiative announced in the 2003 – 2004 Australian Government Budget. Further

funding has been granted for Phase 2 of the APCC, being delivered to Divisions and their member practices by the Improvement Foundation Australia.

“The APCC Program will help general practitioners (GPs) and primary health care providers work together to improve patient clinical outcomes, reduce lifestyle risk factors, help maintain good health for those with chronic and complex conditions and promote a culture of quality improvement in primary health care. Ultimately, the APCC Program aims to find better ways to provide primary health care services to patients through shared learning, peer support, training, education and support systems... The Collaboratives methodology, designed by the Institute for Healthcare Improvement in the USA, provides a generic quality improvement model that can be applied to achieve incremental, rapid and locally relevant improvements across a broad range of clinical and practice business issues.” (see <http://www.apcc.org.au/>).

The topics to be addressed in the first phases of the Australian Primary Care Collaboratives Program are Diabetes, the Secondary Prevention of Coronary Heart Disease, and Improved Access to primary care.

5.1 Victoria

Victoria has an established network of community health services, which provide primary and community health care in every local government area. Like all Australian health jurisdictions the Victorian Government has identified the growing pressure of increased demand on their community health services, based on population growth and the ageing population, as well as increased incidence of chronic disease, rising cost of medical technology and increased consumer expectations as significant service delivery challenges.

In 2004, the Victorian Government released its policy *Community Health Services – creating a healthier Victoria* (Department of Human Services, 2004). The Government’s role is seen to be one of leadership in improving health outcomes and reducing health inequalities of local communities throughout Victoria. The policy direction identifies the importance of adopting a benchmarking approach.

The strategic direction of the Victorian policy is to strengthen community health services in their provision of comprehensive primary health care services. The principles for care are: access; quality; equity and targeted services; health and well-being; capacity building; continuity of services; population-based services and planning. The funding investment attached to the policy direction included 120,000 extra GP bulk-billing appointments in areas identified as those where it is difficult to obtain access to a GP.

In 2000, Victoria highlighted the need for service providers to work in partnership by introducing the *Primary Care Partnerships* (PCP) strategy. The strategy aimed to create a primary care service system that would improve outcomes for consumers and reduce preventable use of hospital services through partnership development, service coordination and integrated health promotion. PCPs have focused on building relationships between agencies, service system reform, better coordination of services and an integrated approach to health promotion.

The strategy provided a framework for improving the planning and delivery of primary care services and for ensuring all health care providers work more collaboratively and effectively. There are over 800 organisations involved in 31 PCPs across the state, covering from two to four local government areas each and 19 PCPs in rural areas and nearly all PCPs have community health services and local governments on their executive group.

The *Primary Care Partnerships Strategy* is consistent with many other international, national and State/Territory initiatives, with aims of integration, coordination and improved monitoring systems. The aims of the various technical improvements are to enable community based services to achieve better outcomes for consumers and deliver more integrated community care by improving tools for collecting data and allowing monitoring and evaluation.

The information strategy in Victoria included the development of the *Service Coordination Tool Templates* (SCTT) that collected standardised information at the entry point and used that information for making referrals to community support services. The tools were based on an extensive review of the domains used for screening and assessment at the entry point to services, as well as international evidence (Owen et al. 2001).

The SCTT was designed to be useful for a range of community health, community care and general practice based services with the common aim to:

- Respond to the need of consumers at the point of entry
- Develop an extensive understanding about consumer needs and to identify health promoting opportunities
- Make informed judgements about service options to meet consumer needs and maximise consumer potential, and to assist the consumer to navigate the service system.

An independent evaluation of the strategy was conducted in 2005 (Australian Institute for Primary Care, 2005). It found that, over the five years since PCPs were introduced, local relationships and strategies between agencies, and between PCPs and the Department of Human Services, had developed and consolidated. This had enabled agencies to cooperatively implement new community-based health care initiatives such as health promotion activities and improved care pathways for people with chronic disease, ultimately improving the health of those involved.

Victoria is currently re-developing its primary care strategy in anticipation of detailed negotiations over recommendations in national reform initiatives and discussion papers.

5.2 South Australia

Policy development work and consultations in South Australia (SA) in the *Review of Country Domiciliary Care Services* (in December 2000) highlighted the need for a common entry point for clients and streamlined screening and assessment processes, with screening a discrete and efficient process that eliminates unnecessary assessment and provides more appropriate service responses. Regional consultations strongly recommended assessment reform as a good starting point to achieve these desired outcomes.

Planning suggested a robust Information Technology (IT) and telephony platform was required to maximise efficiency and data flow and the work program recognised the limitations of the existing infrastructure across the regions. The assumption was that through assessment reform an effective service delivery model for community health and home based care could be developed, implemented and evaluated.

The Equity, Responsiveness and Access (ERA) Project was a two year, HACC funded pilot project, developed from recommendations made by the Review of Country Domiciliary Care Services, and in line with other South Australian Department of Human Service (DHS) policy and planning frameworks. The tools used in the pilot work drew heavily on those initially developed for use in Primary Care Partnerships in Victoria, modified to better reflect South Australian needs.

In 2003 the South Australian Government received the *Generational Health Review*, a report on the public health system chaired by John Menadue (South Australia, Department of Human Services, 2003). The report looked forward to the next generation and recommended significant systemic reform in developing a population health approach (including a NSW-style population funding model and governance structures), a focus on primary health care and a whole of government focus on reducing health inequalities.

In the period since the work on screening and assessment and the Generational Health Review, South Australia has developed a model that makes General Practice the centre of their

community-based health care system. In 2006, the South Australian government announced a \$72 million investment in community-based health care, to create ten *GP Plus Health Care Centres* in metropolitan areas and *Local Integrated Health Services* in rural, remote and country areas. The aim of this investment is to prevent illness and will include a focus on improving care for patients with chronic disease and providing outreach to adolescents with mental illness and substance abuse issues (Queensland Health 2007).

The *GP Plus Centres* will also coordinate health promoting activities, be a community resource for self-management groups and may provide teaching and training for health professionals (Australian Health Ministers 2007).

5.3 Tasmania

Tasmania released *Future Health: Tasmania's Health Plan* in May 2007. The Department of Health and Human Services committed to ensuring that Tasmania's health services will be accessible as close as possible to where people live, providing services which can be delivered safely, effectively and at an acceptable cost and appropriate to community needs. Health services will be client and family focused; integrated through effective service coordination and partnerships between providers; and designed for sustainability. The new plan will implement the Richardson Report (Richardson 2004) recommendations on hospitals which included the development of dedicated and general service centres and a greater focus on community-based models of care.

Tasmania has 23 community-based health centres which provide non-inpatient services including counselling and support, health promotion, medical, nursing and allied health services and accommodation and meeting spaces for visiting services including housing, disability, and family and child health services. Tasmania's community-based health care also includes specific primary health services including Aged Care Assessment Teams; Community Equipment Scheme; Community Options Service; Community Rehabilitation Services; Community Therapy Services (Physiotherapy, Speech Pathology, Occupational Therapy and Podiatry); Continence Services; and Health Promotion Activities may be provided at a Community Health Centre or Rural Inpatient Facility or as a visiting service across an entire region.

Tasmania will be establishing a tiered service delivery model which will include new integrated care centres that provide a range of health services working in partnership in a coordinated manner, regardless of which organisation funds or provides them. Integrated care centres will be designed to provide greater certainty of access for the community as they will have clearly defined core business. The centres will operate under a philosophy that is less interventional and oriented towards care in the community.

The service model for Primary Health sites in Tasmania will be a new three-tiered model. The sites have been developed based on population trends and levels of community need; distance from other services; and sustainability considerations, such as cost and workforce availability. Tier 1 sites will provide core primary health and community care services within a local community. They reflect the increasing emphasis on community and home-based care and the provision of these services through an integrated team approach.

Tier 2 sites will operate rural inpatient services (subacute beds) in addition to their primary health and community care services. Tier 3 sites will provide extended primary health services with significant outreach across the network and a stronger representation of acute services including integrated care centres developed in association with the Acute Health Services.

The Department of Health and Human Services is currently examining alternative service models in conjunction with local communities to best meet their needs. Examples of services that could be part of alternative local service models are individualised packages of care for older people to enable them to remain in their own homes (both post-acute and community care); more allied health services as an outreach; maintenance of general practice, additional community nursing

and on site nurse clinics (especially for chronic disease treatment, including diabetes); and an increased focus on health promotion and healthy lifestyle activities.

5.4 *Western Australia*

In 2004, the Western Australia (WA) Health Reform Committee released the *Reid Review*, with recommendations to improve the Western Australian public health system. Based on these recommendations, the WA Department of Health identified six priority areas to set the strategic direction for public health: Healthy Workforce, Healthy Hospitals, Healthy Partnerships, Healthy Communities, Healthy Resources and Healthy Leadership.

Healthy@Home is WA Health's community-based health care services (also called ambulatory care) and is managed out of the acute setting, but is provided in the community. This priority is aimed at helping people manage their health in the community and care is provided at the patient's home, in the community or in another setting such as a doctor's clinic. The services are aimed at preventing unnecessary hospital admissions and enabling safe early discharge from hospital.

The *Healthy@Home* health care teams are multidisciplinary and include doctors, specialists and allied health professionals. Services include a Chronic Disease Service (for people with Diabetes, Chronic Obstructive Pulmonary Disease or Chronic Heart Failure); a Community Physiotherapy Service; Hospital in the Home services; Telehealth; and WoundsWest (a wound management program).

Western Australia's community health services are now focussed on child and family health, with the reorientation of community health services in Western Australia placing emphasis on the 'Birth to Age Two Years' population group and their families. The Child and Community Health branch is part of the Child, Community and Primary Health Care Directorate, Department of Health. The branch is responsible for the strategic policy and service direction which guides regional community health services.

The reorientation has occurred in line with international and national recognition that the "Early Years" is an important period in which to influence potential health outcomes. The future directions of Community Health in WA are underpinned by the principles of the *New Vision Community Health Services for the Future Policy Framework*, with a focus on prevention and early intervention.

The core functions of the Child and Community Health branch include: working at the community health interface; community development and capacity building; enhancing and re-orientating the health system to focus on health promotion and prevention; focusing on the importance of the early life and life course determinants; focusing on the determinants of health and health inequalities; and ensuring universality of access to health and other services (Queensland Health, 2007).

In WA the Community and Primary Health Care Directorate of the Department of Health also has a Primary Health Care branch, which was established to strategically address issues across the primary health sector. It does this through Primary Health Partnerships (PHPs), a Bilateral Agreement in the Area of Primary Health and Community Care, the development of integrated programs, building information technology and management systems and developing commonwealth funding proposals. The PHPs are voluntary alliances between Population Health Services and Divisions of General Practice to identify common priorities and strategies to achieve better health outcomes for members of the community.

The *Bilateral Agreement in the Area of Primary Health and Community Care* is used to provide a framework for Commonwealth/State cooperation in areas of mutual interest in primary health and community care and identifies joint priorities and is an agreement to pursue a number of projects. The integrated programs focus on improving communication and service delivery between community health services and general practice, particularly in the area of chronic disease and the

Information Technology/Information Management (IM) initiatives are attempting to build knowledge, policy and strategies to enable the transfer of information between the acute care, primary health care and community care sectors.

5.5 Queensland

The number of recent reviews in Queensland Health is considerable, including in particular the Community Health Services Reform Project, which has suspended its detailed development activities in anticipation of the more fluid national environment and the inherent uncertainties about what direction the Commonwealth will recommend. Reviews have been undertaken for the *Queensland Health Action Plan - Building a better health service for Queensland*, the *Queensland Health System Review - Final Report* (Forster Review), the *Queensland Statewide Health Service Plan 2007-2012*, the *Queensland Health Hubs & Precincts Service Development Framework* and a scan of Queensland Health Program area policies (Cranny et al. 2007).

As part of a reform strategy from 2004-2006, including both community health and community care, Queensland Health commissioned the Ongoing Needs Identification (ONI) screening tool, designed to prompt timely and appropriate service delivery, referral and/or further assessment based on the issues and needs that are identified for each person. This tool has been implemented state wide in a comprehensive strategy including training and support, and it is designed to be used in a range of primary health care programs and settings (Queensland Health, 2003).

The aim was for the tool to be used by a range of service providers to help them identify the needs of a range of population groups. The ONI is designed for use in community services such as home support and nursing care, and can also be useful for discharge planners, GPs, aged care assessment and community health services.

There are multiple uses for the data items and they can be combined in different ways to prompt further action. For example the information collected by the suite of profiles contained in the ONI can be used to establish a consumer's priority rating category, and to describe situations where alerts may need to be raised. The information can also be used to establish a care plan and is a sound basis to inform a multi-agency service coordination plan. The tools are designed for ongoing use.

A key issue for government-funded community and primary health care highlighted in all reviews and projects has been the definition of their core business and the need to identify the range of health care services (including essential services) provided for defined populations.

There is a recognition that government-funded health systems cannot be all things to all people and that there are many key non-government and private health providers within the health system that need to work together to provide health care. Another key element in Queensland is pressure for the workforce to adapt in the face of decreasing numbers of skilled professionals and changing models of care.

As in all states there is also an increased emphasis on the use of multidisciplinary teams to respond to the new focus on patient-centred care, to ensure an integrated health care system and smooth journey for patients through the health system.

5.6 Northern Territory

The Department of Health and Families was formed on 1 July 2008 bringing together the former Department of Health and Community Services and a range of Northern Territory (NT) Government youth and family-related services. In the Territory there are a number of factors that have exacerbated funding and recruitment issues in community health including the costs associated with a larger Aboriginal population in very poor health, the fact that the Aboriginal

population is increasing as a proportion of the NT population and the distribution of a significant proportion of the NT population across remote areas.

These concerns have generated work, supported by the Commonwealth, on coordinated care and primary care access programs in remote areas, such as Katherine West Health Board (KWHB), which is based on the philosophy of Aboriginal community control. The KWHB was first established to implement the Katherine West Coordinated Care Trial, covering the communities west of Katherine to the NT/WA border. The model includes the pooling of funds from State/Territory and Commonwealth Governments and the development of 'care plans' for individuals with multiple co-existing morbidities. Katherine West Health Board has a Regional Board of members consisting of representatives residing within the region. <http://www.kwhb.com.au/>

Zhao et al. (2006) report on a study of the cost of providing primary health care to remote Aboriginal communities in the Northern Territory for a number of common conditions. These conditions are the metabolic syndrome related diseases (hypertension, diabetes, ischaemic heart disease and renal disease), chronic lung disease, well children under five years of age, and antenatal care. The aim of the project was to inform the development of proposed Medicare items that will improve access for Aboriginal populations in remote areas to mainstream primary health care funding. The average cost of providing these primary care services in a remote area was three times the cost of the MBS benefit.

5.7 Australian Capital Territory

Community Health as part of the Australian Capital Territory (ACT) Department of Health, offers a range of community and at home support and treatment services to people who have chronic conditions or who have recently been discharged from hospital and have continuing support needs. The Community Rehabilitation Team provides comprehensive assessments and treatment for people who require ongoing rehabilitation while living at home.

Rapid Assessment of the Deteriorating Aged at Risk (RADAR) is a rapid response program to support older people in the community, when they are becoming unwell and their own GP requires assistance with medical management. The goal of the program is to provide an older person with a rapid medical intervention to prevent a subsequent hospital admission.

The ACT Department of Disability, Housing and Community Services has responsibility for a wide range of human services functions in the ACT, including multicultural affairs, community services, older people, women, public and community housing services and policy, children, youth and family support services and policy, disability policy and services, therapy services, Child and Family Centres, the ACT Government Concessions Program, homelessness, community engagement, Aboriginal and Torres Strait Islander Affairs, and community disaster recovery.

5.8 Conclusion

From the onset, community health services were meant to have a bias towards social models, local level integration and an 'up stream' focus on prevention as the first goal. The emphasis was on linkages with public health and health promotion, and first contact care. The entry point function was expected to be broad enough to support early detection and prevention and referral on for further investigation. The goals required management skilled in promoting horizontal forms of integration to support teamwork and role delineation between professionals and service types within a Centre and coordination with a range of social programs for supporting common clients. At the population level, the goal of area-based responsibility for the health of a population implied a capacity for planning for the whole of the community.

Reforms and initiatives in all states have moved in this direction of a more or less common model, albeit with variations in emphases between jurisdictions. Most states are awaiting the arrival of key documents setting out clearer directions in national goals for community health and primary care.

As the accompanying 'State of Play' highlights, this review is being undertaken against a very fluid environment at the national level. The key aspects of the next Australian Health Care Agreement (AHCA) are expected to be agreed at around the same time as our final report in December 2008, with the results of the three national reviews/strategies expected in mid 2009. The net result is that proposals in our final report will need to be considered in the context of subsequent recommendations and commitments made at a national level.

6 Themes from the literature

The literature has been explored from two perspectives. Sections 3 through 5 of this report focus on some of the history of how we got to where we are in 2008, including the “big picture” issues and the international and national context for community health service delivery. Section 7 synthesises the evidence for community health interventions or “best buys” as they apply to twenty commonly delivered community health service streams. This evidence comes from academic, policy and service evaluation literature and is informed by documented examples of best practice gathered during the consultation process. More detail on this evidence is included as Attachment 1.

Several strategic themes have emerged from this literature that inform our thinking about goals and the most effective models of care to achieve them, as well as future planning and resource allocation decisions in community health.

6.1 Value for money

A recurring theme in both the academic and practice literature is the rising cost of health care and the need to achieve value for money. There is a growing realisation that the ageing of the population, increasing technology-related costs and higher community expectations will continue to challenge the capacity of health systems internationally.

This has been well recognised in the recent NSW Audit Office review of out of hospital care:

“Unless alternatives are developed, NSW Health estimates it will be necessary to open at least 300 new beds per annum to keep up with the predicted growth in demand. The implications are severe: in 1971-72 health expenditure represented 14.6 per cent of the total NSW budget, but by 2007-08 this had increased to around 28 per cent. At this rate, funding for health will consume the entire State budget by 2033.” (NSW Audit Office 2008, p.2)

Nevertheless, much of the effort to reduce or contain costs until recently has been on technical, or productive, efficiency. Technical efficiency is the maximisation of service outputs with the use of minimal inputs. All other things being equal, the most technically efficient service produces the required output at the required quality at the lowest cost. Episode funding, such as that being introduced in NSW hospitals, is an example of a system designed to increase technical efficiency.

The limits of technical efficiency have been well recognised. There is little point producing an output at the cheapest possible cost if that output is not required. Indeed, as the Audit Office above illustrates, it is now widely recognised that increasing technical efficiency alone will not be sufficient to deal with the issues surrounding the increasing costs of health care.

Accordingly, there is a growing literature on allocative efficiency, or the maximisation of the health of the community through ensuring an appropriate distribution of health benefits. All other things being equal, allocative efficiency is achieved by providing the best mix of outputs to meet the health needs of the population. This will typically involve judgements about the need to disinvest in some services and increase investment in others.

The move towards more out of hospital care is an example of the increasing focus on allocative efficiency as illustrated by these comments from the NSW Audit Office:

“In many jurisdictions out of hospital care is being used as an alternative way of responding to increasing demand. International evidence shows that these programs provide good outcomes for patients, reducing the number of times they need to go to hospital and the number of days they need to stay there.” (NSW Audit Office 2008, p.2)

“Area Health Services and hospitals have developed programs which can provide clinical outcomes as good for patients as in-hospital care and can reduce the time they spend in hospital. They have operated for several years and show considerable potential. NSW Health has data to show that costs for out of hospital programs are lower than in-hospital care. However, some of the data are several years old, and some include only a fraction of the types of patients and conditions which the programs are treating. Hence costs may not reflect the way that programs currently operate. While patients achieve good health outcomes, we are concerned that NSW Health needs more consistent measures of the quality of care it provides. NSW Health needs to demonstrate that expanding its out of hospital initiatives is one of the practical alternatives to help meet growing demand. It needs to identify the number of patients who can potentially be treated out of hospital, and plan for securing the necessary resources and implementing significant changes.” (NSW Audit Office 2008, p.3)

That said, allocative efficiency is more than just the optimum mix of services to meet the need for health care today. It is also about the optimum mix of services to meet the need for health care into the future. And this is the fundamental economic argument for investment in prevention and early intervention.

There is also a growing literature on dynamic efficiency. Dynamic efficiency refers to the adaptability of the system over time. A health service or building that can be adapted over time to meet changing needs is more dynamically efficient than one that cannot. Although initially considered in the context of capital works (see, for example, NSW Health guideline GL2008_013 on the economic appraisal of capital works), the concept of dynamic efficiency is being increasingly applied to the health workforce (e.g., task substitution) and to models of care.

The future of community health in NSW is critically linked to the need for the NSW health system to be as efficient as possible, from a technical, allocative and dynamic perspective. This issue is at the core of the current review.

6.2 Social determinants of health

A consistent theme in the literature that is closely related to a population health approach is the need for multi-sectoral action to offset disadvantage brought about by exposure to social factors related to health. This is expressed at the level of policy, health promotion and population health, and to a lesser extent in the practice literature around primary health interventions. Social determinants are part of primary health care strategies, and the social model became a focus of health promotion activity under the WHO's Ottawa Charter (WHO 1986).

The Commission on Social Determinants of Health (CSDH) is the current manifestation of this approach, represented by a global network of policy makers, researchers and civil society organisations brought together by the World Health Organisation to give support in tackling the social causes of poor health and avoidable health inequalities. The CSDH was set up in March 2005 to bring together evidence on what can be done to achieve better and more fairly distributed health worldwide, and to promote a global movement to achieve this. The chair of the Commission, Sir Michael Marmot has a long history of research involvement in these issues including publishing the accepted compendium of relevant evidence (Marmot and Wilkinson, 2006).

The reflection of this theme in the literature is not only from international sources. It also includes contemporary commentaries and policy statements from NSW and other states as well as national reform commentaries in the National Health and Hospitals Reform Commission and the National Preventative Health Taskforce. Recommendations to act on the social determinants of health are prominent in current primary and community health policy documents, where the focus is on community-based strategies in the areas of health promotion, chronic disease management and mental health.

“NSW Health recognises that efforts to address ill health and health inequities cannot succeed unless the social determinants of health are also addressed. To do so, NSW Health must work effectively in partnerships with a broad range of other government and non-government agencies from beyond the health system.” (NSW Department of Health, 2006, p.10)

These goals help to focus effort on improving health outcomes for those disadvantaged by culture, race, rurality, remoteness and poverty. The challenge emerging from this theme is the same as that for population health – matching the policy direction with resources when the reality of service and financial demands has shifted the balance of effort in planning and resource allocation towards managing the continuing and recurring crises in hospital care.

6.3 Demographic changes

Community health and care is very different now compared to how it was in the 1980s. This is a result of the growth of services in the community that are substitutable for lower levels of residential care (the various programs for case management and care packages), the health status of frail older people living in the community and the broader service context. Larger numbers of older people with higher levels of functional dependency are being managed at home, and the growth of a large number of programs including support for carers, has raised community expectations that this direction will continue.

There is now increased activity through the Australian Government’s community care reform agenda. The broader community care service context is expected to change to accommodate the reality of these higher levels of dependency in the community, and to come to terms with the most recent evidence on effective interventions (Eagar et al. 2007) to address the higher levels of need of care recipients and their carers.

The policy direction behind the growth of community based services has been driven by a mixture of social, health and economic goals. The rationale is to delay or prevent functional impairment and subsequent nursing home admissions by primary prevention (e.g. immunisation and exercise), secondary prevention (e.g. detection of untreated problems), and tertiary prevention (e.g. improvement of medication use). *“However, the value of home visitation programs is controversial”* (Stuck et. al. 2002, p.1022), in the sense that basic-level services are not sufficient to meet the needs of people in the community who are at risk of acute hospital admission or residential care placement.

