

Australian Health Ministers' Conference

National Chronic

Disease Strategy

# NATIONAL CHRONIC DISEASE STRATEGY

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This Publication was prepared under the auspices of the National Health Priority Action Council and endorsed by the Australian Health Ministers' Conference. Copies can be obtained from the Australian Government Department of Health and Ageing website: www.health.gov.au/chronicdiseasestrategy or telephone 1800 500 053.

ISBN: 0 642 82820 2
PAN: 3777

Online ISBN: 0 642 82869 5

**Suggested citation**

National Health Priority Action Council (NHPAC) (2006), *National Chronic Disease Strategy*, Australian Government Department of Health and Ageing, Canberra.

In 2002–03, the Australian Health Ministers' Advisory Council agreed to the development of a national strategic policy approach to chronic disease prevention and care in the Australian population. The National Health Priority Action Council, drawing on a broad base of expert knowledge and consultations, has overseen the development process and endorsed the ensuing national strategic approach to chronic disease prevention and management in Australia.

The national approach has two elements:

1. The National Chronic Disease Strategy (the Strategy) which provides the overarching framework of national direction for improving chronic disease prevention and care across Australia. It is a nationally agreed agenda to encourage coordinated action in response to the growing impact of chronic disease on the health of Australians and the health care system.
2. Five supporting National Service Improvement Frameworks (the Frameworks) that cover the national health priority areas of asthma; cancer; diabetes; heart, stroke and vascular disease; osteoarthritis, rheumatoid arthritis and osteoporosis. The Frameworks outline opportunities for improving prevention and care in relation to these diseases, while not prescribing the detail of individual services in the Australian health system.

Preparation of the Strategy and Frameworks has been the work of expert groups and individuals, including leading clinicians, policy makers, peak consumer bodies, members of non-government organisations, and other health organisations.

The Strategy and Frameworks are high level, generic policy guides. They are designed to inform senior health policy makers, health planners, peak consumer organisations, health professionals, and health service managers, and for this reason they do not specifically target a general audience.

Each Framework is structured to reflect the phases of the patient journey—reducing risk, finding disease early, managing acute conditions, long term care and care in the advanced stages of disease. For those who are interested only in a specific phase of a condition, the Frameworks have been written so that individual chapters stand alone and may be read without necessarily referring to the whole document.

The Strategy and Frameworks do not contain implementation strategies. It is envisaged that practical implementation strategies will be the responsibility of individual jurisdictions in order to reflect the wide variation in health systems and other circumstances. Implementation strategies will be developed at all levels—national, state/territory and local levels—and will be tailored to meet local requirements as these are identified.

The National Chronic Disease Strategy and supporting National Service Improvement Frameworks are published as a six volume set:

| | |
|---|---|
| *Volume 1* | *The National Chronic Disease Strategy* |
| *Volume 2* | *National Service Improvement Framework for Asthma* |
| *Volume 3* | *National Service Improvement Framework for Cancer* |
| *Volume 4* | *National Service Improvement Framework for Diabetes* |
| *Volume 5* | *National Service Improvement Framework for Heart, Stroke and Vascular Disease* |
| *Volume 6* | *National Service Improvement Framework for Osteoarthritis, Rheumatoid Arthritis and Osteoporosis* |

# Foreword

The World Health Organization warns that the global burden of chronic disease is increasing rapidly, and predicts that by the year 2020 chronic disease will account for almost three quarters of all deaths. In Australia, the burden of chronic disease and its consequent effect on disability and death is growing in line with this trend.

Australia's health system must be able to respond in an appropriate and cost effective way to this challenge. Failure to prevent, detect and treat chronic disease at an optimal stage in its course impacts on affected individuals and their families and carers in terms of pain and suffering, and on the whole Australian community in productivity losses and high health care costs.

Accordingly, effective prevention and management of chronic disease is a key policy objective of the Australian and all state and territory health systems. Over the last three years governments have worked closely together to develop the first National Chronic Disease Strategy. The Strategy, developed under the auspices of the National Health Priority Action Council, and drawing on a broad base of expert knowledge and opinion, represents a major step forward in effectively managing chronic disease in Australia.

The Strategy is supported by five disease specific National Service Improvement Frameworks—covering asthma; cancer; diabetes; heart, stroke and vascular disease; osteoarthritis, rheumatoid arthritis and osteoporosis. The Frameworks draw on scientific evidence to identify opportunities for improvements to health service arrangements at the national, state, territory and local levels.

I thank the many people involved in the development of this key policy initiative, and recommend that all health policy makers, professionals, consumer organisations, service managers and other interested parties take the opportunity to be involved in the planning and practical implementation of the Strategy and Frameworks at national, state, territory and local levels.

Professor John Horvath AO
Chief Medical Officer
Australian Government Department of Health and Ageing
November 2005

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# Acknowledgements

The National Health Priority Action Council acknowledges with gratitude the many people who assisted in the preparation of this document.

Particular thanks are due to those who provided expert clinical advice:

Professor Bruce Armstrong
Professor Robert Burton
Professor John Chalmers
Professor Don Chisholm
Professor Alan Coates
Associate Professor Peter Colman
Professor John Eisman
Professor Ian Hickie
Dr Tony Hobbs
Dr Christine Jenkins
Dr Tim Mathew

Ms Karen Carey-Hazell of the Consumers' Health Forum and members of the National Public Health Partnership and the Standing Committee on Aboriginal and Torres Strait Islander Health provided invaluable input throughout.