Policy has been shaped in part by an important idea that was promoted through work on the ‘compression of morbidity’ hypothesis (Fries 1980). This theory promoted the value of preventive interventions for older people and raised the possibility of reducing cumulative lifetime morbidity. Since chronic illness and disability usually occur in late life, the theory suggested that cumulative lifetime disability could be reduced if primary prevention measures postponed the onset of chronic illness, while decreases in health risks may also increase the average age at death.

“The hypothesis predicts that the age at the time of initial disability will increase more than the gain in longevity, resulting in fewer years of disability and a lower level of cumulative lifetime disability. There is some controversy in this hypothesis with some contending that healthier lifestyles may actually increase morbidity (and health expenditures) late in life by increasing the numbers of years with chronic illness and disability.” (Binns, 2007 p.270)

6.4 Chronic disease

The current and future pressures on the health system are confirmed in the recent publication of the Australian Institute of Health & Welfare (AIHW) on the burden of disease and injury in Australia in 2003, which stated:

“The rate of disability will actually decline in most age groups, except for those 80 years and over, where it is expected to increase and thereby offset some of the gains for younger

age groups. The growing rate of disability in the oldest age group mostly comes from expected increases in diabetes and neurological conditions.” (Begg et al. 2007, p.8)

The most relevant example of the increased burdens of disease from increased longevity is associated with dementia, as described by the AIHW.

“Because Australia’s population is ageing, there has been growing recognition that dementia represents a significant challenge to health, aged care and social policy. This report estimates that the number of people with dementia will grow from over 175,000 in 2003 to almost 465,000 in 2031, assuming the continuation of current dementia age-specific prevalence rates” (Australian Institute of Health & Welfare, 2006, p.xii)

The increase in lifespan has not been matched by an extension of health, and the extra years are spent with disability, disease and dementia, suggesting that the idea of the ‘compression of morbidity’ is turning out to be overly optimistic. The prevalence of degenerative disease with age is leading to an expansion of morbidity, not a compression. It is apparent that in social policy terms, the combination of changing the balance of care and the rising levels of dependency and disability in the community, means that demand for higher levels of home-based support is increasing.

The AIHW burden of disease study drew out the obvious implications for services:

“Ageing of Australia’s population will result in increasing numbers of people with disability from diseases more common in older ages such as dementia, Parkinson’s disease, hearing and vision loss, and osteoarthritis. This will increase demand for services in the home, community care, residential aged care and palliative care sectors.” (Begg et. al. 2007, p. 8)

Chronic disease management will increasingly consume more health resources. This was recognised in the recent “Review of the Framework for Performance Improvement in Health in NSW” by the Independent Pricing and Regulatory Tribunal (IPART, 2008).

Chronic diseases are best managed by systems of care that are integrated, that emphasise prevention, and that rely on a greater degree of self management by the patient and/or carer. The ageing of Australia’s population and our improved longevity is leading to more people with chronic disease.

“The impact of increasing disability from these diseases is likely to be significant and will be felt in the home and community care sectors before it is felt in the residential aged care and palliative care sectors. While future research into prevention and treatment may yield unexpected results, relevant stakeholders should be planning for growth in the number of elderly people requiring appropriate services in each of these care settings.” (Begg et al. 2007, p.130)

6.5 Changing community values about health and health care

Change in the way health care is viewed by planners, providers and consumers has largely been based on changes in models of understanding of the determinants of health and illness and changing patterns of mortality and morbidity (Baum, 2008, p. 4). Changing community values about health and health care has seen the emergence of a greater focus on the promotion of wellbeing, prevention of ill health and intervention in the early stages of disease. The development of frameworks focusing on specific health priorities and conditions has drawn attention to questions of equity of access and geographic factors in disadvantage and outlines what health care consumers should expect to be provided through the Australian health care system.

Health consumerism has also placed external pressures for change on the health care system in conjunction with internal pressures for change. Health consumerism advocates patient involvement in their health care decisions under a model that encourages empowerment through information transfer of knowledge of basic organ function, the processes of chronic disease, and the beginnings of how to best prevent these diseases (Robinson, 2005). Consumers want their rights and responsibilities recognised in relation to choice of treatment options, health care provider and redress in relation to health care complaints.

Today's health care consumer has become somewhat savvy due to access to health information through the internet as well as health messages provided by traditional media options. Individuals with relative advantages in relation to financial, educational and social resources have been able to increase their access to treatment options and health care providers, however, disadvantaged populations still bear a heavy burden of disease in the community.

Changing patterns of health care consumption to promote greater equity in health outcomes has been a major debate in the provision of health care in Australia and no simple answers have yet been found. A study on the relationship of cost to consumerism in health care found that social demographic and attitudinal factors affect the likelihood of engaging in consumer behaviours with cost only being a minor factor in consumer behaviour (Hibbard and Weeks, 1987). Armstrong (2008) stated that consumers view the health system as belonging to them and are able to articulate what they value in health care. The recognition of community values in the development, planning and implementation of health care services must occur if health care services want to be responsive to consumer needs and patterns of use in the future.

As Korenbrot and colleagues (2005, p.147) have stated:

“The rise of consumerism, managed care, the role of the government as a payer of health services and an increasingly competitive health care marketplace have all helped to increase interest in improving consumer assessments of their health care ... Patient-centered care is now more widely recognized as care that is congruent with and responsive to patients' values, needs and preferences... Furthermore, evidence of racial and ethnic disparities in health care has spurred interest in what can be done to bridge cultural gaps and biases in provider-patient communications, participatory decision-making, and interpersonal care...”

6.6 Prevention and early intervention

At the highest level of health policies for the past three decades, the key debates have been around managing the tensions between the efficiency efforts to reduce utilisation of high cost acute services on the one hand and the need for equity, especially for disadvantaged populations, and access to generalist and basic level care as well as preventive interventions on the other.

The World Health Organisation's publication of the Alma Ata Declaration on Primary Health Care (WHO, 1978) identified the key principles of “equity and community participation supported by health promotion, intersectoral collaboration, and appropriate use of resources.” (Lawn et.al. 2008, p.919)

Australia's Community Health Program, launched in 1973, grew out of the same sets of concerns for developing a base for a social model of health interventions. It embodied advocacy for achieving a better balance of investment across the care continuum and a more planned approach to allocating resources (Lin et al. 2007, p.158).

In 1986 the WHO Ottawa Charter for Health Promotion (WHO 1986) and its formulation of health promotion initiatives in the late 1980s built on the primary health care strategy by focusing on system level change. Its action framework has previously been described. This broader health policy movement was embodied at the national level in the “Health for All Australians” report that gave greater emphasis to primary and secondary prevention in health policies at national, state, territory and local levels (Health Targets and Implementation Committee, 1988). This health promotion perspective encouraged wider community participation in action for disease prevention and was one of the factors contributing to the growth and complexity of the consumer and carer support sector and its role in community health.

6.7 Organisation, management and governance of community health

There are many papers in both the academic and practice literature on specific community health services and there are many policy papers on health management and governance. However, there is little in the evidence-based research literature on the effectiveness of different community health management and governance arrangements.

One notable exception is *Choices for Change: The Path for Restructuring Primary Healthcare Services in Canada* (Lamarche et al. 2003). This was a major international evidence synthesis to identify various models for organising primary health care and to identify the effects associated with these models. The goal of the study was to recommend the approaches and measures that could be adopted by the federal government and provincial governments and regional health care authorities to improve the organisation of primary health care in Canada.

After a review of the international literature, the researchers identified four major models for organising primary health care. Two models fall into what they called a community-oriented approach and the other two into what they called a professional approach.

The vision of **community primary health care** was defined as improving the:

“health of specific geographically defined populations and to contribute to community development by providing a set of required medical, health, social, and community services” (Lamarche et al. 2003, p.2).

They identified two types of community-oriented models - the integrated community model and the non-integrated community model - that differ based on their degree of integration with other parts of the health system. Community health services in NSW would be classified as integrated while most services delivered through NGOs would be classified as non-integrated.

In contrast, the goal of **professional primary health care** is to deliver medical services to patients who seek these services, or to people who choose to enrol with a primary care organisation. Professional models are then classified as either a professional contact model or a professional coordination model. The professional contact model involves doctors operating their own practices and being paid on a fee for service basis. Professional coordination models are funded by payments to doctors (capitation or mixed payments including capitation, sessional fees and fee for service), with teams consisting of doctors and nurses. Most general practice in Australia falls somewhere between these two models.

They concluded that:

“No single organizational model for delivering primary healthcare among those identified can meet all the anticipated effects of primary healthcare: effectiveness, quality, access, continuity, productivity, and responsiveness.” (Lamarche et al. 2003, p.1)

Each model was ranked based on these effects and the results are shown in Table 2, with 1 being the best and 4 being the worst on each dimension measured. In the Australian context, what they define as ‘continuity’ would be defined here as patient/client ‘satisfaction’ and ‘accessibility’ would be more commonly described as availability.

Table 2 Four primary care models and their impact

Models impacts	Professional contact model	Professional coordination model	Non-integrated community model	Integrated community model
Effectiveness	4	3	2	1
Productivity				
— Cost	3	3	1	1
— Use	4	1	3	2
Continuity (satisfaction)	3	4	2	1

Models impacts	Professional contact model	Professional coordination model	Non-integrated community model	Integrated community model
Accessibility (availability)	1	1	4	3
Equity	3	3	2	1
Responsiveness	1	1	3	3
Quality	3	3	2	1

Source: Lamarche et al. 2003, p.11.

The impacts above fall into two groups:

- Impacts primarily directed at maintaining and improving the health of **communities** (such as effectiveness, productivity, equity and quality) and
- Impacts primarily directed at maintaining and improving the health of **individuals** (availability, continuity and satisfaction).

Overall, the professional models rate better for individual impacts while the community models rate better for community impacts, with the integrated community model rating best overall.

A synthesis of the evidence on the reform of primary care in New Zealand, Canada, United Kingdom, United States of America and the Netherlands was undertaken by Naccarella et al. (2007). The focus was on general practice rather than primary care more broadly.

They concluded that the existing international evidence does not support the adoption of any specific model of primary care suitable in the Australian context. However, they suggested four key mechanisms that should form the basis of future reform:

- flexible funding of GP services
- quality and performance frameworks
- stronger regional structures to support primary care and
- investment in practice infrastructure.

6.8 Hospital demand management

The ageing of the population, increased chronic conditions and higher expectations for new health technologies has increased demand on acute hospitals. Care and time spent in these hospitals is expensive and there is pressure to make sure that these services are used only when necessary.

Demand for hospitals can be managed in a number of ways:

- Long term preventative strategies to improve the general health of the community and minimise chronic diseases
- Programs that aim to improve people's health
- Falls prevention programs for the general aged population
- Targeted programs for people identified as at risk
- Alternative planned pathways to inpatient services instead of through the Emergency Department
- Early discharge services with adequate post-acute support and community nursing
- Rehabilitation services based in the community to improve people's function and reduce future demand

Patient care in the community based in health services located outside of hospitals would benefit from greater integration with other community and health services.

There is little evidence that strategies that aim to divert people from Emergency Department attendance are effective (Masso et al. 2007).

6.9 Workforce

There is a looming crisis in the health workforce. The workforce is ageing and is already overworked and poorly distributed, new professionals with large education debts up to over \$200,000, and demands for a team care approach mean that action needs to be taken to match workforce availability to need (Russell, 2007).

This National Health Workforce Strategic Framework (Australian Health Ministers' Conference, 2004) recognised that a collaborative, multidisciplinary, whole of government approach was required, and that Australia should focus, at a minimum, on national self sufficiency in workforce supply. It also recognised that workforce planning and the education of health workers must be directly linked; that the distribution of the health workforce should enable equitable access to health care; and that health care settings should value their workforce and be places where people want to work (Iliffe, 2007).

The issues within primary health care and community health are similar. The literature concentrates on the shortage of medical practitioners while allied health and nursing are relatively under-researched and generally perceived as secondary. Yet the looming workforce shortages are as much an issue for these disciplines as they are for medicine.

“There is a need for new educational strategies such as developing a basic, common skill set for professional health workers, and a preference for graduate entry programs for health professional education (other than for nursing)” (Duckett, 2005 p.207).

Ellis (2008) argues that the medical profession needs to accept task substitution as one solution to the health workforce crisis. Task substitution involves the creation of new autonomous roles (e.g. nurse practitioners) or roles in which non-medical practitioners work under the supervision of someone else (Duckett, 2005).

Issues for rural, remote and indigenous communities are more extreme (Murray, 2006). Strategies that involve recruiting students from these backgrounds, delivering training locally, with relevant curriculum, and regionally based postgraduate training pathways have been successful. There is merit in offering short generic training pathways to equip a range of health workers for expanded clinical roles under delegation.

Other suggested strategies include:

- Organisational change, so that clinicians can improve the patient's journey through the system (Dunbar, 2007).
- Development of incentives to attract health professionals into primary care (Thistlethwaite, 2007).
- Expansion of the role of generalists in rural and remote health (Pashen, 2007).
- Establishing and strengthening community health centres, staffed by primary health care teams, including general medical practitioners (Iliffe, 2007).
- Workforce planning that links education places to workplace needs (Iliffe, 2007).

6.10 Information and information technology

There are few direct references in the literature on community health information technology, management and systems. One reference (Ryan-Woolley, 2004) reporting on the evaluation of a community rehabilitation team in the UK refers to the need for that service to link to broader information systems for access to client records, and also to the “patchy” nature of data collection. They recommended that the “IT/documentation systems...all need review”. The issue of linkages with broader systems is especially important as Electronic Health Records and Electronic Medical Records are introduced throughout Australia.

Undertaking broader searches, more was found. James (1999) writes about the problems in implementing a community health care information system in a rural community trust in the UK, and the lessons learnt. Users need to get some value from the data that they are entering to support clinical purposes, rather than it just be used for management monitoring; the need to involve clinicians and users in the design of the system; and that the technology should assist in measuring the outcomes and objectives of the care plan.

The issue of the types of information that is collected by community health services is critical to the ability to properly understand and evaluate their work, and to whether they are able to achieve the results expected of them. The Financial Management Framework of NSW Treasury released in 2006, emphasises the need to evaluate performance and to collect the relevant data. It suggests that a data development agenda needs to be developed in order to inform an agency’s performance information systems.

Likewise, a recent report by the Independent Pricing and Regulatory Tribunal of New South Wales (IPART, 2008) recommended:

“That NSW Department of Health extend its performance indicator framework to capture major areas of service delivery that currently are not monitored, including community-based, outpatient and rehabilitation and extended care services, and teaching and research.” (IPART, 2008 p.10)

Opportunities also exist to use modern technologies to provide services to people in the community, and not just report on them. This is true especially for those communities that may be distant or isolated from mainstream services. Lee (2007) reports on an automated, internet based service whose aim is to increase access to sexual health advice for high risk individuals. Knight (2005a) reports that over a 5 year period, over 34,000 callers used a community phone information line about sexual health. Emery (2002) suggests that older people may benefit from services that are provided via telephone, digital television and the internet in their residence.

Guo (2007) conducted a systematic review on the application of wireless and mobile computing and predicts that the use of these technologies will deliver improvements to patient care. Indeed there are many systems under development at the moment.

The critical issue is how health services can be organised to manage these technologies effectively. This means that community health services in order to be effective in the future will also need to have access to the basics for this technology, i.e., broadband internet, secure messaging systems, and enough appropriate computing devices with adequate training and support.

6.11 Screening and assessment

Screening and assessment systems are designed as gateways to the receipt of treatment and services in the community health system. Screening tools are not diagnostic but are used to aid decision-making and standardise how information is collected and shared. Assessment is a broader undertaking that includes screening for more than one aspect of an individual’s care needs. Assessment can cover a broad range of items and provide information that determines a level of risk and/or the need for further assessment and screening in specific areas.

In primary care, screening and assessment should ideally focus on all of the client's needs, not just those items a specific provider or organisation can provide. Prioritisation of need can also be determined through a process of screening and assessment with the intention that those with greater needs and risks will get access to services first. This often involves a value judgement on the part of the assessor as well as agency or program-level policies that set the thresholds for the points at which different services are then offered.

Some of the main issues to consider include:

- The development of standardised screening tools and assessments for community health. There are a number of tools developed at an international level and used in national surveys, such as the K10, that are widely used in community and mental health services, however many agencies and organisations have also developed their own screening and assessment tools specific to their client group and the services they provide.
- Screening and assessment needs to be sensitive to the individual's social and cultural context. This may include Indigenous status, refugee status, cultural norms or religious beliefs, housing status and living conditions.
- If the client has a carer then their needs should also be considered. A carer may have needs that impact on their ability to assist the care recipient as well as needs in their own right. The need for respite as well as assessment of any needs or health conditions the carer may have should be included in an assessment.
- Assessment of clients should not be seen as a one-off event but rather as part of the process of the provision of services to clients to ensure that these services are relevant, and useful. Regular assessment reviews will identify whether the services that a client receives are still relevant, and how they should be modified and these changes then form part of a continuous record (Samsa et al. 2007, p.61).
- While both need and risk can be objectively measured, it is inevitable that the decision about an individual consumer's priority for services (i.e. combining need and risk) will involve some level of value judgement. The judgement (usually by an assessor) takes the form of the agency or program-level policies that set the ranking of the priority categories, and within that ranking, the thresholds for the points at which different services are then offered. (Stevermuer et al. 2007).

A key concept in screening and assessment is the standardisation of the data items that are used so that information can be shared within and between agencies and organisations. This implies an information strategy that promotes common tools and the electronic sharing of information so that the burden of multiple assessments and data entry can be reduced.

6.12 Integration within and beyond health

Integration is logically linked to the development of services and programs and models of care for population groups as described in the evidence on the community health streams. Services for the aged and chronically ill, Aboriginal health, the socially disadvantaged and those with emotional, social problems and health related problems, and mothers, babies, children and adolescents are the intersecting points for integration with other government and non-government agencies. They are also points of intersection and transition within the health system between generalist support and specialist consultation and interventions.

Integration is a long recognised 'wicked problem' in the sense that resolving a problem one way creates equally difficult problems in other domains. This was well expressed by Walter Leutz in his integration law that says 'your integration is my fragmentation' (Leutz, 1999). Section 19(d) of the Area Health Services Act 1986 reflects the intention for area health management to address the issue of integration at more local levels, which has become more difficult as the scale of the Areas has increased.

Contemporary policy documents express this issue of integration beyond health in terms of promoting community-based partnership models, for example in mental health:

“People with a mental illness deserve continuity of care and a more seamless delivery of services. We will therefore build stronger links between the public, private and community services, between hospitals and GPs, and between the State and Federal Governments. For example, the Housing Accommodation Support Initiative (HASI), which currently supports over 700 people, has shown effective community based mental health services can lead to improved circumstances for clients. HASI is a unique partnership between the NSW Department of Housing, the NSW Department of Health and the mental health non-government sector.” (NSW Department of Health, 2006a, p.5)

In the current context, integration within and beyond health services also reflects the enduring tension between vertical integration along health specialty lines and horizontal integration with community care and support organisations that lie outside the span of control of health services. The early models of primary health care resolved these difficulties by promoting shared goals where the aim was to offer access to more specialised models of care and to generalist community health services through a primary care entry point.

On the specific issue of coordination, a recent systematic review (Powell-Davies et al. 2008) identified six types of strategies that were associated with improved health and/or patient satisfaction outcomes in more than 50% of studies. The authors report that interventions using multiple strategies were more successful than those using single strategies. The six strategies fell into two groups:

Structural arrangements for coordination

- Having structured relationships between service providers and with patients
- Using structured arrangements for coordinating service provision between providers
- Using systems to support care coordination

Coordination activities

- Providing support for service providers
- Improving communication between service providers
- Providing support for patients.

Primary and community health is geared to benefit particular population groups by improving their access to generalist and basic services, providing referral where needed to specialist interventions, and offering early intervention prior to hospital episodes. Contemporary debates about the role of generalist teams versus specialist services emphasise the origins of the apparent dominance of the specialist models. This was well summarised by Gunn et al. (2007, p.21) in their recent review of generalism in primary care:

“An interesting point was made by Starfield et al., (2005: 486) in their conclusion where they argued that, ‘professional specialty groups in the United States have made little if any attempt to define the practice of “specialism” or the circumstances that should lead to seeking care from specialists’ (Starfield et al., 2005: 486). This is a noteworthy point in light of the way in which generalism and generalist approaches have had to continuously make a case for their role and importance in primary health care. In Moore’s (1992: 372) view the problem is linked to the way in which the marketplace favours specialism.

The sense of urgency and alarm in much of the international literature about the devaluation, loss and downfall of generalism within primary health care systems can be linked to earlier issues identified at the introduction of this report. Some of these relate to the way in which generalism has always been measured in opposition to specialism with specialists being seen as advanced or more expertly trained. Others relate to political and

economic forces which have pushed technical focus and specialism over generalism. It is striking that generalists, the people who provide first contact, continuous care in relation to the social context of individuals and communities have had to justify and define their roles so much. This latter theme is repeated in commentary and editorial papers identified for the review.”

While this well describes the integration problem and its origins, the solutions are going to be in areas of management decision-making, and corporate and clinical governance. When a primary community care focus has achieved an equal place alongside hospital services in area-based management, then it is more likely that integrative strategies can move from being highlighted in the policy arena into being part of routine practice.

“The values and kind of care delivered through generalism do provide the basis for an equitable, accessible and affordable health care system.” (Gunn et al. 2007, p.33)

6.13 Conclusions

The combination of demographic changes with associated changes in the morbidity profile and of burden of disease, increased levels of dependency in older people maintained in the community, and the relative success of aged care assessment and more complex community care alternatives, have created a very different context for community health in 2008, from that existing in previous decades. The notion of “prevention” is now more complex than expecting only generalist and maintenance level services on their own to prevent residential care admission or to minimise the impact of chronic diseases on the hospital system.

Changing patterns of health care consumption to promote greater equity in health outcomes has been a major debate in the provision of health care in Australia. A study on the relationship of cost and consumerism in health care found that social demographic and attitudinal factors affect the likelihood of engaging in consumer behaviours with cost only being a minor factor in consumer behaviour (Hibbard and Weeks, 1987). Compared to earlier eras, consumers now view the health system as belonging to them and are more able to articulate what they value in health care.

The recognition of community and consumer values in the development, planning and implementation of population-level interventions and health care services is now part of the development agenda for community health. Developing the models of care that are most responsive to consumer needs and patterns of service use is one of the challenges for developing primary and community health services in the future.

In summary, the following factors are of importance in considering future directions for community health services:

- There is an increasing demand for a greater provision and variety of primary health services.
- The behaviour and attitudes of people have a significant influence on their health. Prevention can be encouraged in counselling situations in the community.
- The environment of infancy and childhood so strongly influences the development of personality and is of such consequence in the evolution of emotional and social disorders, that these matters should receive emphasis within an effective community health and welfare service.
- About one quarter of the total population suffers from some disease condition which will never be cured in the light of current knowledge, and one person in every ten is disabled by these chronic infirmities. Almost one-third of those troubled by chronic disease are under the age of 60. Most have associated psychological and social disabilities. In addition, the incidence of disablement in older people increases to the point where four out of ten of those aged 75 and over are limited in one or more of their daily activities. General practitioners need more assistance than they are getting to provide a realistic choice for patients between institutional care and community care.

- About 2% of the population have some serious mental illness but considerably more have a significant psychological disorder. Large numbers of people have co-existing emotional and physical disorders. They require more support, alleviation, special training, rehabilitation and care in the community than is available at present.
- There are many additional problems in which the medical and social aspects are so interrelated as to require the attention of teams of health and welfare professionals to deal with the social problems that are the basis of symptoms.

7 The evidence for community health interventions

This section summarises the evidence for community health interventions. The aim is to be illustrative rather than comprehensive. More details are included in Attachment 1.

7.1 A synthesis of the evidence

There is very little evidence in the intervention literature on community health *per se*, community health ‘models of care’ or community health service systems. Rather, the focus in the literature is on specific interventions provided by primary and community health services. While some of these interventions may be described as ‘models of care’, some are broad programs and others are targeted clinical and social interventions.

The HBG-HRG framework is used to synthesise the evidence for community health service interventions across the twenty service streams listed. Population groups within each HBG category are likely to have similar needs for interventions. This framework also highlights the gaps in current knowledge of the relative effectiveness of investment in each stage of health care (Commonwealth Department of Health and Aged Care, 2001).

The HBG-HRG framework is a way to organise the review material so the focus stays on the population groups who have a capacity to benefit from health system activity. The structures and settings for an organised response to the health problems of benefit groups in the population are shaped by resource allocation decisions and only minimally by policies.

Table 3 summarises examples of the evidence that exists for the range of services typically offered by community health services. This table is illustrative rather than comprehensive. More detail is provided in Attachment 1 (page 64).

Table 3 The evidence in summary

Community health stream (Examples)	HBG- Target Group				
	Not At Risk	At Risk	Presentation	Confirmed Problem	Chronic Consequences
	HRG - Health Service Response				
	Health Promotion	Prevention & Early detection	Investigation	Treatment	Continuing Care
Aboriginal Health Aboriginal Health Workers. Priority programs such as otitis media, eye health, maternal and infant health, renal care	There is good evidence that funding and resourcing primary health care, particularly in the areas of child and maternal health, chronic disease and alcohol, drug and mental health services, will help to address the gap in health outcomes and life expectancy between Indigenous peoples and non-Indigenous people. Access to primary care remains a problem in remote areas. Programs targeting chronic conditions have produced evidence of reduced hospital admission rates.				
Aged & Extended Care ACAT, dementia support, falls prevention, day programs, PADP, home assessment, medication review, ASET and hospital liaison	There is strong evidence for the benefits of prevention and early identification and intervention efforts by providing equipment and mobility aids and falls-related interventions. Comprehensive aged care assessment is well established as an effective strategy for planning interventions and referrals for both preventative and treatment services. There is strong evidence that properly implemented community based services can increase functional capacity, and that home visiting services and the provision of multi-service care packages can prevent admissions and assist post-acute care recovery. Better integration of the range of services, especially at the level of information sharing, is often described as the key strategy, but is difficult to achieve in practice.				
Child & Family Health Early childhood services, Families NSW, Family Care Cottages, community midwifery, paediatric therapy services, disability	Strategies targeting child and family health are mostly focussed towards the health promotion, prevention and investigation end of the Health Resource Group matrix. There is good evidence for community midwifery models and home visiting for the new born and offering support to new parents where outcomes relate to the reduction in dysfunctional care of children and the improvement of the maternal life course. The functional and economic benefit of nurse home visitation programs is greatest for families at greater risk.				

Community health stream (Examples)	HBG- Target Group				
	Not At Risk	At Risk	Presentation	Confirmed Problem	Chronic Consequences
	HRG - Health Service Response				
	Health Promotion	Prevention & Early detection	Investigation	Treatment	Continuing Care
diagnosis and assessment, school health, immunisation, genetic counselling	Most gains in prevention and early detection for child and family health problems can be achieved through a systematic and coordinated approach across the health sector. Selected interventions should be based upon a catalogue of best practice and targeted towards those families and their children that need them most.				
Community Nursing & Domiciliary Care Domiciliary care, wound management, health assessment, health maintenance, primary palliative care, specialist CNCs – Breast care, renal care, stoma, continence etc	The evidence on the impact of community nursing interventions on health outcomes is limited; however there is strong evidence that demonstrates the cost effectiveness of community based as opposed to hospital based care. There is modest evidence that, for care within the scope of nurses' practice, nurses in primary care settings can provide effective care and achieve positive health outcomes for patients similar to that provided by doctors. Nurse-led care may involve higher levels of patient satisfaction and quality of life than doctor-led care in primary care settings. There is increasing tension and debate between specialist and generalist services as the role of community nursing and domiciliary care is increasingly focused on the technical requirements of the treatment and continuing care Health Resource Groups.				
Community Rehabilitation	Rehabilitation services are focused on the needs of people in the Continuing Care HRG. There is strong evidence that community based multidisciplinary teams assist people with chronic injuries or disease in the community, and for the provision of services in the community to patients who are currently receiving rehabilitation type services as inpatients. The available evidence suggests that rehabilitation should always be given by a specialist community rehabilitation team with a range of expertise in assessing and managing common problems, with a knowledge of all the resources available locally and an ability to refer patients back to other specialised services. The evidence suggests that community rehabilitation services are, at the very least, as cost effective as hospital based services and that they provide better outcomes for patients.				
Counselling & Psychosocial Services	These services are essentially treatment focused and there is some evidence of longer term prevention of more serious mental health problems. Dedicated services that give access to counselling and psychosocial services to disadvantaged and other specific groups of people increase the range and reach of mental health interventions. These groups are victims of trauma, refugees, the homeless, people with an intellectual disability, survivors of child abuse and individuals with a chronic or life limiting illness. There is good evidence for the provision of counselling services in a primary care setting, however, this must be supported by an effective referral and patient management system.				
Drug & Alcohol Assessment and counselling, home detoxification, opioid replacement programs, needle and syringe, Drug Court	Early prevention strategies targeted to high risk children and adolescents are most effective and minimisation is an important principle. There is strong support in the literature for family-based interventions, based on the principle that competent parenting provides a protective context for adolescent development. School-based programs can also be effective if they are interactive and skills based and build social competence, and the effectiveness of school-based interventions can be enhanced by adding a family-based component. Brief interventions are most effective when they are delivered early to people at risk of developing problems and for those patients with established patterns of harmful or dependent drug use, the main factor that predicts good outcomes is retention in treatment				
Health Promotion Disease prevention and risk factor programs, injury prevention, community nutrition, health promoting schools, mental health promotion, community development	Smoking, nutrition, alcohol and physical activity are the major preventable risk factors for chronic diseases. There is good evidence for interventions aimed at reducing chronic diseases and cancer, nutrition and physical activity interventions for children and young people, falls prevention and men's health initiatives. There is a gap in programs aimed at reducing overweight and obesity in young children, and schools are an accessible and amenable setting for prevention efforts that aim to promote good health behaviours and sun protection.				
Hospital Demand Management Community Acute/ Post Acute Care, hospital in the home, discharge planning	These interventions are at the treatment and continuing care end of the HRG continuum and are effective in facilitating the early discharge of patients. Patients and their families report greater levels of satisfaction with these programs compared to routine hospital care. However, data on the costs incurred by these programs relative to routine care are mixed. There is strong evidence that appropriate community based services such as				

Community health stream (Examples)	HBG- Target Group				
	Not At Risk	At Risk	Presentation	Confirmed Problem	Chronic Consequences
	HRG - Health Service Response				
	Health Promotion	Prevention & Early detection	Investigation	Treatment	Continuing Care
& coordination, ComPacks, Transition care	Hospital in the Home are an effective alternative to hospital based services. The evidence is weaker for programs that aim to avoid attendance at EDs.				
Intake and initial assessment Intake, initial needs identification and referral	This stream is relevant to the early detection and investigation, as well as the continuing care HRG. There is evidence to suggest that current practices of screening and needs identification will be improved by the adoption of common and more standardised data items and formal processes for measuring function and other consumer characteristics. Common and standardised screening tools should allow providers and professionals to work together, to coordinate their response to consumers.				
Mental Health Child and adolescent, adult mental health, older people's mental health, special needs	Effective mental health interventions are required across the whole HRG spectrum from health promotion through to continuing care. Significant gains can be made in the primary care setting through collaborative care initiatives that support GPs and optimise the use of allied health professionals and alternatives such as telephone counselling and NGOs. Improving access to services in rural and remote areas and for Indigenous populations requires tele-health technology and partnerships that emphasise long term goals and workforce development. Partnerships to provide social housing for people with mental health problems have been shown to be effective.				
Multicultural Health Ethnic Health Workers, interpreter services, refugee health, torture and trauma services	Interventions that aim to improve multicultural health are mostly targeted at the health promotion/prevention end of the health resource group matrix and are expected to be delivered collaboratively involving both the CALD community and the health sector. Effective interventions for this benefit group are aimed at modifying existing health services so that they reflect the needs of consumers. Cultural competency should be promoted to ensure that it is identified as an important component in education and professional development for community health staff.				
Multidisciplinary Chronic Disease Management Cardiopulmonary, diabetes education and control	Chronic care is relevant to every service type delivered in community health. There is increasing recognition of, and evidence for, the role of prevention and early intervention and more effective integrated treatment in improving the health system's response to chronic care. There is strong evidence to invest in the treatment and continuing care HRGs through specific disease management programs, case management, coordinated care, clinical pathways, home-based interventions and self management strategies. Systematic reviews provide good evidence for the benefits of preventative home visiting (conducted by a nurse or health visitor) on older people 65 years and over. Effective components of this intervention include: multidimensional geriatric assessment, multiple follow-up visits and targeting of those at lower risk of death and those who are relatively young. Traditional methods of healthcare delivery do not adequately address the needs of individual people or populations with chronic disease. Chronic diseases are best managed by models of care that are integrated and actively involve the patient and/or carer, however, multidisciplinary collaboration is a concept often recommended yet seldom practiced.				
Oral Health School dental program, adult dental services, specialist services, dentures	There is strong evidence for health promotion, prevention and early detection in preschool and school age children. There is good evidence for oral health promotion interventions tied to prenatal and well-baby care, and in the preschool and primary school setting. Interventions are effective that develop personal skills such as tooth brushing, use of fluoride toothpastes and mouth rinses. There is good evidence of the benefit of providing dental checks and treatment for "high risk" population groups.				
Palliative Care (specialist)	The majority of people wish to die in their own homes. Primary health care services are in the best position to support this, provided that they have adequate training and resources, and when needed, have access to specialist palliative care for support. Services that allowed patients to spend more time in community settings were associated with satisfaction and were a cost neutral strategy and this approach freed up hospital beds for other uses. There is evidence that palliative care can reduce hospital admissions, the number of inpatient bed days and potentially can reduce costs compared to conventional care.				
Physical Abuse and Neglect of Children Therapy, counselling and	There is no evidence that mandatory reporting legislation in Australia or elsewhere has been effective in protecting children. The evidence is stronger for prevention and early intervention. Interventions span across three Health Resource Groups. Health promotion: there is little evidence to suggest that primary prevention services targeted at the general				

Community health stream (Examples)	HBG- Target Group				
	Not At Risk	At Risk	Presentation	Confirmed Problem	Chronic Consequences
	HRG - Health Service Response				
	Health Promotion	Prevention & Early detection	Investigation	Treatment	Continuing Care
casework services, education and training	population have demonstrated any impact on child maltreatment or its risks. Prevention and early detection: there is good evidence to suggest that targeting early prevention programs at high risk families with children up to the age of three is effective in reducing the incidence of abusive and neglectful acts. This includes home visiting of at risk families. Treatment: there is good evidence to suggest that home visiting and group-based parenting programs are a cost effective way of improving parenting.				
Sexual Assault Crisis care and medical examinations, counselling, court support and advocacy, education and training	<p>Sexual assault services are effective where there is demonstrated potential for secondary prevention and the reduction of secondary trauma resulting from insensitive service responses. There is evidence that specialist services may be of greater benefit to victims of sexual assault than generalist primary care services.</p> <p>Early detection and tailored interventions can reduce demand for medical interventions around complications and transmissible disease and subsequent longer term mental health service responses. At the population health level the evidence implies investment in campaigns of raising awareness in general services so as to detect victims of sexual assault in mainstream services and dedicated staff at the secondary referral and consultation level who are familiar with the specific issues around sexual assault, and a capacity in the primary health sector for longer term follow-up and counselling. Development of effective linkages with specialist sexual health services is needed as is research into how best to serve male victims and rural, remote and Indigenous populations.</p>				
Sexual Health HIV/AIDS programs, clinical services, contact tracing, STI education and awareness	<p>Sexual health services deal with sexually transmissible infections such as chlamydia, gonorrhoea and syphilis and blood borne viruses such as HIV and hepatitis and cover the full range of the HRGs, from health promotion to dealing with chronic conditions and continuing care. They also include the tracking of a person's sexual partner/s to identify any transmitted infection at an early stage. The key findings from the literature are about the need for sexual health services to work in partnership and collaboration with other primary care services and organisations. The use of practice nurses as an alternative to sexual health clinics for some needs is possible, but this is countered by the need many people have for confidentiality and therefore a reluctance to use their GP. Another key finding is about the importance of easily accessible and appropriate information.</p>				
Women's Health Cervical cancer screening, reproductive health information and education, priority target group programs and capacity building	<p>Women's Health Centres provide women's health nursing services that include the full spectrum of HRGs such as, community education groups, health care talks for women and the provision of well women clinics. These centres have historically targeted women who are disadvantaged and may not access mainstream funding services. There is good evidence that investment in primary health care positively impacts women's health. The evidence suggests the best value is from interventions in the HRGs that focus on health promotion, early intervention and screening. Evidence of the benefit of specific interventions to assist those identified as suffering from domestic violence is needed, as is evidence that the screening itself does not cause harm. Women of all ages have the potential to benefit from a focus on wellness.</p>				
Youth Health Youth health services, education and support programs, interagency and capacity building	<p>In the primary care setting, brief interventions in relation to substance abuse problems are effective at the preventive end of the HRG spectrum, as is the screening, assessment and management of mental health problems. There is clear evidence supporting the enhanced access to primary health care through youth-specific services, particularly in relation to reducing emergency department use. There is emerging evidence that investment in various forms of treatment will have wider benefits in terms of community level reductions in crime, road trauma, hospital admissions and other serious drug-related harm. Effective programs that address youth health problems are those that offer wider social and community level interventions in relation to youth at-risk behaviours aimed at reducing negative health outcomes.</p>				

7.2 Conclusion

The key message is that, overall, there is a good, and in some cases very strong, evidence-base for the range of services that are typically provided by community health services.

However, the amount of available evidence is sometimes limited and the quality highly varied. Many of the interventions identified may be context specific. There are also holes in the evidence in some places. This is not to suggest that some services that are currently provided are ineffective. Rather, it reflects the historic lack of resources for research and evaluation in primary care and community health. This has resulted in only a limited evidence-base in some streams of care, an issue that will need to be addressed in the future.

Our final report draws on the evidence presented in this report in proposing a strategic direction for community health in the future.

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Attachment 1: The evidence by stream

A brief synthesis of available evidence is provided for each community health service stream. This information is organised under three headings: background, evidence base and discussion. This information is not meant to be comprehensive but rather illustrative of the evidence that underpins common community health interventions both in Australia and internationally. As noted previously, this limitation is a result of the scope of the project and allocated budget.

Aboriginal health

Background

National statistics show that there have been some gains made in the health of Aboriginal peoples. This includes some improvement in mortality rates, sudden infant death syndrome and circulatory disease deaths. However, there are still many disparities evident, including lower birth weight, higher occurrence of a wide range of illnesses, higher prevalence of stressors impacting social and emotional wellbeing, higher specific death rates and lower life expectancy (Australian Health Ministers' Advisory Council, 2006). In 2008, the health of Aboriginal peoples remains well below that of other Australians and there is a national commitment to 'close the gap' within a generation.

The Council of Australian Governments (COAG) Communiqué 20th December 2007 states:

"COAG agreed the 17 year gap in life expectancy between Indigenous and non-Indigenous Australians must be closed.

COAG is committed to:

- closing the life expectancy gap within a generation;
- halving the mortality gap for children under five within a decade; and
- halving the gap in reading, writing and numeracy within a decade."

Evidence

Maternal and Child Health

Maternal and child health is core business for primary and community health care for Aboriginal and Torres Strait Islander peoples. The health of the child depends largely on health outcomes for the mother and the health of both depends also on the health of their family and community. Primary health care services are well placed to deliver quit smoking interventions for women in general and pregnant women in particular (Griew et al. 2007). Brief interventions from primary health care services are effective in reducing alcohol consumption of women of child bearing age in the short term, and dangerous levels of drinking over the long-term, especially for women who become pregnant in the period after the initial intervention (Eades, 2004).

Poor sexual health, including the presence of STIs and genitourinary infections, can also affect the unborn child (Griew et al. 2007). Cultural differences often interfere with proper sexual health care and require a clear model of cultural care to guide health service delivery (Kelly & Luxford, 2007).

Late presentation for antenatal care is associated with poor birth outcomes among Indigenous women (Eades, 2004). To identify and reach out to women early in pregnancy, primary health care requires both effective population age-sex registers as a cornerstone of good primary health care management and effective community/family engagement and cultural safety strategies on the part of the primary health care service (Griew et al. 2007). Family planning initiatives are also important as there is evidence that the information and support provided by pregnancy counselling services for young mothers (under twenty years) has a significant positive effect on birth weight (Eagar et al. 2005a).

Primary and community care are well placed to address issues of infant nutrition, including breastfeeding and advice on nutritious food for children, however, there is conflicting evidence on the rates of breastfeeding among Aboriginal and Torres Strait Islander women and access to nutritious food must be addressed before other interventions are likely to succeed (Griew et al. 2007).

Indigenous children from remote areas tend to have higher immunisation rates than those in urban areas (AIHW, 2005). Home visiting interventions are effective in increasing immunisation rates (Department of Human Services, 2008). A number of studies in the United States have shown that sustained home visiting can produce a number of very important outcomes in areas that are both important and difficult for service providers, however, it is important to maintain design integrity of home visiting interventions as gains quickly fall away if initiatives are watered down for disadvantaged populations (Olds et al. 1997; Olds et al. 1998; Olds et al. 1999).

The development of effective service models, particularly around maternal and child health, is important to the health and welfare of Aboriginal and Torres Strait Islander peoples. Some good examples of effective models include the Mums and Babies Program – Townsville Aboriginal and Islander Health Service (Panaretto, 2003; Atkinson, 2001); Congress Alakura, an Aboriginal women's health and birthing centre (Chee et al. 2001); NSW Aboriginal Maternal and Infant Health Strategy (NSW Health, 2005); the Northern Territory's Strong Mothers, Strong Babies, Strong Culture program (Mackerras, 2001); the Nganampa Health Council (Solomon, 1999); and Western Sydney's Daruk Health Service (Department of Health and Ageing, 2001).

Chronic Disease

Zhao and Dempsey (2006a) found that the main contributors to the gap in health between Indigenous and non-Indigenous populations were non-communicable diseases and conditions and argued that public health interventions need to maintain a focus on preventing and managing chronic disease. Gains made in communicable diseases and child and maternal health were offset by significant increases in cardiovascular diseases and diabetes for women and cardiovascular disease, cancers and digestive diseases for men (Zhao and Dempsey, 2006a).

Work done by Wendy Hoy and colleagues showed that chronic disease programs, including treatment and screening initiatives, can be successful in reducing deaths and managing disease. The under-resourcing of primary care relative to need and lack of support for new initiatives and programs can seriously undermine the good that such programs can do in the Indigenous community (Hoy, 2006; Hoy, 2005; Hoy, 2000). Indeed there is evidence that primary care has somewhat failed the Aboriginal and Torres Strait Islander population mainly due to a lack of access to a responsive primary health care system. This includes funding through the Medical Benefits Scheme (MBS) and the Pharmaceutical Benefits Scheme (PBS). This can only be redressed by improving funding according to need, equitable access to national schemes such as the MBS and PBS, access to culturally effective health services and training of health care workers, both Indigenous and Non-Indigenous, who work with Indigenous people (Dwyer et al. 2004).

The Sharing Health Care Initiative described by Wakerman et al. (2006) and Humphreys et al. (2008), aimed to improve the management of chronic disease in the Katherine region and found that the project had a significant effect on community awareness of chronic disease and an improvement in clinic processes. Battye and Taggart (2003) also described the development of an effective allied health care service model using a planning matrix that addressed the local burden of disease, service delivery context and community concerns, recruitment and retention of health professionals and integration with resident and visiting health and community services.

In 1999 a trial to improve diabetes care in the Torres Strait resulted in an 18% fall in hospital admission rates and a reduction of 41% in the number of people admitted to hospital for diabetes-related conditions. On follow-up in 2002 there was a continuing reduction in hospital admissions for diabetes complications (from 25% in 1999 to 20% in 2002). The proportion of people with good glycaemic control increased from 18% to 25%, and the proportion of people with well-controlled hypertension increased from 40% to 64% (McDermott et al. 2001; McDermott et al. 2003).

Evidence from North America and New Zealand has also shown that active engagement by Indigenous communities in their health services is a positive factor in contributing to improved health outcomes (Dwyer, 2004).

Alcohol, Drugs and Mental Health

Aboriginal and Torres Strait Islander People face a number of stressors including physical violence, alcohol and substance abuse, mental illness, suicide, premature death and financial stress and until such time as there are improvements in the social and emotional conditions facing Indigenous people there will be an increasing demand for primary and acute mental health services (Australian Health Ministers' Advisory Council, 2006).

Access to mental health services for Aboriginal and Torres Strait Islander people continues to be an issue. The development of culturally sensitive mental health services is vital to improving Indigenous health statistics. A mental health project at the Geraldton Regional Aboriginal Medical Service reduced psychiatric admissions of Aboriginal and Torres Strait Islander people to Geraldton Regional Hospital by 58% (Laugharne et al. 2002).

The Regional Aboriginal Integrated Social and Emotional (RAISE) Wellbeing program in South Australia developed an Aboriginal mental health service partnership between one Aboriginal health service and three mainstream services. It found that important to partnership development was agreed care management processes and training in cross cultural mental health to develop a sense of collective efficacy and the effective use of data to communicate the value of the program both internally and externally (Fuller et al. 2005).

The Australian Integrated Mental Health Initiative Northern Territory Indigenous stream (AIMHI NT) is an Aboriginal mental health service delivery model that revealed that Aboriginal mental health workers provided essential services as cross-cultural brokers in the setting of Aboriginal mental illness (Nagel and Thompson, 2006).

Indigenous people are significantly more likely than non-Indigenous people to have substance misuse recorded as a problem (Nagel and Thompson, 2006). A review by Gray et al. (2000b) on alcohol misuse interventions for Aboriginal Australians suggested that there is evidence for initiatives that reduce supply. Evaluation of the Tennant Creek liquor licensing initiative showed a 17% drop in purchase and a drop in per capita consumption from 25.3 litres in 1994/95 to 20.4 litres in 1996/97, however, there was some circumvention of the initiative through purchasing of other alcohol products and purchasing in other locations (Gray et al. 2000a). A case study on inter-sectoral action to reduce petrol sniffing in Central Australia estimated that between 2004 and 2007 there was a drop of between 68% and 95% in petrol sniffing across different communities (Carvalho, 2007).

Discussion

Continuing research into the drivers for and solutions to the health care problems facing Aboriginal and Torres Strait Islander people is integral to closing the gap in health and life expectancy between Indigenous and non-Indigenous Australians. Funding and resourcing for primary health care, particularly in the areas of child and maternal health, chronic disease and alcohol, drug and mental health services, must follow the development and implementation of evidence based strategies. At a population level, addressing the social determinants of poor health must go hand in hand with the implementation of any primary health care initiatives. Improving the health of Aboriginal peoples requires investment across all Health Resource Groups.

Aged and extended care

Background

As the NSW population ages, there will be greater demands on health services. Services based in the community provide one way to lessen the demand on acute-care hospitals by assisting to minimise admissions, and by providing services that were traditionally delivered in the hospital. There is a wide range of services that could be included from preventative services to community based chronic care services.

Evidence

Home Visiting

The two systematic reviews of Stuck et al. 2002 and Elkan et al. 2001 provide good evidence for the benefits of preventative home visiting (conducted by a nurse or health visitor) on older people 65 years and over. Effective components of this intervention include: multidimensional geriatric assessment, multiple follow-up visits and targeting of those at lower risk of death that are relatively young (Stuck et al. 2002).

The interventions that are most effective often consist of a multidimensional assessment followed by a form of active care coordination and 'empowering' rather than a maintenance approach in terms of advising, recommending and negotiating, where the aim is often to support the patient in taking an active part in health related issues. (Frich, 2003)

One study by Meyer et al. (2002) reports on an innovative program that uses technology to monitor patients in order to enhance case coordination and management. The program uses technologies like instamatic cameras operated by patients or carers to monitor diabetic wounds, and a set of computerised questions and messaging service about disease symptoms administered via the telephone with results sent to a secure internet site to manage complex medical / chronic disease populations. This approach was found to improve efficiency and decrease resource utilisation (including Emergency Department visits, hospital and nursing home admissions) and self-reported improvements in functioning and health.

Community nursing and allied health

The paper by Allen et al. (2001) provides useful supporting evidence for the provision of rehabilitation appliances, especially with regard to the use of canes and crutches.

For community nursing, the paper by De Vlieghe et al. (2005) outlines a descriptive study of the core interventions for home nursing of elders in Belgium and how performance of the basic helping activities (bathing, clothing) is a pre-condition for the performance of the more technically complex (wound care) and higher order interventions (e.g. counselling, prevention). While Markle-Reid et al. (2006) provides a review of effective health promotion activities performed by nurses in people's homes.

The papers by Steultjens et al. (2004) and Gitlin et al. (2006) outline best practice occupational therapy interventions for elders. Gitlin's preliminary findings are:

- preventive, home based intervention may reduce mortality risk
- control-oriented strategies may have positive influence on survival
- focus on what keeps people well – rather than a focus on what causes people to be unwell
- highlights the positive health benefits of people being able to continue doing what they like and want to do

- multifactorial issues can impact on functional ability– this warrants a multidisciplinary response /approach to integrated primary health care.

Falls Prevention

As people age, their risk of falls and resultant significant injury will increase (Banez, 2008) and place increasing pressure on acute hospitals. There is a growing range of literature looking at falls prevention programs, the evidence behind them and their effectiveness. Two Cochrane Reviews (Gillespie, 2008) and (McClure, 2008) both found that interventions for preventing falls in elderly people are likely to be effective even though there were methodological problems in many of the studies evaluated.

The paper by Pynoos et al. (2006) outlines the evidence base for falls prevention programs. Rubenstein (2003), reports on a joint United Kingdom-United States interdisciplinary panel cosponsored by three professional societies that develop evidence based guidelines for falls prevention. These recommendations included assessing older people as part of routine care, and also those who have had a fall or are at risk. Recommended interventions included multifactorial interventions, such as gait training, exercise and balance training, environmental modifications to reduce risk, medication reviews, use of appropriate assistive devices, and behavioural and educational programs.

Shumway-Cook (2007) and Campbell (2005) used a randomised controlled trial to evaluate two falls prevention programs and found that they were successful. Banez (2008) and Casteel (2004) evaluated two other programs and found them successful as well.

Care Packages

As care services are increasingly being provided in the community setting as an alternative to hospital care, a number of research papers have explored their effectiveness and better ways of delivering the care.

Albert et al. (2005) in a naturalistic study into the New York City Medicaid Home Care Services Program found this intensive home care and case management service did significantly reduce mortality for disabled elders in the program three to five years later. (The package of care included: light housekeeping, provisioning and preparing of meals, and personal assistance – high intensity if required - and regular nursing assessments with case management, referral and evaluation).

Vass et al. (2005) provides further evidence of the benefits of preventative home visits upon functional status using a randomised controlled trial design based on local areas. (The package of care included: home visits, telephone calls, short standardised assessments, monitoring and GP training and referrals).

Nakatani and Shimanouchi (2004) found evidence for benefits of home care with increased service use and monitoring to prevention functional decline in a group of Japanese elders. (The package of care included: care planning, monitoring and evaluation in terms of service delivery. However service delivery issues were not defined apart from their cost. Care items addressed included housekeeping, security, hygiene, eating, activities of daily living and the preparing of wills.)

McCusker & Verdon (2006) in their systematic review of interventions to reduce Emergency Department (ED) visits found that three out four home care studies they identified were successful in reducing ED utilisation. (The packages of care included: comprehensive assessment, multidisciplinary teams and case management, the issue of types of services delivered was not defined here.)

Johri et al. (2003) outline a number of common mechanisms to promote integrated care for the elderly, they include:

- single point of entry
- breadth of service provision
- degree of responsibility for patient
- case management
- geriatric services
- multidisciplinary team
- financing mechanisms
- physician integration and patient choice.

MacAdam's (2008) systematic review of frameworks of integrated care for the elderly found four key elements:

- umbrella organisational structures to guide integration
- multidisciplinary case management for effective assessment of client needs
- organised provider networks with standardised procedures, service agreements, and shared information systems
- financial incentives to promote prevention, rehabilitation and service integration and efficiency.

Marek et al. (2005) compared a nurse coordinated home care service versus the standard home care service in Missouri, using standardised assessments they found that clients with nurse coordination scored better on measures of pain, breathing and ADL functioning at 12 months. There was some evidence that the nurse coordinated service was better integrated as it used fewer providers. The package of care included basic and advanced personal care, homemaker care and respite - with or without nurse coordination.

Rassen (2003) documents a case management program for elders living in the community in San Francisco showing improvements in quality of life and reduced utilisation of medical resources. (The package of care included: GP and medical centre staff training, comprehensive assessment, case management, home visiting, therapy, telephone calls, monitoring, referral to local volunteer services [e.g. meals on wheels], bill paying, medical equipment, adult day care, transportation and respite services.)

These key concepts for care packages are: service intensity, training of other providers in the community, assessment and monitoring, care planning and management, multi-disciplinary teams, care coordination and evaluation, home visiting, telephone contact, equipment and transport, referral to other providers and volunteer agencies, as well as respite services.

Other Issues

There are a number of major trends noted in the literature. The first is the utilisation of technology in the delivery of home health care – e.g. the creation of smart homes e.g. the use of emergency alarms, monitors, sensors and special cameras (Demiris et al. 2006, Cheek et al. 2005) and Telehealth (see the Veterans Affairs Care Coordination Home Telehealth Program), (Barnett et al. 2006); and telephone screening systems (Fries et al. 2002).

The second major trend is the rise of programs designed to restore or improve functional abilities (or prevent functional decline) in the elderly receiving home care. These programs adopt a functional independence philosophy rather than a maintenance focus. Review papers and studies outline the beginning of this approach (Baker, 2006; Barnett, 2003; Giffords and Eggleton, 2005; Tinetti et al. 2002). While the evidence base for these interventions is still being built (see Mottram et al. 2002 for example), the trend is promising.

The third major trend is the emergence of the importance of physical activity in the elderly and the rise of home exercise programs to prevent falls and disability in older adults (for an example see the paper by Robertson et al. 2001).

Discussion

The key points in the literature are:

- Better integration of services (standardised assessment, care coordination, single entry point, use of technology) is needed to improve care in the community.
- Active programs with set goals (e.g. health promotion and falls prevention, exercise) that promote independence, rather than just maintenance are more effective.
- Data needs to be collected to enable the better targeting of interventions (e.g. age related, needs) and measure and evaluate outcomes (e.g. activities of daily living functioning).
- Improving the health of the growing population of older people requires investment across all Health Resource Groups.

Child and family health

Background

In Australia, the overall health, development and well-being of children is high on many indicators and childhood mortality rates have halved over the last two decades. However, there are some concerns relating to the rapid social change and the associated new morbidities such as increasing levels of behavioural, developmental, mental health and social problems. Health indicators also continue to highlight the health divide between Indigenous and non-Indigenous children with the Aboriginal and Torres Strait Islander Infant mortality rate at three times the rate for non-Indigenous Australians (Schmied, 2008).

In the main, women and families in Australia have access to universal primary care services and find them acceptable. Midwives, child and family health nurses, and general practitioners strive to provide holistic care that incorporates all aspects of health including social, emotional and spiritual as well as the physical. However, there is evidence that these services may not be available equally and accessed by all women, children and families. Maternal and neonatal outcomes are poorer for women from disadvantaged, vulnerable or socially excluded groups. This is consistent with the 'inverse care law' that operates within health systems, whereby those that are in most need of health services are least likely to receive them.

This has resulted in early childhood becoming a priority for Australian government and non-government organisations. From a government perspective in December 2007, the Council of Australian Governments (COAG) agreed to a partnership between the Commonwealth and state and territory governments to:

“pursue substantial reform in the areas of education, skills and early childhood development, to deliver significant improvements in human capital outcomes for all Australians” (COAG, 2007).

COAG has also bilaterally agreed to sustained engagement and effort by all governments over the next decade and beyond to achieve the Closing the Gap targets for Indigenous people. As a first step, COAG agreed in principle to a National Partnership with joint funding of around \$547.2 million over six years to address the needs of Indigenous children in their early years.

Evidence

In recent times there has been significant efforts both nationally and internationally to redesign, refocus and strengthen the services provided to families with young children, particularly those who are disadvantaged.

A systematic approach to antenatal care has been historically important in the reduction of maternal mortality rates, through early detection and improved management of high risk conditions. Such programs are usually made up of three quite distinct elements:

- The provision of information about pregnancy and childbirth generally,
- antenatal classes, and
- Screening of pregnant mothers (Lin, 2007).

Little research, however, has explored the role that universal health services play in collaborative models of service delivery for pregnant women, children and families, or indeed how care is coordinated across these services.

A model testing a home nurse visiting program in the US recognised the important role that Nurse home visitation plays with regard to antenatal care. The 25 year program showed considerable

promise for reducing some of the most damaging and widespread problems faced by low-income children families. The most important outcomes of this program related to the reduction in dysfunctional care of children and the improvement of the maternal life course. This review also revealed the functional and economic benefit of the nurse home visitation program was greatest for families at greater risk. It recommended that such programs should be targeted towards low-income, unmarried women and their children and warned that investment in universal services may lead to a dilution of services for those families that need them most (Olds, 2007).

Regardless of who provides a service, it is important to establish how these programs should be coordinated. An uncoordinated approach often leads to service providers and other organisations delivering inconsistent and conflicting health messages to the community. It also 'opens the door' for duplication of resources and 'reinventing the wheel' if programs fail to learn from each other (Lin, 2007).

Therefore, planning at the organisational, community and system levels will require senior managers and leaders to pay attention to collaboration and coordination across the myriad of public health strategies and programs.

A recent attempt in Victoria to develop a planned approach to child and family service delivery is demonstrated in the Best Start program. The aim of this initiative is to build partnerships and collaboration among various government agencies and service providers such as maternal and child health clinics, childcare providers, kindergartens (pre-schools), health services, schools and family support services.

For this program the Centre for Health Service Development researched the evidence for best practice in a number of child and family policy areas and highlighted the interventions where most gains could be made.

Particular areas of relevance for child and family health relate to:

- Increased rate of breastfeeding
- Decreased rate of women smoking during pregnancy
- Decreased rate of children exposed to tobacco smoke in the home
- Increased rates of immunisation
- Increased attendance at Maternal and Child Health.

Updating this research for NSW Health could be beneficial in developing a coordinated suite of interventions for child and family health locally in NSW.

Discussion

Strategies targeting child, youth and family health are mostly focussed towards the health promotion, prevention and investigation end of the Health Resource Group matrix. From a community health perspective most gains for child and family health can be achieved through a systematic and coordinated approach across the health sector. Selected interventions should be based upon best practice and targeted towards those families and their children that need them most.

Community nursing and domiciliary care

Background

Community nursing includes both general community nurses in home (domiciliary) visiting and specialists conducting services like nurse-led clinics focusing on chronic disease, child health, women's health, palliative care etc. Community nurses work with a population health focus in a variety of settings. They are involved in coordinating care in multidisciplinary environments (Keleher et al. 2007; Goodman et al. 2003).

In Australia, community nursing has encompassed the dual roles of community based clinical care and primary health care, providing health promotion, community development, health education and disease prevention within a framework that recognises the broad social, economic and environmental determinants of health (Kemp et al. 2005).

Community health services are major providers of community-based nursing services funded primarily through the Community Health and Home and Community Care (HACC) programs. The role of community nursing and domiciliary care extends across several health resource groups with opportunity for health promotion, prevention, treatment and continuing care. The focus of health care is rapidly shifting from hospital to community in the light of spiralling costs, an ageing population and increasing numbers of people living with a chronic illness. This has significant implications for the role of the community nursing and domiciliary care, challenging the primary health care and health promotion activities of community nurses and resulting in most time being spent in providing treatment and continuing care (Brooks et al. 2004).

Evidence

Limited academic literature exists on evidence based practice for community health nurses. This is simply because little research and evaluation has been undertaken, as research and publication has not historically been part of the role of community health nurses.

Brookes et al. (2004) published a critical literature review of the community health nurse (CHN) role internationally, with an emphasis on Australia. Community nurses in Australia are increasingly working in post acute care and aged and chronic care. Hospital based community outreach services have expanded and community nurses are well placed to take on the role of coordinators of care of elderly chronically ill patients. The role of the community nurse has diversified into specialist and generalist roles in the UK, USA and Australia. There is increasing tension and debate between specialist and generalist services (Brookes et al. 2004; Viney et al. 2001).

Models of community nursing delivery vary from country to country, with great variety in role titles, educational preparation and breadth of practice. The Scottish Executive (2006) of the NHS Scotland has compiled a report reviewing nursing in the community in Scotland. This report discusses several models of community nursing internationally. The community matron model in England with a focus on "at risk" target groups is contrasted with the Community Health Partnerships in Scotland, reflecting a shift away from the traditional 'extended general practice' model towards one embedded in a community development approach. Individuals, carers and health and social care professionals want a single point of contact with nursing services. There is a need to demonstrate clearly how nurses contribute to community services as members of multi-disciplinary, multi-agency teams. This is particularly the case in relation to public health. Promoting health is central to nursing practice, and must be approached from a public health perspective.

The Review identified seven core elements of nursing in the community that need to be promoted as foundations for practice:

- working directly with individuals and their carers
- adopting public health approaches to protecting the public
- coordinating services
- supporting self care
- multi-disciplinary and multi-agency team working
- meeting health needs of communities
- supporting anticipatory care (assessing risk, promoting health, preventing illness and understanding and addressing health inequalities).

All interventions carried out by nurses aimed to support adults and children in the community in relation to:

- Anticipatory care
- Managing long term conditions
- Managing hospital admission and discharge
- Supporting unpaid carers
- Reducing health inequalities
- The impact on patient outcomes when nurses use information technology.

These findings come from comprehensive analysis of systematic reviews and primary research of nursing interventions with a focus on the UK, North America, Europe and Australia. The key messages are that nursing in the community is largely hidden and buried and that there is insufficient evidence in some areas to determine impact on patient outcomes. However, patient's and carer's value the humanistic approach of nurses and nurses need to take on the challenge of making the "invisible" visible – more research using appropriate research methods is crucial (Kennedy et al. 2006).

Keleher et al. (2007) recently released a "Review of Primary and Community Care Nursing". Community health and primary care nursing is under-developed in Australia with a lack of national policy, limited education opportunities and little understanding of the evidence-base about outcomes or cost-effectiveness. It is in general practice and community settings that increasingly complex health care conditions are managed, with rapidly emerging needs for appropriately prepared case managers/coordinators of care. Internationally, nursing is undergoing changes in many countries with New Zealand, Japan, the US and UK enhancing the role of nurses in primary care.

One of the major findings of Keleher et al. (2007) is that there is modest evidence that, for care within the scope of nurses' practice, nurses in primary care settings can provide effective care and achieve positive health outcomes for patients similar to that provided by doctors. Nurse-led care may involve higher levels of patient satisfaction and quality of life than doctor-led care in primary care settings. Some studies suggest higher resource use with nurse led care. Schober (2007) discusses the role for the advanced nurse practitioners and reports that increasingly, evidence suggests that optimising nurses' contribution to health care by expanding their roles is an effective strategy for enhancing health care services. In Australia, primary health care settings have welcomed the ability of nurses to provide comprehensive services in rural and remote communities.

Assessment in the form of getting to know and knowing the patient, family and community is a fundamental intervention for nurses in the community. In addition, community nurses are often able to anticipate needs and prevent risks through health promotion and early intervention. The community nurse is also well positioned to establish collaborative working relationships with other health and social welfare providers.

The increasing pressures for community nurses to focus on treatment and chronic care create difficulties in balancing the curative and preventive aspects of work. Kemp et al. (2005) reviewed the changes in community nursing in Australia from 1995 – 2000. The major conclusion of this study was that community health care in Australia is shifting from primary to short-term clinical care. Greater opportunities for community nurses to engage proactively in defining and promoting their role in the health care system are needed in order to ensure an appropriate balance of acute clinical and holistic primary health care in the community.

Viney et al. (2001) prepared a resource document for health service managers seeking to implement or expand Hospital in the Home (HITH) provision in NSW. Every state and territory in Australia has some form of HITH program. HITH is a substitute for acute inpatient care that should be undertaken in a place of residence and two of these models rely on the input of community nurses e.g. hospital based programs providing services across the range of specialties where patients remain the responsibility of the hospital but services may be provided by both hospital staff and providers in the community (such as GPs, community nurses). The second model is where HITH operates as a community based program providing services across the range of specialties. Patients are the responsibility of the program provider (e.g. Division of GP, Community Health Centre, and Area Health Service) and services are provided primarily by providers in the community.

Gunn et al. (2007) systematically review the available evidence on the place of generalism within primary health care. The authors argue that a generalist approach delivers equitable, accessible, cost-effective care for patients. They also highlight the trend of devaluation of and reduced emphasis on generalism. Whilst the focus of this research was on GPs, many of the findings can be translated to community nursing.

Goodman et al. (2003) argue that the pressure to specialise that is evident in all developed countries underestimates the need in primary care for nurses to be able to maintain a flexible role that enables them to coordinate care and maintain continuity for people with multiple and ongoing health needs and, in addition, to give the direct specialist care that is so valued by individuals.

Nurse led walk in centres were first announced in 1999 and represent a new development in unscheduled care provision in the United Kingdom National Health Service. A systematic review found that walk-in centres are used particularly when other health services are closed. The problems presented are mainly minor illnesses and minor injuries. The very limited evidence available suggests that walk-in centres provide care of reasonable quality, but there is insufficient evidence to draw firm conclusions about the impact of walk-in centres on other healthcare services or the costs of such care (Salisbury and Monro 2002).

Hospital based interventions (mostly short-term assessment and/or liaison) had little overall effect on Emergency Department utilisation, whereas many interventions in outpatient and/or primary care or home care settings (including geriatric assessment and management and case management) reduced Emergency Department utilisation (McCusker and Verson 2006).

The role that community nurses take in supporting carers is reviewed by the Scottish Executive (2006) of the NHS in Scotland through evaluating thirteen qualitative and two quantitative studies which described the carers' perspective of community nurses and care provision/requirements. In the main these studies were conducted in Australia and Canada, with two being UK based. All were published in peer reviewed academic journals.

Discussion

The role of community nursing and domiciliary care is increasingly focused on the treatment and continuing care Health Resource Groups. This is being driven by the push to develop early discharge or hospital in the home type services for more acute patients. The role of the generalist nurse is being challenged by specialist nursing professionals focusing on aspects of chronic disease management.

In NSW there is a separation between adult and child services with community nurses primarily caring for adults. The more complex care required by community nurses is reducing the time they have available for health promotion and early intervention. The evidence on the impact of community nursing interventions on health outcomes is limited; however there is a growing body of evidence that demonstrates the cost effectiveness of community based as opposed to hospital based care.

Community rehabilitation

Background

Rehabilitation is the process of restoration of skills by a person who has had an illness or injury so as to regain maximum self-sufficiency and function in a normal or as near normal manner as possible. There is no commonly agreed definition or classification of community rehabilitation but for this project we can define “community rehabilitation” as that set of rehabilitation services and processes that are based in community, rather than hospital settings (Wade ,2003). Rehabilitation services are focused on the needs of people in the Continuing Care HRG.

Evidence

While the evidence base for rehabilitation overall is strong, the evidence on community rehabilitation is somewhat patchy, due to a lack of commonly agreed definitions and classifications of community rehabilitation. However, there have been a number of studies and reviews.

Hospital alternatives/early discharge

Powell (2002) reports on a well-structured randomised controlled trial in London looking at community based multidisciplinary rehabilitation after severe traumatic injury, and found that the program improved social functioning. It also seemed likely that the program was cost-effective in comparison to conventional hospital intervention.

Rudd (1997) used a randomised control trial to evaluate an early discharge scheme for patients with stroke in comparison with conventional hospital treatment. They found that this scheme is as effective as conventional hospital based care, with a significant reduction in hospital stay.

Heseltine (2001) reviewed nine controlled studies from the UK, Sweden and Australia to evaluate the effectiveness of community rehabilitation schemes designed to facilitate early discharge from hospitals. Findings were that early structured discharge appeared to result in cost-savings, mainly by reducing hospital length of stay.

Chronic disease sufferers

Siu (2004) evaluated a community rehabilitation service for people with rheumatoid arthritis in Hong Kong using a comparison group. Findings were that the treatment group achieved significant increases in self-efficacy of managing the illness, more increases in self-management behaviours, but no significant increases in the overall health status or health care utilisation patterns than the control group.

Lin (2004) examined a 12 month community based rehabilitation program using a public swimming pool in Sheffield for older adults with osteoarthritis of the lower limb and concluded that they gained modest improvements in measures of physical function, pain, general mobility and flexibility. Using a public swimming pool rather than a more expensive hospital hydrotherapy pool increased the reach of the program.

Service organisation

Wade (2003) argues that available evidence suggests that rehabilitation should always be given by a specialist community rehabilitation team with a range of expertise in:

- Assessing and managing common, usually not disease specific problems, such as pain secondary to poor posture
- Monitoring a patient’s disability
- Encouraging a patient back into a range of social roles locally

- Knowing all the resources available locally
- Knowing when to refer patients back to other specialised services appropriately
- Providing on-going support, for example by answering many of the questions of patients and families and providing practical and emotional support.

Discussion

The evidence points strongly to the opportunity to develop community rehabilitation services as an effective strategy to assist people with chronic injuries or disease in the community, and to provide services in the community to patients who are currently receiving rehabilitation type services as inpatients. The evidence suggests that community rehabilitation services are, at the very least, as cost effective as hospital based services and that they provide better outcomes for patients. They are directed to the continuing care end of the Health Resource Group framework.

Community rehabilitation services can also assist in improving the function of people outside the hospital. By being based in the community, they can find access to local resources (such as swimming pools in the example above) and can provide innovative and flexible ways of providing rehabilitative services to meet the needs of their patients.

The structure and roles of community rehabilitation services and how they integrate with other health and community services will be a key factor in determining their effectiveness.

Counselling and psychosocial services

Background

Psychosocial services can generally be described as counselling and support provided to individuals, families and groups. Psychosocial services are provided by a variety of health professionals, usually in multidisciplinary teams. These teams include Social Workers, Psychologists, and General, Drug and Alcohol and Bilingual Counsellors. Services are provided to clients who present with problems such as behavioural disorders, child management problems, domestic violence, or are in some form of crisis (Western Sydney Area Health Service, 1996).

Evidence

There is good evidence for the effectiveness of counselling and psychosocial services provided at a community level. A holistic approach to patient care is believed to improve health outcomes, increase patient and team satisfaction, reduce negative psychosocial reactions and help patients better come to terms with their experiences (Boivin et al. 2001).

A review of counselling for depression in primary care (Rowland et al. 2001) suggested that patients who received counselling were more likely to have improved psychological symptom levels than those who did not receive counselling. Problem-solving therapy (PST-PC), interpersonal psychotherapy, and pharmacotherapy would be considered efficacious interventions for major depression, with cognitive-behavioural and cognitive therapy considered possibly efficacious in a primary care setting (Wolf and Hopko, 2008). A recent review of the effectiveness and cost effectiveness of counselling in primary care (Bower & Rowland, 2008) found improvements only in short term outcomes and, while some health care utilisation may be reduced, counselling did not seem to reduce overall health care costs.

The cost analysis of Project TrEAT (Trial for Early Alcohol Treatment), a randomised study of physician-delivered brief interventions, showed substantial improvements in drinking outcomes and substantial savings for society and health systems (Fleming et al. 2000). The addition of basic counselling to substance abuse treatment (methadone) has been associated with major increases in treatment efficacy and the addition of on-site professional services was even more effective (McLellan et al. 1993).

Samet and colleagues (2001) discussed two models of linked primary medical care and substance abuse services. The authors argued that a centralised services model improves patients' access to services, improves treatment and social outcomes and reduces relapse. A distributive model, involving effective referral to medical and mental health services from a primary care setting, can overcome the cost and resource issues involved in a centralised model as well as cater for patients who may have problems with hazardous substance abuse, are medically ill, refuse formal treatment or are minimally motivated and only want harm reduction interventions or are undergoing medical addiction treatment (Samet, 2001).

Community counsellors and providers of psychosocial services often see disadvantaged, vulnerable and marginalised members of the community and face a range of complex issues when working with this group. Access to an integrated intervention provided by a broad range of health services is often the most effective.

A health promoting counselling model for Indigenous clients could be based on cultural values and perspectives, however, employing these values and perspectives entails an understanding that a contemporary conception of Indigenous mental health contains two components: mental health as wellness and mental health as a process of healing (Stewart, 2008).

Counselling and psychosocial services are often required in a wide range of health care situations and there is evidence for the effectiveness of these services for a number of vulnerable groups and individuals in the community. These include victims of trauma, refugees, the homeless, people with an intellectual disability, survivors of child abuse and individuals with a chronic or life limiting illness. The following is not an exhaustive review of all such groups but are examples of the effectiveness of counselling and psychosocial interventions for some of these groups.

It is essential to offer counselling to victims of sexual assault, even if it is not wanted at the time, there may be future consequences of the assault and victims need to know where they can go for help (Mein et al. 2003). Adult mothers who are survivors of sexual assault may have difficulty in relating to their children and may benefit from therapeutic services that address the process in the transmission of trauma and difficulties in mothering (Noak & Baraitser, 2004).

Women in prenatal care who report receiving health promotion or psychosocial services also report receiving better interpersonal care and rate their satisfaction with care higher, in addition, receiving either type of support service is associated with higher quality communication, decision-making and interpersonal care (Korenbrodt et al. 2005).

Eagar and colleagues (2007) reviewed international evidence on carer needs and interventions and found evidence suggesting that psychosocial interventions for carers and their families can be effective, particularly those that are theory-based with a coherent and explicit rationale, that include family therapy and use a problem-solving and acceptance style of coping.

Bramsen et al. (2008) evaluated a face-to-face psychosocial screening intervention for cancer patients and found that half the screening group actually wanted counselling and that at follow-up, the screening group reported significantly less pain, better mental health and better physical and role functioning than the usual care group. Male cancer patients often access psychosocial services at a lower rate than female patients however Manii and Ammerman (2008) found that men were interested in attending an information intervention that included relevant topics.

Discussion

Counselling and psychosocial services are essential components of a broad range of community and primary health care services. Within the Health Resource Group framework, there is evidence of the value of counselling and psychosocial services from the point of early detection through to continuing care. There is a need for dedicated services, that give access to counselling and psychosocial services to disadvantaged and other specific groups of people for a wide range of problems and issues. In particular, groups and individuals who may not attend a primary care physician due to social and financial issues still need access to these services. There is good evidence for the provision of counselling services in a primary care setting, however, this must be supported by an effective referral and patient management system.

Drug and alcohol

Background

It is very difficult to measure the social costs of alcohol and other drug misuse. Drugs have a major impact on crime, violence, family life and work. Drug and alcohol misuse are also a major cause of chronic sickness and death across Australia. Alcohol, tobacco and illicit drugs have been associated with over 80 recognised disease and injury conditions. Tobacco is linked with chronic disease with a high risk of mortality, alcohol is linked to acute disease with and without high risk of mortality, and illicit drug use is connected with infectious disease, to suicide and to drug disorders (Rehm, 2006).

In terms of mortality, a comprehensive report by the AIHW revealed that there were 23,313 drug related deaths in Australia in 1998. Of these 19,019 were tobacco-related, 3,271 were alcohol related and 1,023 were illicit-drug related (Ridolfo & Stevenson, 2001).

In terms of the treatment end of the HRGs, findings from the National Minimum Data Set on alcohol and other drug treatment services in Australia revealed the following:

- 633 government-funded alcohol and other drug treatment agencies provided 147,325 closed treatment episodes between 2006 and 2007
- the medium age of the persons receiving treatment was 31 years
- two-thirds of the clients were male
- when all reported drugs are considered, more than half (57%) of all episodes included alcohol as a drug of concern and 44% of episodes relate to cannabis as a drug of concern
- nationally, counselling was the most common form of treatment (38% of treatment episodes), followed by withdrawal management (17%) and assessment only (15%) (AIHW, 2008).

Evidence

Interventions addressing drug and alcohol abuse are targeted at each area of the Health Resource Group framework. In relation to children and adolescents, a recent Australian review (Lubman et al. 2007) concluded that health promotion, prevention and early intervention programs for substance use should aim to:

- delay the onset of experimentation
- reduce the number of young people who progress to regular or problem use, and
- encourage current users to minimise or reduce risky patterns of use.

This approach is consistent with the harm minimisation focus of Australia's national drug policy which involves implementing strategies to minimise the harmful effects of drug use for individuals and communities (Loxley et al. 2004).

Health promotion/prevention and early intervention programs can be either universal, family or school based. Universal health promotion strategies such as media campaigns are important in reducing the more prevalent harm of tobacco or alcohol use, however a more targeted approach is required for high risk children to prevent the harm associated with illicit drug use (Loxley et al. 2004).

There is strong support in the literature for family-based interventions, based on the principle that competent parenting provides a protective context for adolescent development (Kumpfer and Alvarado, 2003; Loveland-Cherry, 2005).

School-based programs can also be effective if they are interactive and skills based (Cuijpers, 2003; Faggiano et al. 2008) and build social competence (Toumbourou et al. 2007). However, the effectiveness of school-based interventions can be enhanced by adding a family-based component, such as homework or assignments requiring the parent to work closely with the child. (Kumpfer and Alvarado, 2003; Loveland-Cherry, 2005).

There is general agreement in the literature that it is best to intervene before substance use becomes established, and if possible before initiation of use (Wagner et al. 2004). Strong evidence exists for programs delivered to pre-teen and early adolescent children, and the transition from primary to secondary school appears to be a good time to intervene (Petrie et al. 2007). Australian reviewers Loxley and colleagues (2004) recommend a protection and risk reduction approach that addresses early childhood development as well as older age groups.

Effective programs have these key features (Petrie et al. 2007):

- They develop strategies to involve adolescents in family activities, maintain good relationships, develop social skills, reinforce a sense of personal responsibility and manage conflict. That is, they have a broad approach, rather than just focusing on substance abuse.
- Parents are actively engaged as participants.

Problems associated with the use of alcohol and other drugs are generally more related to; intoxication, regular use and/or dependence. Interventions for these issues are more aligned with investigation, treatment and continuing care. Interventions at this end of the HRG matrix are best tailored to the type of problems experienced or the nature of the risk to which the individual is exposed.

As is the case for children, harm minimisation is an important principle in the management and intervention of alcohol and other drug problems. From this perspective abstinence may not be the highest priority, rather emphasis is placed upon reducing as many problems as possible associated with alcohol and drug use (National Centre for Education and Training on Addiction Consortium, 2004).

There is evidence to suggest that targeting programs at individuals or groups with a higher number of risk factors in settings such as disadvantaged areas, family crisis, police and court contacts and mental health is more successful.

There is also evidence that broad-based health promotion interventions delivered by primary care health professionals such as GPs and occupational health workers are effective. In these cases, brief interventions in primary care over one to four sessions have been found to be effective in reducing alcohol consumption. These sessions take place within the time-frame of a standard consultation of 5 to 15 minutes, longer for a nurse (Kaner et al. 2007). These interventions are most effective when they are delivered early to people at risk of developing problems (screening and assessment).

For those patients with established patterns of harmful or dependent drug use the main factor that predicts good outcomes is retention in treatment. In these cases longer-term interventions are more appropriate and may be tailored for dependency or problematic usage (NSW Department of Health, 2007). Examples of interventions at this level include withdrawal management (detoxification) and counselling.

Discussion

There is an emphasis in the literature on the importance of harm reduction and reducing the known developmental risk factors that lead children and young people to become involved with risky drug use and harm. In particular, early prevention strategies targeted to high risk children and adolescents are most effective. This is particularly pertinent to children in families with drug-using parents in order to break inter-generational patterns of drug use. Effective treatment and continuing care services require strategies for retention in treatment and relapse prevention.

Health promotion

Background

A strong public health-oriented strategy offers the most sustainable way to address current health inequalities and prevent chronic non-communicable diseases (Russell, Rubin and Leeder, 2008). Health promotion initiatives have great potential to reduce the burden of disease in the community if they are evidence based and implemented effectively and sustainably.

Evidence

Smoking, nutrition, alcohol and physical activity are the major preventable risk factors for chronic diseases in Australia and throughout the Westernised world (AIHW, 2006). Both GPs and community health services are well placed to provide health promotion interventions and programs in these areas. GPs often have contact with large segments of the population through multiple contacts with patients and their families, providing opportunities for interventions to improve health behaviours for lifestyle risk factors, provide advice and assistance with behaviour change, monitor progress overtime and refer to community support programs if required. Community health services not only provide community based clinical care but have also traditionally provided health education, have had strong links with community support programs and may reach disadvantaged individuals and other segments of the population who have poor contact with general practitioners (submission to the review by NSW Health).

The “Smoking, Nutrition, Alcohol and Physical Activity” (SNAP) program is delivered in a primary care setting and aims to help clients in making positive lifestyle changes through supporting self management knowledge and skill, providing social support and increasing self efficacy (Harris et al. 2005). The program is currently being adapted for use in a community health setting (Laws et al. 2008).

A recent review by the Australian Primary Health Care Research Institute (APHCRI) found that there was a gap in programs aimed at reducing overweight and obesity in young children (Hearn et al. 2006). The authors identified eleven promising interventions being used around Australia that focused on the engagement of primary health care providers, enhanced parent participation, promotion of a broader population based approach and encouraging primary health care providers to become involved in more upstream activities.

Schools are an accessible and amenable setting for implementing health promotion initiatives for children. Prevention efforts that aim to promote good health behaviours are often most effectively implemented with younger populations with the aim of avoiding or delaying disease in later life.

The Health Promoting Schools framework (WHO, 1995) has been used successfully to implement a broad range of health promotion initiatives in the school setting (Mitchell, Price and Cass, 2005). The National Health and Medical Research Council recommends the Health Promoting Schools framework as the basis of practice for health promotion in the school setting (National Health & Medical Research Council, 1996). Cass and Price (2003) used the health promoting schools framework to develop a successful program to increase the physical activity levels amongst girls at a government school.

Physical activity has also been promoted for children in out of school hours care (Sangster et al. 2008) and resulted in an increase in children’s participation in vigorous activity as well as an increase in services providing planned physical activity programs.

Cass, Price and Rimes (2005) evaluated a school health promotion grants scheme and found that the program helped develop partnerships between health, education sectors and schools,

encouraged schools to adopt a whole-school approach to health issues, and supported the development of subsequent health focused initiatives.

Sun protection is another aspect of health promotion in the school setting. Experts agree that exposure to the sun increases the likelihood of developing cancer and that overexposure to the sun during childhood is a risk factor for later development of skin cancer. A recent review by Bellamy (2005) found that sun protection knowledge, attitudes and behaviour can be improved by a wide range of educational interventions in different settings.

Falls in elderly people can cause suffering, disability and sometimes death and can be costly to the health system. Falls prevention initiatives have the potential to reduce the likelihood of an elderly person falling, particularly in their homes. Nandy et al. (2004) describe the development of a tool for identifying individuals who may be at higher risk of falls and appropriate interventions. One particular program "Stepping On" (Clemson et al. 2004), successfully used a multifaceted community-based program using a small-group learning environment to reduce falls among elderly participants.

Men's health promotion has been given some prominence in relation to issues around suicide and older men. The Wollongong Men's Project (WMP) grew out of a needs assessment conducted during 2002-03 that revealed high levels of depression, idleness and poor self esteem among participants (Cass, Fildes and Marshall, 2008). The project provided group centred opportunities for unemployed men from CALD backgrounds and has supported the development of strong support networks among the participants that has benefited their mental health.

Discussion

There is good evidence for the implementation of interventions aimed at reducing chronic diseases and cancer through health promotion efforts. Programs aimed at reducing the prevalence of smoking and the misuse of alcohol as well as the improvement of nutrition and physical activity levels can be effectively implemented in both primary care and community health care settings. There is evidence for nutrition and physical activity health gains for children and young people. In particular physical activity programs can be implemented in schools using the Health Promoting Schools Framework, although there is also evidence for programs that increase physical activity outside of school hours and the school setting. Sun protection initiatives in the educational environment also have the potential to provide health gains at a population level later in life. In addition there is good evidence that initiatives in falls prevention have the potential to protect elderly people from the burden of suffering caused by falls and reduce costs to the health care system. There are also promising initiatives in the area of men's health. There is good evidence that a wide range of health promotion activities undertaken in both a primary care and community health setting has the potential to improve health at a population level and reduce costs to the health care system.

Hospital demand management

Background

Hospital-at-home (HAH) programs have been trialled increasingly in a number of countries including Australia and the UK. Although the specific objectives of these programs vary, HAH programs provide home-based medical and/or nursing care for people who would otherwise be admitted to hospital (Corrado, 2001). The aims of these programs are to reduce the pressure on hospital beds and minimise the high costs of maintaining patients in acute hospitals (Coast et al. 1998). This is usually achieved by reducing the number of avoidable hospital admissions and/or facilitating the early discharge of patients by providing appropriate levels of home-based care. A key criterion for evaluating the effectiveness of these programs is that they provide at least the same level and quality of care as routine hospital care.

The precise nature, aims and scope of HAH programs vary across different health care systems. However, they can be grouped into the following three categories:

- **Early Discharge Programs:** these programs aim to facilitate the early discharge of hospital inpatients, and subsequently reduce Length of Stay (LOS), through the provision of home-based services.
- **Hospital Avoidance Programs:** these programs aim to reduce the number of people who are admitted to hospital from the Emergency Department (ED). This is achieved by providing appropriate home care as an alternative to hospital admission.
- **Emergency Department (ED) avoidance programs:** these programs aim to reduce the number of ED presentations from the general community (e.g. GP and self referrals) by providing home care as an alternative to hospital admission.

The following sections briefly review the evidence for each of these programs in terms of outcomes at a patient (e.g. clinical outcomes, satisfaction) and provider level (e.g. costs).

Evidence

Early discharge programs

Several randomised controlled trials have examined the efficacy of Early Discharge Programs on patient LOS, clinical outcomes and costs. For example, Brooten et al. (1994) conducted a trial of Early Discharge Programs for 61 postpartum women. The results demonstrated that compared with routine care, HAH care was associated with greater patient satisfaction and a 29% decrease in health costs, with comparable outcomes for maternal and baby health (Brooten et al. 1994).

Coast and colleagues (Coast et al. 1998; Richards et al. 1998) compared the clinical outcomes and costs of HAH care and routine hospital care. A total of 241 primarily elderly patients (i.e. > 65 years) admitted for orthopaedic procedures were randomised into routine hospital care and HAH care. There were no differences between the two groups in terms of mortality, functional ability or quality of life at three months follow-up (Coast et al. 1998). Although the HAH group had a longer LOS (Coast et al. 1998), it was only 75 per cent of the expense of routine care (Richards et al. 1998).

Anderson et al. (2000) compared home-based rehabilitation care and routine hospital care for 86 stroke patients with an average age of 72 years. At six months follow-up, there were no significant differences in re-admission rates, mortality or physical and psychological outcomes between the two groups. However, home-based rehabilitation had a significantly shorter LOS compared to routine hospital care (15 days versus 30 days).

Davies et al. (2000) examined hospital-at-home care for 150 elderly patients (mean age 70 years) admitted for chronic obstructive pulmonary disorder. At three month follow up, readmission and mortality rates were similar for patients randomised into the hospital-at-home and routine care groups.

Hardy et al. (2001) conducted a trial of a hospital-at-home model of care for 149 patients primarily elderly patients (> 75 years) admitted to hospital from the Emergency Department. The clinical outcomes for this group were compared with a matched historical control group. The results indicated that readmission rates were similar for HAH and routine care, whilst the average LOS in hospital was shorter for HAH patients (1.7 days versus 6.3 days).

Crotty et al. (2002) examined the clinical outcomes associated with HAH care for elderly patients (> 65 years) admitted because of stroke, limb fracture or joint replacement. Sixty-six patients were randomised to HAH and routine care. There were no differences in re-admission rates or patient satisfaction at four months follow-up. The HAH group had a longer LOS, but reported greater physical independence.

Harris et al. (2005) investigated the impact of a HAH model of care on health outcomes and health services costs. The HAH model consisted of a program to prevent hospital admission from the ED and another program which aimed to facilitate the early discharge of patients from the hospital. A total of 285 patients aged 55 years and over were randomised to these two programs. At three months follow up, there were no differences in health outcomes between the HAH and routine care groups, however HAH patients reported significantly greater levels of satisfaction. The costs of the HAH program incorporated the costs of hospital care, home care, community services and GP involvement. The results indicated that the costs of HAH were double the cost of normal care.

In a systematic review of studies of hospital at home programs, Shepperd et al. (2008) found that when the outcomes of patients were compared with hospital inpatients, there were no significant differences on measures of functional ability, quality of life, and cognitive ability. There was some evidence that hospital at home patients fared better than inpatients; they had significantly lower mortality after 6 months, and reported higher satisfaction with care. Economic analyses (two were included) found that when the costs of informal care were excluded, hospital at home was less expensive than acute hospital care.

These studies indicate that HAH programs are effective in facilitating the early discharge of patients from hospital. The level of health care is safe and at least comparable to routine hospital care. Patients and their families also report greater levels of satisfaction with these programs compared to routine hospital care. However, data on the costs incurred by these programs relative to routine care are mixed.

Hospital avoidance programs

Similar to Early Discharge Programs, several studies have evaluated Hospital Avoidance Programs. For example, Caplan and colleagues (Board et al. 2000; Caplan et al. 1999) examined a service at the Prince of Wales Hospital where one hundred elderly patients in the ED who were eligible for admission were randomised into hospital at home care or routine hospital care. These patients were diagnosed with common chronic conditions such as pneumonia and cellulitis. The results indicate that the mortality rates, complications, and unplanned readmissions were similar for both the hospital-at-home and routine care. However, the home treatment group had greater patient and carer satisfaction (Caplan et al. 1999). Furthermore, the average cost of hospital-at-home care was almost half the cost of routine care, with similar clinical outcomes (Broad et al. 2000).

Nicholson et al. (2001) conducted a pilot study examining the clinical outcomes and cost of a hospital avoidance program at Mater Adult Hospital and Princess Alexandra Hospital in Brisbane. A total of 25 patients aged 45 years and over with chronic obstructive pulmonary disease requiring hospital admission from the ED participated in this trial. The results indicated that clinical

outcomes and satisfaction levels were similar two weeks post-discharge, with the costs of hospital-at-home care being significantly less than routine hospital care.

Leff et al. (2005) also examined clinical and functional outcomes, patient satisfaction and costs of a hospital at home model of care using a historical control group. Eighty four patients aged 65 years and over with chronic conditions such as pneumonia, heart failure, chronic obstructive pulmonary disease and cellulitis received hospital-at-home care. Compared to the 73 control patients, hospital at home patients had fewer days of care (3.2 versus 4.9 days), fewer clinical complications and greater patient and family satisfaction. The costs of hospital at home care were also approximately 30% less than routine hospital care.

These results indicate that hospital at home Hospital Avoidance Programs are at least as effective as routine hospital care in terms of patient outcomes, mortality rates and readmission rates. However, given that these programs have been trialled on small samples, there are currently no comprehensive data on whether or not these programs lead to a global reduction in inpatient admissions from the ED.

Emergency Department avoidance programs

The number of studies examining ED Avoidance Programs is very limited. Shepperd et al. (1998, b) examined ED avoidance programs where patients were referred from primary care (e.g. a GP) or from the hospital. Unfortunately, the results were inconclusive and it is not clear whether the program led to a reduction in hospital admissions from the general community. There was some evidence that hospital at home care was more expensive than routine care.

Wilson et al. (1999) investigated the impact of a hospital at home program on patient outcomes in 199 patients. Patients were referred to the hospital at home program from their GPs as an alternative to routine hospital care. These patients were then randomised to hospital at home care or routine hospital care. At three months follow-up, there were no differences in mortality rates or re-admission rates between these two groups. However, the hospital at home group had a significantly lower LOS.

Westera et al. (2007) evaluated the NSW SAFTE Care Program and concluded that selecting the right patients is fundamental to the success of these types of programs. The authors suggested that the features of a service should include:

- Early detection of problems and the ability to rapidly respond
- Resources to provide a comprehensive package of care and support services, and diagnostic and clinical care are needed
- Need for flexibility to enable clients to access services wherever they present in the health system
- Services should have the following elements: multidisciplinary team; work in partnership with the broader community care sector; preventative health and/or rehabilitative focus and established links with potential referrers.

One of the major challenges facing this specific type of program is that it is very difficult to accurately determine or estimate the number of hospital admissions that were ultimately avoided because of the program. For example, it cannot be assumed that all patients referred to these programs would have otherwise ended up being admitted to hospital.

Discussion

The evidence reviewed above indicates that hospital at home programs provide a level of care that is at least equivalent to routine hospital care in terms of clinical outcomes, patient satisfaction and safety. Most programs have been effective in reducing the average number of acute bed days per hospital and the number of acute hospital admissions from the ED. The evidence for the cost

effectiveness of hospital at home programs is mixed; some studies indicate that these programs are up to 50% less expensive than routine hospital care, whilst others demonstrate that the programs are much more expensive than routine care.

It should be noted, however, that the objectives and outcomes, delivery, patient characteristics and the context within which it is implemented, have varied considerably between different hospital at home programs. For example, the goals of these programs range from attempting to reduce hospital costs, minimising bed block, improving clinical outcomes for patients and/or preventing avoidable re-admissions. Thus, the definition of a successful program or a good outcome varies considerably and this must be considered in the context of the present evaluation. Furthermore, the patient groups have typically been homogenous and limited to a single case mix (e.g. cardiac patients) for a specific age range (e.g. 65 years and over). The precise measures and outcome data collected in program evaluations also differ. These factors make it difficult to directly compare findings across different evaluations of different hospital at home programs.

In summary, the evidence indicates that hospital at home programs are generally effective in facilitating the early discharge of acute patients, preventing avoidable re-admissions and providing a safe alternative to routine hospital care. In terms of the HRG framework they focus on the treatment and continuing care end of the spectrum as they substitute hospital based acute care with home based acute care.

Intake and initial assessment

Background

This stream is relevant to the early detection and investigation, as well as the continuing care HRGs. For continuing care, a patient may be entering a primary care service for the first time after an acute event or have a long-standing condition and be referred for assessment when the severity or complexity of their condition increases, or the goal of care has changed. Intake screening is designed to be used to differentiate between people who:

- Have no problems and need no services;
- Have minor problems (i.e., low need), need some services (e.g., meals, home maintenance), but do not need a full comprehensive assessment;
- Have medium to high needs and require a full assessment.

Seven different types of assessment have been identified (Eagar et al. 2005) and are shown in Figure 2. These are not mutually exclusive with some assessments being a mix of two or three types. Initial assessment systems are usually established only for adults, with most children referred for service being directed straight to a specialist assessment.

Figure 2 *Types of assessments and their different purposes and outcomes*

Type	Scope	Purpose/outcome
1	Determine eligibility	(1) Eligible or (2) Not eligible (may include referral elsewhere for a more appropriate service) Proceed to another type of assessment
2	Shallow and narrow assessment of need	Determine next steps, including any other assessments required (initial action plan) Prompt further assessment
3	Shallow and broad assessment of need	Determine next steps, including any other assessments required (initial action plan) Prompt further assessment
4	Deep and broad assessment of need (comprehensive assessment)	Care planning, potentially including clinical interventions
5	Deep and narrow assessment of need (specialist assessment)	Care planning, potentially including clinical interventions
6	Assessment of need for a specific service (service specific assessment)	Agency-specific service plan
7	Determine the relative priority of consumer need(s)	Priority rating derived from other assessments

Evidence

Reviews of screening and assessment tools in primary care have been completed for a number of development projects (Owen et al. 2001). These tools are reviewed below and mostly relate to screening people living in the community who are seeking access to basic community health and support services. As a result they tend to have a broad focus that includes common problems in primary care, as well as screening for functional deficits that are common across many conditions.

A paper by Fleming et al. (1995) describes measures of physical and psychosocial function to detect problems and enhance the care of elderly persons. Key areas for review include activities of daily living, mobility, cognitive function, vision, hearing, continence and nutrition. Screening for

depression and alcoholism is also recommended and evaluation of the well being of the primary carer is recommended for some elderly people.

The assessment of the personal functional status of older persons in the OARS Multi-dimensional Functional Assessment Questionnaire (OMFAQ) includes basic demographic data, social resources, economic resources, mental health, physical health, and activities of daily living (Duke University, 1978).

In the Australian context, Byles (2000) noted the components most commonly included in health assessments. These included the following: height/weight, blood pressure, vision/hearing, teeth or oral examination, balance and gait testing, medications, activities of daily living, instrumental activities of daily living, functional status, medical problems, nutrition, alcohol, smoking, exercise, depression, cognition, social support, service use and home environment.

Screening the right people for further assessment is a key entry point function. Maly et al. (1997) evaluated the clinical performance of simple screening instruments in selecting older people for outpatient comprehensive geriatric assessment. Indicators for the need for comprehensive assessment were listed as screening measures for depression, urinary incontinence, falls and functional impairment. These issues were used as they are common in community based samples, are potentially treatable and are often overlooked by the medical profession.

A review of evidence was used in the development of a screening tool to meet new legislative requirements in the UK. The legislation introduced a compulsory annual health check for people aged over 75 by their GP (Donald, 1997) in a similar way to that used by the Australian general practice assessments (Royal Australian College of General Practitioners, 2000).

The domains seen as important for screening are outlined in the list below. They are relevant to gathering information relating to the delivery of care:

- Perceived health and well-being
- Individual needs, goals and satisfaction with care
- Confusion, behaviour and depression
- Vision, reading, hearing and chewing
- Instrumental and personal activities of daily living
- Housing finance and carer support
- Sensory function
- Mobility
- Mental condition
- Physical condition
- Continence
- Social environment
- Use of medicines

The American Health Maintenance Organisation (HMO) Workgroup on Care Management gave a preliminary list of items for inclusion in a screen for high risk clients (HMO Workgroup, 2000). This is an important consideration in more ongoing needs identification because screening tools are often seeking to prompt further action at the assessment or referral level. The items that were most relevant to practical interventions were again, only partially related to functional status and included: physical inactivity; depression; falls history; urinary incontinence; medications (poly-pharmacy) and under-nutrition.

Discussion

An effective intake and initial assessment system is required across the whole HRG spectrum from early identification through to continuing care.

The strategy of improving tools for collecting data and allowing monitoring and evaluation has been a long-standing community health goal. The aim has been to develop information tools to support a primary care service system that allows providers and professionals to work together, and coordinate their response to consumers who need a number of different services (Department of Human Services, 2001). This evidence has been used in the development pathway for the Ongoing Needs Identification (ONI) suite of tools (Eagar et al. 2002; Queensland Health, 2003).

There is evidence to suggest that current practices of screening and needs identification will be improved by the adoption of more standardised data items and formal processes for measuring function and other consumer characteristics. This evidence is based on research that has a long history in geriatric medicine and rehabilitation, and the domains of functional dependency and the best ways of measuring them are well understood in the literature (Eagar et al. 2001). More recent evidence suggests that valid and reliable serial functional assessments promote early intervention and proactive care planning, and in addition, they can indicate an individual's rate of decline and prognosis (Bell-Irving, 2004).

“Current research into the role of functional assessment in old age medicine has rested in the domains of geriatricians and geriatric psychiatrists. It has yet to be determined what functional and economic gain, and tertiary prevention, can be achieved if functional assessment is a regular part of primary care medicine. This is a new area for primary care medical research.” (Bell-Irving, 2004).

Mental Health

Background

Mental health problems and disorders account for a significant burden of disease within the community. The development and investment in community mental health care in Australia in response to the deinstitutionalisation of mental health care services has enabled many individuals affected by mental health problems and disorders to live better quality lives with a greater participation rate in the community. That said, there is still much room for improvement in the mental health care system.

Evidence

The National Action Plan for Mental Health 2006-2011 (COAG 2008) outlines four main outcomes of the plan include reducing prevalence of mental illness, reducing risk factors for mental illness, improving early access to services and improving community participation. These outcomes provide a guide for assessing evidence.

There is good evidence to suggest that the mental health of individuals, particularly those with depression and anxiety disorders, can be effectively managed in a primary care setting (Moulding et al. 2007; Bortolotti et al. 2008; Wolf and Hopko, 2008). A meta-analysis by Bortolotti and colleagues (2008) looked at the effectiveness of psychological treatments in a primary care setting. Results showed that psychological intervention is more effective than usual GP care and leads to outcomes that are comparable with those associated with antidepressant medication. Moulding et al. (2007) reviewed the effectiveness and cost effectiveness of psychological treatments in a primary care setting. The evidence showed that GP delivery of problem-solving therapy for depression is superior to usual treatment and equivalent to treatment with antidepressant medication. In addition there was good evidence for the effectiveness and cost effectiveness of psychological therapies delivered by a psychologist and for collaborative interventions for mental health in primary care.

Evidence suggests there is also value in reconfiguring general practice systems to increase referrals, implement care teams, improve IT use and provide care management as early as possible (Christensen et al. 2006). Moulding et al. (2007) argued that there is good evidence for the support of collaborative interventions in primary care. The workforce should be optimised through use of alternatives such as counselling and telephone support, use of NGOs and training other health professionals (Christensen et al. 2006).

Access to services continues to be an issue for many individuals, particularly those in rural and remote areas or Indigenous peoples. Tele-health is a promising technological advancement for rural and remote areas that appears to have improved access to services and broadened the range of interventions available; however, training, extending the service to more locations and improving emergency response capacity will improve the service (Robinson et al. 1999).

Another aspect of the access to service issue relates to the location of community mental health teams. These services need to be sited in readily accessible locations that are chosen to minimise stigma amongst client groups. Community mental health may be generalist in focus with service delivery structured to meet the needs of acutely ill adults, or specialist in nature such as specialist mental health services for older people or specialist child and adolescent mental health services. Community teams work hand in glove with hospital based services but do not need to be located on hospital sites. The literature supports community locations for community mental health services and there is growing evidence of good patient outcomes from mental health services that are community based or mobile styled "outreach" services (Geller et al. 1995, Hault et al. 1984, Kent et al. 1995 and Stein et al. 1980).

The recent focus for capital development in NSW Health has been on bricks and mortar to house additional acute and non-acute mental health beds. The majority of these developments have been co-located on existing hospital sites, frequently for economic reasons as opposed to best clinical practice (NSW Health, 2004).

In order to ensure the best health outcomes, health services must be provided as efficiently and effectively as possible, this includes making sound capital investment decisions so that services are delivered in the right location and using the best model of care (NSW Treasury, 2007). For mental health services, a sound capital investment strategy will inevitably include community based services, whether for crisis management, supervised residential care, community respite, child and adolescent day programs etc. Rosen et al. (2008) summarise what needs to be done:

“The balance between hospital and community health care needs reconceptualising into a new paradigm, This replaces the hospital centrality of public health care services, which provides only secondary outreach to the community to a limited extent, with a shift to community-centered services becoming the predominant public health care modality, with in-reach to hospitals only when necessary. This will require a parallel shift in health funding and management, to basing health-care senior management in community settings, providing much more substantial and stable funding for community health services, as they become the centre of decision making of the public health care enterprise.” (Rosen et al. 2008, p. 26)

The implementation of the Regional Aboriginal Integrated Social and Emotional (RAISE) Wellbeing program (Fuller et al. 2005) found that agreed care-management processes and training in cross-cultural mental health is needed to support Aboriginal mental health initiatives to develop a sense of collective efficacy. There is also a need for effective use of data to communicate the value of programs for Indigenous peoples. Long term structures and goals need to be put in place to support Aboriginal mental health initiatives as well as addressing staffing, funding and resourcing issues (Fuller et al. 2005).

People with mental illness living in the community and accessing community care services may face a number of problems. Stigma and fear, access to services and gaining appropriate care. Systema et al. (2002) conducted a study in response to criticism that community based psychiatric care would result in more frequent re-hospitalisation and a revolving door pattern of hospital care that does not benefit the patient or their families. The authors found that length of stay was increased in regions where there were more hospital beds available and that rehospitalisation was not higher in community based care systems, especially in regions where there was a high focus on intensive community based care. Readmission was most associated with a history of previous admission and high use of both inpatient and community-based services (Systema et al. 2002).

Integrated social and medical care with case management programs may provide a cost effective approach to reduce admission to institutions and functional decline in older people living in the community (Bernebei et al. 1998).

Challis et al. (2002) evaluated an intensive case management model for older people with dementia in a community based mental health service for older people. At the end of the second year of evaluation 51% of the experimental group remained at home compared to 33% of the control group. Although there was increased costs for the experimental group there were significant improvements in social and personal aspects of need for patients and carers. The authors argued that the benefits of intensive case management should be aimed at a specific target group who are most likely to benefit from the intervention.

A Japanese study found substantial reductions on suicide mortality among older men and women (73% and 76% respectively) from a long term implementation of a program aimed at older people including screening for depression, follow-up with mental health care or psychiatric treatment and health education on depression (Oyama et al. 2004). Beautrais (2006) argued that the best evidence relating to suicide prevention points to targeted interventions that focus on those at most

risk of suicide including those who have made previous attempts and have long term elevated risk for suicide as well as individuals whose psychosocial and/or mental health outcomes put them at a higher risk for suicide.

Large et al. (2008) studied the rates of homicide due to mental illness over 50 years on the UK and found that after the 1970's there was a reduction compared to other homicides. They argued that the most likely explanation was the improvements in treatment and organisation of services for the mentally ill.

People with mental health problems and disorders may also find it difficult to obtain and maintain housing. Muir and colleagues (2007) evaluated the Housing and Accommodation Support Initiative (HASI) which provides permanent social housing, long-term accommodation and community participation support and active mental health case management for people with complex mental health problems and high levels of psychiatric disabilities. This was a two year longitudinal study involving 633 interviews and surveys with HASI stakeholders, family members, consumer advocates and project governance staff. Outcomes included the provision of secure and affordable housing, an increase in community participation, improved physical health, improved psychological wellness, reduced hospitalisation rates, increased connection with community mental health services and a high rate of improved family connectedness (Muir et al. 2007; Dadich and Fisher, 2008).

Discussion

Effective mental health interventions are required across the whole HRG spectrum from health promotion through to continuing care.

Significant gains can be made in the primary care setting through collaborative care initiatives that support the GP in providing and coordinating care for patients with mental health problems and disorders and optimise the use of allied health professionals and alternatives such as telephone counselling and NGOs.

Improving access to services in rural and remote areas and for Indigenous populations is achievable through the implementation of technology and solid partnerships that emphasise long term goals, including the development of both the mental health workforce and resources for providing effective care.

A focus on well resourced, integrated community care that supports individuals to stay in the community has the potential to reduce rehospitalisation rates and length of stay as well as assist individuals to live healthier, more stable lives with greater rates of community participation and reduced burden on carers. Evidence suggests that gains can be made through collaborative primary care efforts, improved workforce and resourcing of evidence based initiatives, strengthening partnerships and support for individuals in the community.

Multicultural health

Background

Australia is now the most ethnically diverse country in the world. In the 60 years following World War 2, post war immigration program has brought over 5 million immigrants and refugees from more than 200 countries to a new life in Australia (Merrington, 2006). Of all of the states and territories, NSW contains the largest overseas born population with almost one quarter (23.8%) of its population born overseas (Australian Bureau of Statistics, 2008). Other than English the most common languages spoken at home in NSW are Arabic, Cantonese, Mandarin, Italian and Greek.

The diverse population challenges the health system to meet the needs of a wide range of culturally and linguistically diverse (CALD) groups. The Multicultural Health Program is designed to improve the health and health care of people from CALD backgrounds using public health services, as well as prevention and health promotion programs (National Health and Medical Research Council, 2005). The multicultural health program is based on the following two principles:

- that all people have equal access to health care services
- that the health system has a responsibility to respond appropriately to its target population which includes people of non-English speaking background. This includes modifying existing health services so that they reflect the needs of consumers and developing and providing services that provide appropriate and effective health care (National Health and Medical Research Council, 2005).

Evidence

In 1996, the term 'people of culturally and linguistically diverse backgrounds (CALD)' was coined to support the multiculturalism policy (Merrington, 2006). Culture consists of the beliefs, way of life, philosophy, habits, behaviour and values that determine the sense of identity and belonging to a particular group of individuals. This sense of culture affects the provision of health promotion, illness prevention and treatment and also the expectations that an individual encounters with the healthcare system.

More recently, a growing area for multicultural health concerns the health status of resettled refugees. Approximately 4,000 refugees resettle in NSW annually. These refugees have often experienced torture, war or civil unrest, the loss of family and friends through violence, and prolonged periods of deprivation. These experiences can have major implications on their health status. In response to this the NSW Refugee Health Service was set up by the NSW Department of Health in 1999 specifically to promote the health of people from a refugee background living in NSW through timely access to appropriate assessment, treatment and related services, and increased worker knowledge and skills for dealing with health-related problems (NSW Refugee Health Service, 2008; Diversity Health Institute Clearinghouse, 2008).

Interventions that aim to improve multicultural health are mostly targeted at the health promotion/prevention end of the health resource group matrix. However, although some studies have been carried out in this area to measure outcomes there is little evidence that they have been effective. Mainstream research frequently excludes consideration of people from CALD backgrounds due to perceived methodological difficulties and costs (National Health and Medical Research Council, 2005).

Historically, in many health promotion programs culture was seen as a barrier to their effectiveness. In such instances, mainstream programs were modified to take cultural peculiarities into account. However, in more recent times it is recognised that effective health promotion should

embrace goals from within a cultural context, rather than simply modifying programs developed from the context of a different culture.

This has led to a move towards cultural competency in which health professionals integrate culture into the delivery of health care services. In this way specific communication and interaction skills can be learned and integrated into health service delivery (Bennet, 2005). Cultural competency is much more than an awareness of cultural differences, as it focuses on the capacity of the health system to improve health and wellbeing by integrating culture into the delivery of health services (National Health and Medical Research Council, 2005).

A recently published guide relating to cultural competency in health promotion and health service delivery from the National Health and Medical Research Council (2005) revealed several barriers to culturally competent health promotion, highlighting a need to take action across the health sector and for cultural competency to be integrated into all levels of the health system. It also called for consistent practice in health promotion for healthier living and environments for CALD communities and called for a move away from short term funding to a more sustained approach. Finally, it highlighted the need for greater investment in community capacity building as the traditional top down approach within health systems generally excludes people from CALD backgrounds from identifying and developing relevant health promotion strategies.

Through a review of the literature the National Health and Medical Research Council identified the following factors that improve the effectiveness of health promotion targeted at CALD communities:

- Health promotion should be integrated, multifaceted and consist of properly planned communication strategies
- The health promotion process should be consultative and exploit formal and informal community information networks giving community control or significant influence over design and implementation of strategies
- Health promotion interventions should be evaluated with results and feedback to the community
- Language services should be appropriately funded allowing access to interpreters and appropriate materials
- Cross-cultural training should be provided to health professionals and relevant administrative staff
- Partnerships with multicultural service providers and non-government organisations should be encouraged and exploited.

Based on this work the National Health and Medical Research Council developed a model for increasing cultural competency for healthier living and environments. This model had a focus on working closely with consumers and communities, using leadership and accountability for sustained change, building on the strengths of the community and sharing responsibility through creating partnerships.

Discussion

Consumers have a right to health initiatives that respond to their social, cultural, linguistic, gender and spiritual and/or religious diversity and promote their health and wellbeing in this context. Evidence in the literature does not support the effectiveness of specific interventions for such a diverse population group but suggests that cultural competency should be supported at all levels of government and across health and professional organisations and systems.

Multicultural services are essentially enablers. They provide access to services across the whole HRG spectrum. More specifically, the key messages for community health are that multicultural health services and interventions should be delivered collaboratively involving both the CALD community and the health sector. Culturally specific and multicultural agencies should also work together with community health services to help ensure positive outcomes for the CALD community. There should be an increased focus on cultural competency to ensure that it is identified as an important component in education and professional development. There should also be a focus upon research and evaluation with a view to informing health and developing increased cultural capacity.

Multidisciplinary chronic disease management

Background

The multidisciplinary management of chronic disease is one of the greatest challenges facing contemporary health systems. Primary health care professionals and community settings, offer significant opportunities for improved care across the lifecycle.

Chronic care is relevant to every service type delivered in community health. In terms of the health resource group typology, chronic care has traditionally been managed in terms of “continuing care”. There is increasing recognition of the role of prevention and early intervention and more effective integrated treatment in improving the health system’s response to chronic care.

The recent “Review of the Framework for Performance Improvement in Health in NSW” by the Independent Pricing and Regulatory Tribunal (IPART) states:

“Chronic disease is likely to impose the greatest disease burden on Australian society and the greatest financial burden on the health system over coming years...Whilst there has been some effort to improve the management of chronic diseases, integrated care is in its infancy in Australia, and there is currently no plan for an effectively integrated system of health care in Australia or NSW. International best practice indicates that the primary care sector is best placed to lead integrated chronic care with a common pool of funding and a single budget holder.” (IPART 2008, p.6)

Chronic diseases are best managed by systems of care that are integrated, that emphasise prevention, and that rely on a greater degree of self management by the patient and/or carer. The ageing of Australia’s population and our improved longevity is leading to more people with chronic disease.

Dowrick (2006) discusses the challenges to implement the Australian National Chronic Disease Strategy endorsed by the Australian Health Ministers’ Conference. The approach has three elements: a national chronic disease strategy; a set of five national service improvement frameworks for asthma, cancer, diabetes, cardiovascular diseases and musculoskeletal conditions; and a blueprint for nationwide surveillance of chronic disease and associated determinants.

Evidence

Whilst an increasing number of people are suffering from long term and chronic conditions, more are raising concerns about the quality of services they receive. The complex needs of the elderly and chronically ill are well documented (Westera et al. 2007). A strong evidence base now exists to prevent, assess, treat and support patients with chronic conditions – with effective evidence for disease registries for chronic disease management and prevention; case management, use of clinical guidelines and education in disease self management (Ovretveit et al. 2008).

Hills et al. (2007) completed a study that explores the challenges of putting the multidisciplinary approach into practice in one community in a city in Canada. The community studied was diverse with respect to age, socioeconomics and lifestyle. Its interdisciplinary team serves approximately 3000 patients annually, 30% of whom are 65 years or older. They draw three broad conclusions from the literature: firstly, in our complex health systems, patient/client care demands multidisciplinary, inter-professional team work to avoid service gaps and duplication and achieve coordinated care; secondly there is little research that establishes the relationship between effective multidisciplinary teamwork and improved patient care. Thirdly, there is more rhetoric than reality, in that multidisciplinary collaboration is a concept often recommended yet seldom practiced.

“It is easy to demonstrate that chronic disease management demands a more preventative approach, with the main delivery system being primary health care and access to a range of professions (the multidisciplinary team), as opposed to episodic health care, and its primary care physicians and acute care hospitals. The logic of the multidisciplinary PHC team stems from the need for a coordinated and efficient model of care delivery. Such a model allows a variety of practitioners to create an integrated package of care that is based on the individual patient’s disease trajectory. The reason for a PHC team also comes from the need to monitor local determinants of health and advocate for positive changes that encourage healthy communities.” (Hills et al. 2007, p.127)

There are a considerable number of systematic reviews of interventions targeted toward specific chronic conditions. Interventions focus predominantly on:

- Educational interventions
- Specialist nurse led clinics
- Community based clinics – structured follow up
- Case management/guided care
- Self monitoring
- Organisational interventions that aim to improve the delivery of care e.g. from the macro level, funding incentives through to the micro level, appointment reminder systems.

Simpson and Rucker (2008) compare traditional health care approaches to chronic obstructive pulmonary disease (COPD) that focus on the disease and episodic care to manage acute exacerbations. They advocate for more patient centred models of care e.g. pulmonary rehabilitation programs that emphasise psychosocial/behavioural and educational interventions. This approach requires an interdisciplinary response that addresses patient realities: anxiety, depression, dyspnoea, fatigue and social isolation.

Adams et al. (2007) completed a systematic review of the chronic care model in chronic obstructive pulmonary disease prevention and management which highlighted that COPD patients who received interventions with two or more chronic care model components had lower rates of hospitalisations and emergency visits and a shorter length of stay when compared with control groups. Cranston et al. (2008) published a narrative review of models of chronic disease management in primary care for patients with mild-to-moderate asthma or COPD. This review covers a wide spectrum of interventions; however the authors did not find definitive evidence for the application of chronic disease management models in primary care in the management of asthma and COPD.

Scascighini et al. (2008) completed a systematic review of interventions and outcomes for multidisciplinary treatment for chronic pain. Multidisciplinary pain programs represent the state of the art of the management of complex, chronic, non-malignant pain patients.

Dobbins and Beyers (1999) provide a systematic overview of the effectiveness of community-based heart health projects and find that community-based strategies that are multi-pronged and multi-sectoral in scope, and are implemented in collaboration with community volunteers have been shown to be most effective. Ovretveit et al. (2008) investigated the extent to which evidence-based practices and computer systems for managing chronic illness are used within Swedish primary health care.

Norris et al. (2002b) conducted a systematic review of the effectiveness and economic efficiency of disease management and case management for people with diabetes.

“The essential components of disease management are:

- *The identification of the population with diabetes or a subset with specific characteristics (e.g. cardiovascular disease risk factors)*

- *Guidelines or performance standards for care*
- *Management of identified people, and*
- *Information systems for tracking and monitoring”* (Norris et al. 2002b, p.20).

Diabetes mellitus is a chronic disease that creates a significant clinical and economic burden on society (Norris et al. 2002a; Begg et al. 2007). Knight et al. (2005b) systematically evaluated and synthesised published evidence regarding the effect of disease management programs for patients with diabetes mellitus on processes and outcomes of care focusing on English language controlled studies published from 1987-2001. Diabetes disease management programs were found to improve glycemic control to a modest extent and increased screening for retinopathy and foot complications. Norris et al. (2002b) reports that there is strong evidence that disease management interventions are effective in improving glycemic control in people with diabetes. For case management, evidence is strong of its effectiveness in improving glycemic control. Standards of care for diabetes mellitus have been broadly disseminated since the 1980s. The number and complexity of services required to manage such patients in accord with accepted guidelines have made diabetes mellitus the target of multiple disease management efforts, as well as targeted efforts involving professional education and case management (Knight et al. 2005b).

The two systematic reviews of Stuck et al. (2002) and Elkan et al. (2001) provide good evidence for the benefits of preventative home visiting (conducted by a nurse or health visitor) on older people 65 years and over. Effective components of this intervention include: multidimensional geriatric assessment, multiple follow-up visits and targeting of those at lower risk of death who are relatively young (Stuck et al. 2002). The impact of home intervention programs on improved functioning for veterans is discussed at length by Eagar et al. (2007) in their report on “Options for the future of Veterans’ Home Care”.

Chow et al. (2008) examined patient records associated with a randomised controlled trial to examine community nursing services for patients with cardiovascular diseases, chronic respiratory diseases and other general medical conditions, making the transition from hospital to home. A comprehensive home intervention program, emphasising continuous needs of monitoring and case management, is fundamental to improving the well being of chronically ill patients.

Self management education is the process of teaching people to manage their chronic condition. It is important to ensure that such programs enable patients with chronic diseases to actively engage in promoting their own health, and to make effective links with relevant health professionals. There is an extensive body of literature on the effectiveness of self management interventions in chronic disease (Zwar et al. 2006).

Ofman et al. (2004) assessed the clinical and economic effects of disease management in patients across a range of chronic diseases. The project included 102 studies representing 11 chronic conditions: depression, diabetes, rheumatoid arthritis, chronic pain, coronary artery disease, asthma, heart failure, back pain, chronic obstructive pulmonary disease, hypertension and hyperlipidemia. Disease management programs were associated with marked improvements in many different processes and outcomes of care. Few studies demonstrated a notable reduction in costs.

Special needs groups require specific chronic care service responses; the needs for Aboriginal and Torres Strait Islander people are referred to in the section on Aboriginal health.

Discussion

Traditional methods of healthcare delivery do not adequately address the needs of individual people or populations with chronic disease. Whilst the focus on multidisciplinary chronic disease management falls to the right of the Health Resource Group spectrum there is good evidence for early intervention in chronic disease and preventing the development of chronic disease.

The treatment and continuing care HRGs provide opportunity for disease management, case management, coordinated care, clinical pathways, home interventions and self management. A small proportion of the chronic care and aged care sector would benefit from a case management approach as the primary health focus of care.

The health workforce needs to be equipped to meet the future challenges of chronic disease management (Glasgow et al. 2006)

Finally, activity in the primary health care system permits action across the spectrum of Health Resource Groups - from prevention to management – and across the breadth of risk factors and chronic conditions.

Oral Health

Background

Oral health is fundamental to overall health, wellbeing and quality of life. A healthy mouth enables people to eat, speak and socialise without pain, discomfort or embarrassment. The impact of oral disease affects quality of life for individuals and the nation through health system and economic costs (Spencer, 2003). In Australia, dental services alone account for 5.4 per cent of total health expenditure. There remain persistent high levels of oral disease and disability among Australian adults (Australian Health Ministers' Conference, 2004; Department of Human Services, 2007).

Despite a marked improvement in oral health of Australian children over the last 30 years, severe early childhood caries affects up to 17% of 2- to 3-year-old children (Plutzer and Spencer, 2008). Dental caries stem from negative personal health behaviours, which may reflect underlying family and community values for general and oral health, for healthy nutrition, for maintenance of general and oral hygiene, and for use of medical and dental services. In addition to disadvantage, higher caries rates in children correlates with limited parental education (Edelstein, 2000).

There is a strong link between socioeconomic status and health, and this is reflected in patterns of oral health and disease in Australia. Poor oral health in this country is most evident among Aboriginal and Torres Strait Islander peoples, people on low incomes, rural and remote populations, and some immigrant groups from non-English speaking background, particularly refugees (Australian Health Ministers' Conference, 2004; Sanders and Spencer, 2004; Jamieson et al. 2007). The elderly and mentally or physically infirm are particularly susceptible because of problems with personal hygiene, diet, and access to care (Milgrom and Reisine, 2000).

The entire population benefits from good oral health, however those in "at risk" groups are likely to benefit most from oral health interventions. Oral health interventions are delivered across the spectrum of Health Resource Groups.

Evidence

The literature provides a range of studies that assess the effectiveness of oral health interventions delivered in community based settings. Searching produced limited material specific to the NSW community health context. The Victorian Department of Human Services (2000) has compiled a useful summary of the evidence base applied to oral health promotion that categorises the effectiveness of interventions using the five strategies of the Ottawa Charter.

Tooth brushing and oral hygiene

Tooth brushing is one of the best methods to combat caries in individuals of all ages. The most widely used topical fluoride preparations, other than drinking water, are toothpastes. In countries where caries prevalence has declined, the single common factor appears to be fluoride toothpaste (Milgrom and Reisine, 2000).

Fluoride mouth rinses have generally proved to be effective in controlling caries in clinical studies, particularly in areas with inadequate fluoride water levels and in children receiving inadequate fluoride therapy. The first clinical trial of mouth rinses in North America demonstrated a significant effect on caries reduction in pre-schoolers. Fluoride mouth rinses have also proven to be efficient in school children with significant dental caries (Milgrom and Reisine, 2000).

Fluoridation

Oral health is worse in areas with no access to a fluoridated community water supply (NSW Health, 2006). Milgrom and Reisine (2000) discuss at length the evidence for the effectiveness of community water fluoridation and other fluorides in the reduction of dental caries prevalence.

The US Preventive Services Taskforce (2004) recommends that primary care clinicians prescribe oral fluoride supplementation to preschool children older than six months of age whose primary water source is deficient in fluoride. Wright et al. (2001) assessed the cost-effectiveness of fluoridating water supplies in New Zealand finding that fluoridation remains very cost-effective, and is particularly so for communities with high proportions of children, Maori or people of low socio-economic status.

Routine dental checks

The evidence on routine risk assessment or dental checks is not clear cut. Davenport et al. (2003) systematically reviewed the effectiveness of routine dental checks of different recall frequencies in adults and children. Studies of any comparative design were included with twenty-eight meeting the inclusion criteria for the review. This review indicates that there is no high quality evidence to either support or refute the current practice of encouraging six-monthly dental checks in children and adults. The US Preventive Services Taskforce (2004) also concludes that the evidence is insufficient to recommend for or against routine risk assessment of preschool children by primary care clinicians for the prevention of dental disease.

Prenatal early intervention

If prevention is to be maximised, initial examinations and the education of parents in preventative oral health should begin during the first year of life. Presentation of dental health information in prenatal classes along with preventive measures is an approach that has been shown to be beneficial to children for the long term (Milgrom and Reisine, 2000).

Wennhall et al. (2008) conducted a three year non randomised longitudinal study to evaluate the caries preventive effect of an oral health program for preschool children living in a low socioeconomic multicultural area in Sweden. The study enrolled 804 children aged 2-years, who were recalled every third month between ages 2 and 3 and semi-annually between ages 3 and 5 years. From an outreach facility, parents were instructed on oral health with a focus on tooth brushing and diet, and provided fluoride tablets free of charge. After three years, the results of the intervention group were compared with a non-intervention reference group of 201 children aged 5-years-old from the same district. This study demonstrated that the early start of this oral health program had a significant beneficial effect on caries prevalence after 3 years.

The importance of improving oral health care at the earliest age possible should not be underestimated (Eagar et al. 2005a). One example of this focus is where NSW Health has recently made oral health information available to all parents of newborn babies through the child 'Personal Health Record' (blue book) (http://www.health.nsw.gov.au/pubs/2007/child_health_record.html). The blue book is designed to be a tool that health professionals can use to record details of the child's health and offer timely advice to parents and primary care givers. The latest version, released in March 2007, includes specific oral health guidelines together with an oral health check. This provides both health professionals and parents alike with knowledge and skills that are essential for the prevention of early childhood caries and second, to increase general health involvement in oral health promotion (Phelan, 2006).

Preschool interventions

Plutzer and Spencer (2008) use a randomised controlled trial to test the efficacy of an oral health promotion program for the parents of infants, starting during the pregnancy. Of 649 women enrolled in the program (test group 327, control group 322), 441 had their child examined at follow up. Throughout the study women in the test group received three rounds of printed information applied in the form of anticipatory guidance. Test group mothers received the first round of information at enrolment into the study. The second and third rounds of information were mailed to the mothers' home address when their child reached 6 and 12 months of age. Findings demonstrated that an oral health promotion program provided in the form of anticipatory guidance in three rounds (during pregnancy, 6 and 12 months of age), significantly reduced the incidence of severe early childhood caries in these very young children.

Williams et al. (2008) review 'Smiles 4 Miles', an Australian state wide oral health promotion initiative targeted at preschool aged children. 'Smiles 4 Miles' encourages close collaboration between local preschools and parents groups to develop healthy policy and practices, such as promoting water rather than sweet drinks (Drink Well) increasing the consumption of fruit and vegetables rather than pre-packaged snacks (Eat Well) and encouraging good oral hygiene (Clean Well). These initiatives are designed to promote a healthy environment for the children at preschool as well as encourage change at home. The Smiles for Miles program has been delivered into 22 sites in Victoria reaching 225 preschools and almost 12,000 children. Early evaluation results indicate a positive change in risk behaviours e.g. decreased consumption of sugary drinks and snack foods.

School based interventions

A survey of school dental screening practice in community dental services of England and Wales in 2003 was evaluated via a cross-sectional study using a postal questionnaire. The major findings were that whilst school dental screening is delivered in a similar fashion throughout England and Wales most school dental screening programs do not collect sufficient data to evaluate the impact of programs on children's oral health (Threfall et al. 2006).

Melvin (2006) describes the implementation of the Tooth Tutor Program in Vermont, a designated resettlement area for refugees. The program is a primary and secondary prevention program that uses visual screening to identify children who have not seen a dentist in more than one year or have never seen a dentist for routine care. It was initiated by a community based clinical nurse specialist and is aimed at children in grades 1 to 6 in three designated schools. The program combines screening with yearly classroom presentations and involves student participation with hands-on activities. Each child is given a toothbrush and floss and other information about general oral health. The program was evaluated by reviewing health records of dental care, it was able to provide services to approximately 500 children in the first 2 years with an increase in preventative services and decrease in restorative services from year 1 to year 2. The program provides a good example of how community health clinical nurse specialists collaborate with other health professionals in addressing community-level health needs.

Jackson et al. (2005) use a randomised, single-blind parallel group clinical trial to investigate the effects of a supervised tooth brushing program on dental caries in primary school children, initially aged 5-6 years in the London Boroughs of Kensington, Chelsea and Westminster. Children in these boroughs have one of the highest levels of caries in England and Wales. A total of 517 children were recruited for this study. Class teachers were trained individually by a dental hygienist in appropriate tooth brushing technique for young children. The study found that teacher-supervised tooth brushing, once a day at school, during term time, with commercial fluoride toothpaste reduces dental caries in socially deprived primary school children when compared with children from the same community who did not receive this intervention.

Geriatric oral health promotion

As older adults became more functionally dependent, cognitively impaired or medically compromised, they were at higher risk for developing dental caries. Older adults still visit the doctor the most frequently of all age groups, but visit the dentist least frequently of all age groups. Therefore oral health and general health need to be better integrated for older adults, their carers and other health professionals. Oral health should encompass not only the treatment of oral diseases and conditions, but an increased focus on the prevention of oral diseases and enhancing older adults' quality of life (Chalmers, 2003).

The World Health Organisation (WHO) presented the compelling evidence confirming the cost-effectiveness of the care delivered by intermediate providers such as dental hygienists. WHO sees dental hygienists as 'best poised' to help accelerate the integration of oral health with primary care (Monajem, 2006).

Special needs groups

'Dental as Anything' is a dental outreach intervention that responds to the complex oral health needs of people with a mental illness. The 'Dental as Anything' program is a collaborative between the mental health, dental and administration teams of the Inner South Community Health Service in Melbourne. It provides a flexible program incorporating engagement, clinical care, education and support in response to client needs. Utilising a health promotion framework and an assertive outreach model, it accesses people who traditionally do not approach mainstream services. There is no evidence that the current model is best practice, rather it is good practice, and an informed professional response to a service gap. While not yet formally evaluated, an evaluation is planned for this program (Burchell et al. 2006).

Williams et al. (2008) recommend two interventions that target the issue of poor oral health in Indigenous children's teeth. The 'Top Tips for Teeth' program conducted by LaTrobe Community Health Service specifically targets local Koori primary and pre-school children with the aim of improving their oral health knowledge, attitudes and behaviours through an after lunch brushing program and culturally appropriate education sessions and resources. As a result of this successful program oral health has been included as part of the school curriculum and Top Tips for Teeth is a component of the Koori Health and Wellbeing Project.

'Tiddalick Takes on Teeth' is an oral health promotion program developed in partnership between the Awabakal Newcastle Aboriginal Cooperative Ltd. and the then, Hunter Area Health Services. The program focused at encouraging indigenous children to choose to drink water in between meals and to 'swig-swish-swallow' water after meals and snacks. The intervention includes the Tiddalick's Toothy Tale package comprising of a teachers' resource, oral health policy proforma, storybook, video, song, water bottles, stickers and a poster for use in early childhood centres. This intervention has been particularly successful and has consequently been rolled out state-wide in NSW by the NSW Oral Health Branch. Also, the Secretariat of National Aboriginal and Islander Child Care and the National Aboriginal Community Controlled Health Organisation have endorsed the program for nationwide release. The evaluation of the project indicated that although the intervention has a culturally specific flavour it can also have benefits at non-Indigenous child care centres.

Oral cancer

Oral cancer and related smoking and smokeless tobacco use remain major public health problems and require increased attention (Milgrom and Reisine, 2000).

Discussion

Oral health interventions extend across several Health Benefit/Resource Groups. Fluoridation has a clear health benefit for the whole population but priority should be given to high risk groups in unfluoridated communities. There is good evidence for oral health promotion interventions tied to prenatal and well-baby care, and in the preschool and primary school setting. Interventions are effective that develop personal skills such as tooth brushing, use of fluoride toothpastes and mouth rinses. Particular attention is needed for special needs groups who require interventions that are responsive to the unique circumstances of these groups and culturally accessible and appropriate. There is some evidence to suggest that further investment in education and community development interventions yields potential health gains for "hard to reach" population groups (Department of Human Services, 2000). Access to preventive and therapeutic dental care is far from universal, better integration of medical and dental care offers one way to better meet the oral health needs of the aged and chronically ill.

Palliative care

Background

Palliative care is care provided for people with life-limiting illnesses who have little or no prospect of cure. Historically, palliative care was focused on patients with terminal cancer. This is no longer the case, with a recent article in the British Medical Journal calling for 'palliative care beyond cancer care for all at the end of life' (Murray and Sheikh, 2008). The implication is increasing need for services in response to population ageing and increasing rates of chronic diseases. Palliative care is delivered in a wide range of settings, often by specialist palliative care teams. These settings may depend on the current state of the person's illness. By its very nature, it is concentrated in the Chronic Consequences HBG and the Continuing Care HRG.

Evidence

There is a growing evidence base for palliative care services, including some evidence on the effectiveness of community based palliative care interventions. An early review (Wilkinson, 1999) found a dearth of reliable evidence. The British Medical Journal's review of evidence in palliative care (Brunnhuber, 2008) found moderate-quality evidence that specialised palliative care services improve family satisfaction but evidence on patient satisfaction, quality of life, and symptoms control was less clear-cut. Another systematic review of specialised palliative care randomised control trials (Zimmermann, 2008) found that the evidence for benefit is sparse and limited by methodological shortcomings. This is not surprising when the evidence base is limited to randomised controlled trials.

The evidence base is stronger when evaluation methodologies are broader than randomised trials. However, the existing evidence is concentrated on specialised palliative care services (see, for example, Finlay et al. 2002, Goodwin et al. 2002, Harding et al. 2005, Hearn and Higginson 1998, Higginson et al. 2002 and 2003) which involve a range of medical, hospital or hospice and home based interventions. At a population level, Abernethy (2008) found that specialised palliative care services are associated with improved short and long-term carer outcomes.

Several studies have examined the utilisation and costs of community palliative care. For example, Fassbender (2005) examined the introduction of a comprehensive, integrated, coordinated and community based palliative care system in Alberta, Canada. This system allowed patients to spend more time in community settings and was a cost neutral strategy. This approach freed up hospital beds for other uses.

Other studies have shown that palliative care can reduce hospital admissions the number of inpatient bed days (Constantini et al. 2003) and potentially reducing costs compared to conventional care (Brumley, 2003).

There is less evidence for primary palliative care that is delivered by General Practitioners, community nurses and generalist allied health professionals, largely because it is a new area of research. However, there is some (see for example Evans et al. 2003 and Eagar et al. 2006).

Discussion

Palliative care is an essential component of continuing care. An editorial in the British Medical Journal (BMJ) in 2004 put the case for primary and community-based palliative care when it argued that people with terminal conditions should be able to die at home with dignity if they so choose.

“Although 65% of people with cancer want to die at home, only about 30% are successful in doing so. A government committed to choice for patients must improve this figure. Developing palliative care services in primary care is essential for realising the expectations of dying people. Such services could also offer important opportunities for extending supportive humane care at an earlier stage, and to people not only with cancer but with chronic obstructive pulmonary disease, motor neurone disease, and cardiac failure, for example, who also often have palliative care needs.

Primary care professionals have the potential and ability to provide end of life care for most patients, given adequate training, resources, and, when needed, specialist advice. They share common values with palliative care specialists—holistic, patient centred care, delivered in the context of families and friends. However, until recently, apart from Macmillan general practitioners and nurse facilitators, few comprehensive workforce initiatives have been undertaken in primary care that focus on end of life care....

Every person with a progressive illness has a right to palliative care. Patients desire a reassuring professional presence in the face of death. General practitioners and community nurses are trusted by patients and are in a position to provide effective, equitable, and accessible palliative care. This will happen only if they have adequate time and resources and work in a system that encourages such care. Patients who receive holistic support in the community may be less likely to require expensive admission to hospital and often futile treatments at the end of their lives.” (BMJ editorial 2004, pp.1056-1057)

Physical abuse and neglect of children

Background

In NSW, children referred to Physical Abuse and Neglect of Children (PANOC) services are those who have been investigated by the Department of Community Services and physical, emotional abuse and/or neglect has been proven. PANOC services are located in all major community health facilities and work with children up to eighteen years of age together with their parents/carers to assist them in providing a safe and nurturing environment for their children.

PANOC specialist services also provide consultation and support for health workers on child protection issues and concerns as well as education and training about child protection issues (NSW Health Department, 2000).

PANOC workers deal with issues such as parenting, anger management, the effects of abuse on children and keeping children safe (NSW Health Department, 2005). Interventions relating to these issues can be divided into two broad groups: therapy, counselling and casework services; and education and training, as follows:

Table 4 PANOC interventions

Therapy, counselling and casework services	Education and training
Family counselling	Education for health professionals
Family group work	Community education
Support and advocacy for children and families	Information about child protection

Evidence

Interventions that address Physical Abuse and Neglect of Children can be categorised into three broad groups: primary, secondary and tertiary prevention. Primary prevention includes all efforts targeted at populations in general. These interventions address the underlying societal causes of child maltreatment. Secondary prevention focuses on specific groups (e.g., families) identified as being at risk for maltreatment and attempts to decrease the influence of risk factors (e.g., poor parenting, social isolation and parental personality problems). Tertiary prevention includes strategies targeted at groups (e.g., families) in which child maltreatment has already occurred. Its major aims are to stop the maltreatment and to minimise the negative consequences for the child, the family, and the society (Geeraert, 2004).

These groupings neatly fit into the Health Resource Group framework used for this review. In this framework, primary prevention refers to Health Promotion. Secondary prevention refers to prevention and early detection and tertiary prevention relates to treatment.

Many child maltreatment experts have called for greater attention to primary prevention services in an effort to prevent abuse before it occurs. This public health perspective targets specific risk factors that are highly prevalent in a population (e.g. low level of education, unwanted pregnancy or poor early bonding). However, of the few public health interventions that have been rigorously evaluated, only a handful have demonstrated an impact on child maltreatment or its risk factors (Klevens, 2007).

There is also little or no evidence for mandatory notification of at risk children. A critique of mandatory reporting systems by Harries and Clare (2002) concluded that:

“There is no evidence that mandatory reporting increases the quality, quantity or benefits to children who are ‘at risk of harm’ or to families who are vulnerable. Indeed there is some evidence that it does the reverse.”

Eagar et al. (2005a) concluded:

“Legislation requiring certain professionals to report suspected child abuse has led to increased notification of cases of abuse and neglect nationally. There is, however, no evidence that mandatory reporting legislation in Australia or elsewhere has been effective in protecting children.”

The evidence is stronger for prevention and early intervention. A recent meta-analysis of secondary prevention interventions by Geeraert et al. (2004) revealed that early prevention programs targeted at families with young children (up to the age of three) at risk of physical child abuse and neglect produced highly positive results. Interventions targeted at at-risk groups produced a significant decrease in the manifestation of abusive and neglectful acts and a significant risk reduction on factors such as child functioning, parent-child interaction, parent functioning, family functioning, and context characteristics.

An even more recent systematic review into home visitation programs for preventing violence in high risk populations found strong evidence that early childhood home visitation programs were effective in preventing child maltreatment (Bilukha et al. 2005). It highlighted in particular programs delivered by professional visitors (nurses or mental health workers) and the fact that they yield greater effects than those delivered by para-professionals.

PANOC specialist services fall into the category of tertiary prevention. In other words, their clients are families in which child maltreatment has already occurred. This is the ‘Treatment’ group in the Health Resource Group framework. Any interventions at this level hope to stop maltreatment and to minimise any negative consequences for the child and the family. However, it is important to point out that PANOC service interventions also fall into the primary and secondary categories (e.g. community education and support and advocacy for children and their families).

A Cochrane review into parenting programs for the treatment of physical child abuse and neglect found that group based parenting programs are increasingly being recognised as being a cost-effective way of improving parenting (Barlow et al. 2006). However some of these positive results should be treated with caution as none of the studies look at the long-term impact of parent training in reducing actual abuse (Lundahl et al. 2006).

Having said this, key success factors in parenting programs include a combination of office and home visits, an individualised component, use of behavioural and non-behavioural approaches to change parental child rearing practices and attitudes (Lundahl et al. 2006). The importance of early detection of maltreatment to protect children and facilitate the provision of services to these families is also recognised (Mathews, 2008).

A systematic review of school-based education programs for the prevention of child sexual abuse (Zwi et al. 2007) found some improvements in knowledge and protective behaviours, but some indicators of harm from the interventions in the form of increased anxiety in children, and it was not clear that school-based interventions result in the prevention of child sexual abuse

The Centre for Health Service Development (CHSD) recently updated a catalogue of evidence-based strategies for the health and wellbeing of children aged 0-8 years for the Victorian Department of Education and Early Childhood Development (Williams et al. 2008). In the area of re-notifications to child protection, CHSD recommended four strategies as outlined in Table 5. Together, these interventions represent a cross-section of recognised approaches in the area of Physical Abuse and Neglect of Children.

Table 5 Recommended strategies

Intervention	Population	Health Resource Group	Where	Resources
Triple P Positive Parenting program	Parents concerned with anger management and higher levels target families with confirmed problems	Prevention and Early Detection and Treatment	Ambulatory health care settings (community or outpatient clinics)	http://www1.triplep.net/
Parent-Child Interaction Therapy (PCIT)	Families in which child abuse has been confirmed.	Prevention and Early Detection and Treatment	Ambulatory health care settings (community or outpatient clinics)	http://www.pcit.org/ http://devbehavpeds.ouhsc.edu/pcit.asp http://www.pcittraining.tv/about.asp http://www.griffith.edu.au/centre/gphrc/Research/parentchild.htm
The Incredible Years	Parents of children aged 4-8 years, particularly low-income and/or CALD families.	Prevention and Early Detection	Ambulatory health care settings (community or outpatient clinics) or through schools	http://www.incredibleyears.com/ http://www.son.washington.edu/centers/parenting-clinic/
Healthy Families – Prevent Child Abuse America	At-risk families with new born infants.	Prevention and Early Detection	In the home	http://www.healthyfamiliesamerica.org/home/index.shtml

Discussion

Interventions relating to the Physical Abuse and Neglect of Children span across three Health Resource Groups as follows.

Health promotion: there is little evidence to suggest that primary prevention services targeted at the general population have demonstrated any impact on child maltreatment or its risks (see previous section on child and family health).

Prevention and early detection: there is good evidence to suggest that targeting early prevention programs at high risk families with children up to the age of three is effective in reducing the incidence of abusive and neglectful acts. This includes home visiting of at risk families. School-based interventions do not appear to be effective in preventing child sexual abuse and are best seen as part of a broader community approach.

Treatment: there is good evidence to suggest that home visiting and group-based parenting programs are a cost effective way of improving parenting.

Overall, there is agreement that tailored evidence based programs targeted at high risk families involving a home visiting component are most likely to have positive outcomes in reducing the incidence of abusive behaviour.

Sexual assault

Background

It is difficult to estimate the true prevalence of sexual assault within Australia. In 2005, crime victimisation studies found that 44,100 (0.3%) people over the age of 18 had experienced at least one sexual assault in the previous 12 months (ABS, 2005). The main burden of sexual violence falls on women and girls with sexual violence experienced by Indigenous women being more common than in the general female population (Astbury, 2006). High quality services for the victims and survivors of sexual assault are essential for an effective and timely response to sexual violence and the minimisation of harm, including long-term physiological and psychological recovery.

Evidence

Women who have experienced sexual violence have increased use of medical services but have poor use of mental health services, victims' services and preventive health (Astbury, 2006). Lessing (2005) argued that primary care providers have a unique opportunity to provide preventative as well as supportive care for sexual assault victims. By integrating a thorough sexual assault assessment into history taking and incorporating an awareness of related symptomatology, providers may be able to identify patients who have not previously disclosed their sexual assault (Lessing, 2005).

Both initial trauma and secondary trauma (by health, counselling and legal staff) can increase health harming behaviour (smoking, alcohol use) (Astbury, 2006). Campbell and colleagues (2001) conducted a study into prevention of secondary rape and found that those who did not have their cases prosecuted or reported contact with the legal system as hurtful, reported poorer health and psychological outcomes. The authors recommended the increased involvement in service provision by rape crisis centres; increased training for all service providers; and development of multi-system coordinated care service programs (Campbell et al. 2001). Education for emergency staff, GPs and community health services to better deal with male rape issues and to reduce the secondary victimisation often experienced by men when accessing help is also needed (Ellis, 2002).

Medical examinations and procedures may also elicit post-traumatic stress disorder (PTSD) responses (Clardie, 2004). Women who have suffered sexual violence form the largest group among sufferers of PTSD (Astbury, 2006). Consistent inquiry around sexually traumatic experiences is not implemented in most health care settings, leading to undetected, misdiagnosed or inappropriately treated mental health symptoms (Clardie, 2004).

Current treatment options for sexual assault include medical care, counselling, emergency contraception and prophylactic treatment for STIs. Follow-up care is also arranged. Effective counselling approaches include cognitive therapies (individual) or feminist therapy (group therapy) particularly when used in combination (Astbury, 2006). More research on effective counselling for male victims is also needed as most current counselling methods are adaptations of methods developed for women (Ellis, 2002).

Women often find it difficult to report sexual assault in rural communities due to isolation, rural conservatism and community denial of sexual assault. In particular, the nature of rural communities makes it difficult for victims to remain anonymous and to gain appropriate health and legal services and a police response (Neame and Heenan, 2004).

Indigenous women who seek services for sexual assault may also encounter barriers to services. The 'From Shame to Pride' project in Victoria (Thorpe et al. 2004) outlined recommendations for improving Indigenous sexual assault services including the formation of an Indigenous steering

committee on sexual assault that fed into the main state-wide sexual assault steering committee; the development and delivery/distribution of training, printed resources and a procedures manual, facilitation of a men's forum on sexual assault, promotion of community controlled research, establishment of an Indigenous helpline and development and delivery of a state-wide safety and awareness campaign.

O'Sullivan and Carlton (2001) evaluated a proposal to merge sexual assault services with other services such as domestic violence services and found that combined services were less effective at helping sexual assault victims and providing community information and education.

Hatmaker et al. (2002) evaluated the development of a non-hospital/community-based, nurse managed model of care for sexual assault and found that sexual assault services can be based in the community as long as limitations such as staffing, medication use and follow-up with government programs and local-providers are accounted for. Results have shown that examinations are less traumatic to the victim and that evidence collection has improved as well as indications of an increase in prosecution and plea bargaining (Hatmaker et al. 2002).

Sexual assault education programs have been developed and evaluated in the US. The long term development of a sexual assault program for college women in the US found that such programs are likely to be more effective if implemented early, preferable before sexual assault can occur (Hanson and Gidycz, 1993) but that education programs by themselves may not be enough to reduce a woman's risk of sexual assault (Gidycz et al. 2001). Women with a history of sexual assault are at increased risk of subsequent sexual assault (Hanson and Gidycz, 1993). A meta-analysis of 69 studies of sexual assault education programs found that sexual assault education interventions for college students are more effective when they are longer, presented by professionals, and include content addressing risk reduction, gender-role socialisation, or provision of information and discussion of myths and facts about sexual assault (Anderson and Whiston, 2005).

Discussion

Sexual assault services are effective where there is demonstrated potential for secondary prevention and the reduction of secondary trauma resulting from insensitive service responses. There is evidence that specialist services may be of greater benefit to victims of sexual assault than generalist primary care services.

Early detection and tailored interventions can reduce demand for medical interventions around complications and transmissible disease and subsequent longer term mental health service responses. At the population health level the evidence implies investment in campaigns of raising awareness in general services so as to detect victims of sexual assault in mainstream services; dedicated staff at the secondary referral and consultation level who are familiar with the specific issues around sexual assault, and a capacity in the primary health sector for longer term follow-up and counselling. Development of effective linkages with specialist sexual health services is needed as is research into how best to serve male victims and rural, remote and Indigenous populations.

Sexual health

Background

Sexual health services deal with sexually transmissible infections such as chlamydia, gonorrhoea and syphilis and blood borne viruses such as HIV and hepatitis. This work covers the full range of the population groups and HRGs, and ranges from health promotion to dealing with chronic conditions, and also includes the tracking of a person's sexual partner/s to identify any transmitted infection at an early stage.

Evidence

Much of the academic journal articles related to sexual health consist of information provided by professionals within the sexual health system about the operations of sexual health services and its context within primary care services.

Partnerships and population

Bernard (2008) surveyed key informants within the HIV prevention services, and examined the investments and background in three states of Australia, and concluded that active commitment and adequate resourcing of HIV prevention by all stakeholders is needed.

Laverty (2006) reports on the evaluation of a PHC trust in the UK against identified standards and interviewed stakeholders. The main lessons were about the importance of building partnerships with other agencies and services such as Family Planning, GPs and with local youth, education, voluntary and social care agencies. A change in mindset is needed from thinking about how services are provided to a community to a consideration of how the needs of the local population may be best met within the context of the health system.

Sturrock (2007) describes a community- based sexual health care program in the ACT and reports improved access to services by many groups. This is partly attributed to collaboration between the clinicians and organisations that provided the outreach facilities, such as a male sex-on-premises venue, a community AIDS organisation, brothels, a youth centre and a tertiary campus.

Partner notification

Low (2006) used a randomised control trial to evaluate the effectiveness of a GP practice nurse-led strategy in 27 general practices in the UK to improve the notification and treatment of partners of people with chlamydia infection. It found that that practice based partner notification by trained nurses with telephone follow-up by health advisers is at least as effective as referral to a specialist health adviser at a genitourinary (sexual health) clinic, and costs the same

Role of clinics

Doherty (2000) described the importance of understanding user wishes, and especially the importance of confidentiality to attendance by patients. Surveys of users of genitourinary medicine (sexual health) services and family planning clinics indicated that confidentiality was the most important issue to many patients, and that many would not use their local GP for this reason. Users and clinicians supported the development of clinics providing a broad range of sexual health services.

Information provision

The issue of how people find information about sexually transmitted diseases and/or HIV/AIDS in an efficient, confidential manner has also been raised. Dancy (2007) described the National Library of Medicine's AIDS Community Information Outreach Program and how at-risk and affected communities have benefited from improved access to HIV/AIDS information. One of the

reasons for this was the encouragement of partnerships among community organisations and other agencies involved in HIV/AIDS services.

Lee (2007) reported on the use of automated, internet based services to increase access to sexual health advice for high risk individuals and reported that it was a useful way to provide information to these high risk individuals in a timely effective and inexpensive way.

Discussion

The key findings from the literature are about the need for sexual health services to work in partnership and collaboration with other primary care services and organisations. The use of practice nurses as an alternative to sexual health clinics for some needs is possible, but this is countered by the need many people have for confidentiality and therefore a reluctance to use their GP. Another key finding is about the importance of easily accessible and appropriate information.

Women's health

Background

The definition of women's health developed at the Fourth World Conference on Women in Beijing includes three basic features:

"...consideration of health as a product of cultural, social and psychological factors as well as biology; viewing women's health from a lifespan and multi-role perspective; recognition that extension of the concept of health beyond the absence of disease requires health promotion and health maintenance strategies by the individual, the health community, and society" (Ricanati and Thacker, 2007).

In Australia, women's health services are provided through a network of government and non-government providers and offer support, information and interventions in a wide range of issues such as: contraception; pregnancy and childbirth; early parenting; menstruation; menopause; breast and cervical cancer; incontinence; sexually transmitted infections; emotional health issues; domestic violence and lifestyle factors.

The establishment of community based women-specific services has been an important outcome of the women's health movement. Services such as these are an attempt to deliver health care to women in a way which reflects their individual and cultural circumstances. From their inception in the mid 1970s, most women's health centres were funded by the Federal Government through the Community Health Program, with changes to government policy, community based women's health centres have had to find funding from other sources (Women's Health Queensland Wide Inc., 2007).

In Australia, the introduction of the National Women's Health Policy and funding program in 1989 was a milestone that signified the Commonwealth's encouragement for state governments to support women's health initiatives. It also ensured that women's health issues had an ongoing national focus. Currently, women's health centres are funded jointly by both state and Federal governments through the Public Health Funding Outcomes Agreement (PHFOA) (Women's Health Queensland Wide Inc., 2007). This funding source also supports community based women's health services delivered by NSW Area Health Services.

Women's Health Centres provide women's health nursing services that include the full range of HRGs from community education groups, health care talks for women and the provision of well women clinics. These centres have historically targeted women who are disadvantaged and may not access mainstream funding services, often through outreach services and in partnership with other health and social service providers. Outreach clinics address a range of issues such as pap smears and breast checks. Health promotion and community development are also important components of the work (Perks, 2006).

In NSW, women's health nurses have traditionally been based in community health centres or population health/public health services. The spectrum of services provided is broad but relates primarily to reproductive health, menstruation, menopause, osteoporosis, continence, relationship and lifestyle issues. Women's Health Nurses also offer early detection services such as pap smears, breast checks and blood pressure checks.

Evidence

The evidence on women's health practice, as delivered in community health settings, is generated by looking at the major interventions that women's health nurses provide.

Cervical cancer screening

Black et al. (2000a; 2000b) completed two systematic reviews; the first assessed the effectiveness of strategies to increase cervical cancer screening in clinic-based settings. They included forty-seven studies in their review, across a range of research designs and found that implementation of tailored interventions, including the development of language specific resources, may contribute considerably to future increases in Pap smear rates. The second systematic review considered community based strategies to promote cervical cancer screening. A major implication of the review for practice was the finding that the combined use of mass media campaigns and provider education and personal reminder letters with the target population should be considered. Margolis et al. (1998) conducted an intervention to increase breast and cervical screening in low-income women using a controlled trial. Lay health advisers assessed the participants' breast and cervical cancer screening status and offered women in the intervention group who were due for screening an appointment with a female nurse practitioner. Breast and cervical cancer screening rates were improved and the effect was strongest in women in greatest need of screening. Forbes et al. (2002) completed a systematic review of interventions targeted at women to encourage the uptake of cervical screening, the review focused on randomised controlled trials (RCTs) or quasi RCTs, a major finding being that invitations and probably educational interventions increase the uptake of Pap smears.

Domestic violence screening

Domestic violence screening is a service provided in many women's health centres. Ramsay et al. (2002) published a systematic review to assess the evidence for the acceptability and effectiveness of screening women for domestic violence in health care settings. Most studies reviewed came from the USA which probably limits the generalisability of all findings of the review; however the authors concluded that the implementation of screening programs in health care settings cannot be justified.

Nelson et al. (2004) completed a systematic review of the benefits and harms for screening procedures and interventions in health care settings for reducing harm from family and intimate partner violence for children, women and elderly adults. The intervention studies all included a comparison group. The studies had to be conducted or linked to primary care, obstetrics or gynaecology or emergency department settings and include a health provider in the process of assessment or intervention to be included. Whilst evidence emerged to support screening and interventions for child abuse, interventions for intimate partner violence against women were lacking and no interventions were identified for elderly adults.

Evidence of the benefit of specific interventions to assist those identified as suffering from domestic violence is needed, as is evidence that the screening itself does not cause harm. Proponents of screening argue that screening is a suitable model for integrating domestic violence response into health services for several reasons including that most women see health workers as appropriate people to be asking about domestic violence and a health facility is a safe place to be asked these questions (Howard, 2006).

Wellness clinics

In the US, National Centres of Excellence in Women's Health have been developed to implement novel community outreach methods in women's health issues. An integral part of many of the most successful outreach programs is collaboration and coordination between the Centres of Excellence and existing community groups. The objectives of virtually all of the programs are to improve education of lay women about various significant areas of women's health and to enhance community awareness of these health issues. Some of the programs also seek to improve women's access to healthcare through community clinics. Whilst formal evaluation has not yet been published, the number of women attending many of these activities is growing and the communities have demonstrated their interest in continuing these programs (Fife et al. 2001)

The Older Women's Network (OWN) is a community based network run for, and by, older women. This group, in turn, is linked to OWN Australia, the national organisation for older women. The

establishment of the Older Women's Network in Australia goes back to 1985 when a number of older women and workers in the NSW Combined Pensioners Association (CPA) established a network focused solely on older women and the issues that specifically impact older women's health comes via setting up the OWN Wellness Centres (Adamson, 1997). This intervention is an example of how many women's health services in NSW are provided by voluntary or non-government organisations. Women's health nurses and health promotion officers, play a key role in partnering and supporting these agencies.

Lifestyle risk factor screening

Heart disease, obesity, osteoporosis and cancer continue to be the major health concerns that interfere with the quality of life of women. The recommendations for various screenings and health care for post menopausal women have changed rapidly over the past two years but still include the basics of nutrition, exercise, testing for common illnesses and control of existing health problems. Providing high quality nursing care for women requires an understanding of these factors and of current screening and prescribing recommendations (Zurakowski, 2004).

The "Woman to Woman: Community Health Information Project" facilitates information access at selected community based women's health agencies in Houston, Texas. This project helped to establish and maintain a local health information infrastructure in the Greater Houston area for women's health agencies. The project had a one year implementation strategy. Each community-based women's health agency received three Internet-connected workstations. Project staff developed a web page to facilitate access to relevant information. Training sessions were provided for staff at community based organisations. A range of evaluation strategies were implemented including surveys, site visits, interviews and a focus group. A major finding of the project is that the provision of health information is a key component of any successful women's health program (Huber et al. 2003).

The WISEWOMAN intervention is a US initiative that provides "Well-Integrated Screening and Evaluation for Women Across the Nation" and delivers low-income, under-served women ages 40 – 64 with risk factor screening and lifestyle intervention and referral services to prevent cardiovascular disease. Mays et al. (2004) conducted a formative assessment of the impact of integrating WISEWOMAN into community health centre settings. Community health centres are key components of the nation's healthcare safety net for under-served populations, and, as such, they can play an important role in expanding access to health promotion and disease prevention services. They found that integration strategies need to be tailored to the resources, skills and capacities available within health centres.

Ainsworth et al. (2001) discussed the outcomes of eight studies delivered as part of the US Women's Health Initiative Community Prevention Study. All projects included samples of women from diverse racial/ethnic groups. Collectively these studies have involved over 18,000 women. The studies addressed five major areas: diabetes management, osteoporosis prevention, hysterectomy and hormone replacement therapy, cardiovascular risk reduction and physical activity. As published results of several of these studies are still forthcoming the major results reported relate to implementation issues. A cornerstone of successful public health action is community involvement and collaboration. The most sustainable programs appear to be those that include community participation in their conception, design and implementation. A major challenge for projects is conducting all elements of their investigations within a limited funding cycle. In studies working with communities with no prior relationship, it took considerable time to develop such relationships and conduct necessary formative research before the development of interventions.

Gender and special needs groups

Gender is a determinant of health (Miller and Rosenfeld, 1996). Gender analysis is increasingly required to inform how services are delivered to ensure greater participation of women and increase service accessibility.

Women's health recognises the unique requirements of special needs group such as women from Aboriginal and Torres Strait Islander backgrounds or those from Culturally and Linguistically Diverse communities (Eagar and Gordon, 2008).

The Australian Women's Health Network (2008) provided a position paper to government to influence the new national agenda and development of a new national women's health policy. They identify five priority areas for attention:

- Women's economic health and wellbeing
- Women's mental health and wellbeing
- Preventing violence against women (in all its forms)
- Women's sexual and reproductive health
- Improving women's access to publicly funded and financially accessible health services.

Discussion

In summary, women's health as a discipline has evolved over the last 25 years. It has migrated from a singular focus on reproductive health to an interdisciplinary field that serves the whole woman (Ricanati and Thacker, 2007). There is good evidence that investment in primary health care can positively impact women's health and, as such, should be a preferred option for the delivery of women's community health services (Hills and Mullett, 2005).

The focus for women's health services provided through community health centres is in the Health Resource Groups that focus on health promotion, early intervention and screening. Women of all ages have the potential to benefit from a focus on wellness.

Youth health

Background

The Australian Institute of Health and Welfare (2008b) has identified the main achievements in adolescent health and welfare as a reduction in rates of smoking, risky alcohol intake, and illicit drug use and an increase in year 12 retention rates for Indigenous students. Unfortunately the high rate of youth unemployment and underemployment, the over-representation of Indigenous youth in the juvenile justice system and the lack of information of the rate of youth assault and sexual assault are still areas for concern. Other areas of concern include mental illness, which accounted for 50% of the total burden of disease in young people in 2003, and injury, particularly injuries sustained in transport accidents (AIHW, 2007). In particular adolescents in Australia are affected by the burden of sexually transmitted infection, unwanted pregnancy, substance abuse, delinquency, obesity, road accidents, depression and self-harm. Risk factors for these problems may be effectively dealt with in primary and community care settings.

Evidence

Successfully meeting the primary health needs of adolescents involves recognising their unique developmental stage, delivering services in ways that overcome barriers to access, and supporting positive health and help-seeking behaviours (Sanci et al. 2005). A study by Mathias (2002) into youth-specific primary care found that there was clear evidence supporting the enhanced access to primary health care through youth-specific services, particularly in relation to reducing emergency department use.

There is emerging evidence that investment in various forms of treatment will have benefits in terms of community level reductions in crime, road trauma, hospital admissions and other serious drug-related harm by:

- Expanding brief intervention programs that target smoking and risky drinking, to primary health care, workplace and other community-based settings.
- Ensuring that treatment programs use the strongest evidence and are made widely accessible through greater emphasis on delivery at the community level.
- Incorporating interventions to support children in families with drug-using parents to break inter-generational patterns of drug use (Loxley, 2004).

A Review of the evidence by the National Crime Prevention Initiative (1999) recommended that services targeting key risk factors of criminal and other socially disruptive behaviours should consider programs focused on:

- Perinatal risk factors of prematurity, low birth weight, prenatal brain damage and birth injury.
- Parental risk factors of substance abuse, psychiatric disorders, and lack of warmth and affection.
- The problems associated with the transition from primary to secondary education. These should include reinforcing or booster interventions, given the multiplicity and diversity of challenges during the transition in question.

Cahill, Murphy and Hughes (2005) made a series of recommendations in regards to programs for youth in relation to substance abuse:

- Short-term programs should be provided through an organisation that provides a continuing point of connection for young people.

- Programs should include developmental as well as therapeutic aspects.
- The time required to build partnerships should be factored in when resourcing programs for high need youth.
- Programs need to have an ongoing source of funding.
- A focus on evaluation and the development and dissemination of evidence-based programs is needed to avoid replication of effort and reliance on ineffective or detrimental programs.

Family based drug prevention programs are a promising area of drug prevention (Cuijpers, 2003). Evidence around reducing harm associated with adolescent substance abuse supports interventions that incorporate a developmental approach to prevent onset of harmful patterns, universal approaches to reduce attractiveness of substance abuse, regulatory interventions, screening and brief interventions in a primary care setting and harm reduction strategies for young people involved in risky behaviour (Toumbourou, 2007).

In relation to adolescent sexuality and reducing the burden of sexually transmitted disease and unwanted pregnancy; research has more often pointed out what doesn't work. Sex education on its own is not an effective strategy for encouraging adolescents to defer parenthood (Harden et al. 2006). Trenholm and colleagues (2008) studied abstinence-only sexual education programs and found no significant impact on adolescent sexual activity, no difference in the rate of unprotected sex, however, there was some impact on knowledge about sexually transmitted disease and the effectiveness of birth control. Programs aimed at adolescent sexual behaviours, attitudes and behaviours should not focus on self-esteem but should address self-efficacy, self-control and youth development (Goodson et al. 2006).

Woolfenden et al. (2001) completed a systematic review of family and parenting interventions in children and adolescents with conduct disorder and delinquency (aged 10-17 years). They found that at follow up, family and parenting interventions significantly reduced the time spent by juvenile delinquents in institutions and there was also a significant reduction in the risk of being re-arrested, and the rate of subsequent arrests at 1-3 years. The authors concluded that family and parenting interventions for juvenile delinquents and their families have beneficial effects on reducing time spent in institutions. This has an obvious benefit to the participant and their family and may result in a cost saving for society rather than a saving to the health system.

Primary care physicians serve as gateways to specialist care, including mental health care. However, physicians are typically poorly trained in recognising and assisting young people with mental health problems and are often under time pressure to deal with symptoms that present outside the initial condition which prompted the young person to seek health care (Evans et al. 2005). There is evidence to suggest that many young people do not seek help for mental illness when presenting to primary care even though they may perceive that they may have a mental health problem (Haller, 2007). Primary care offers under-utilised potential for reaching out to youth and improving access to high-quality care for depression (Asarnow et al. 2002).

Discussion

There is evidence for effective programs that address youth health problems from a wider social and community level in relation to youth risk behaviours and reducing negative health outcomes. Primary and community care are integral to providing a wide range of health care services for young people as well providing a setting for programs aimed at reducing the health problems affecting young people. In the primary care setting, brief interventions in relation to substance abuse problems are effective as well as the screening, assessment and management of mental health problems. Community based programs aimed at reducing risk factors for crime, substance abuse, pregnancy, sexually transmitted disease and other problems disproportionately affecting young people require ongoing funding and commitment to evaluation and dissemination. Any cost savings are more likely to be in other costs to government, not reduced health costs.