All members of the National Chronic Disease Strategy Working Group and Reference Group (listed in the Appendix) made a significant contribution. In particular, thanks are due to the Chairs of these groups, Ms Kym Scanlon and Dr Martin Gallagher.

The Council also thanks Associate Professor Debra Rickwood, University of Canberra, who undertook the drafting of the Strategy, and those who prepared or provided commentary on the source material:

Associate Professor Malcolm Battersby, Flinders Behaviour and Health Research Unit, Flinders University
Professor John Catford, Deakin University
Associate Professor Glenn Salkeld, University of Sydney
Associate Professor Jonathon Craig, University of Sydney
Professor Helen Christensen, Australian National University
Associate Professor Gawaine Powell-Davies, and co-authors Julie McDonald, Annette Crothers and Tony Ovadia, Centre for General Practice Integration Studies, University of New South Wales.

Finally, the National Health Priority Action Council would like to extend particular thanks to the wide range of organisations and individuals who participated in national consultation workshops and provided written comments on the draft documents. The advice provided through these consultations was critical to the development of the Strategy.

# Abbreviations

| | |
|---|---|
| **ABS** | Australian Bureau of Statistics |
| **ACCHS** | Aboriginal Community Controlled Health Services |
| **AHMAC** | Australian Health Ministers' Advisory Committee |
| **AIHW** | Australian Institute of Health and Welfare |
| **ASAC** | Australian Screening Advisory Committee |
| **CDM** | Chronic Disease Management (MBS items) |
| **COPD** | Chronic Obstructive Pulmonary Disease |
| **EPC** | Enhanced Primary Care |
| **EHR** | electronic health record |
| **GP** | general practitioner |
| **PBS** | Pharmaceutical Benefits Scheme |
| **MAHS** | More Allied Health Services program |
| **MBS** | Medical Benefits Schedule |
| **NACCHO** | National Aboriginal Community Controlled Health Organisation |
| **NCDS** | National Chronic Disease Strategy |
| **NHPAC** | National Health Priority Action Council |
| **NHPC** | National Health Performance Committee |
| **NHPF** | National Health Performance Framework |
| **NPHP** | National Public Health Partnership |
| **SNAP** | Smoking, Nutrition, Alcohol and Physical Activity Framework for general practice |
| **WHO** | World Health Organization |

# Need for a National Chronic Disease Strategy

Most of the burden of disease for Australians is due to chronic disease, and its prevalence is rising. Chronic disease is estimated to be responsible for around 80% of the total burden of disease, mental problems and injury, as measured in terms of disability-adjusted life years. Effective responses to this significant health challenge must be found to protect the quality of life and wellbeing of all Australians, and ensure that the health system has the capacity to meet the demands placed upon it.

Long term conditions occur across the whole spectrum of illness, mental health problems and injuries. Both communicable and non-communicable diseases can become chronic, although the term is generally applied to non-communicable diseases. The Australian Institute of Health and Welfare (AIHW) provides the following list of elements to define chronic diseases.[1]

Chronic diseases:

- have complex and multiple causes
- usually have a gradual onset, although they can have sudden onset and acute stages
- occur across the life cycle, although they become more prevalent with older age
- can compromise quality of life through physical limitations and disability
- are long term and persistent, leading to a gradual deterioration of health
- while usually not immediately life threatening, they are the most common and leading cause of premature mortality.

According to *Australia's Health 2004*, chronic diseases are the primary health concerns for Australia, now and in the future.[2] For example:

- Cardiovascular disease is the leading cause of death for both males and females, despite a marked drop in death rates since the late 1960s. About one in five Australians had cardiovascular problems in 2001 and around 1.1 million have a disability as a result.
- Cancer ranks second as an overall cause of death, and although death rates fell between 1992 and 2002, it now causes more deaths among middle aged Australians than cardiovascular disease.
- Lung cancer caused most cancer deaths in Australia in 2002, ranking first in males and a close second to breast cancer in females.
- Diabetes prevalence has more than doubled over the past two decades and is estimated to affect around one million Australian adults. Type 2 diabetes is predicted to have the largest increase of the chronic diseases by 2020.
- Asthma affects about 14% of children and 10% of adults. The proportion of children with asthma increased dramatically in the 1980s and early 1990s.
- Arthritis and other musculoskeletal conditions are estimated to affect more than 6 million Australians (3 in every 10) in 2001. These cause more disability than any other medical condition, affecting about 34% of all people with a disability.

The rise in prevalence of chronic disease is relatively recent. It is within the 20th century that chronic diseases surpassed infectious diseases and injuries as the dominant health concerns. This change can be attributed to a range of factors, including:

- *Major advances in the prevention and treatment of infectious diseases and injuries*, which have reduced their incidence and prevalence.[2] Exceptions to this trend are infectious diseases such as Hepatitis B and C and HIV/AIDS, which themselves have a chronic course.
- *Demographic changes*; people are living to much older ages and the average age of the population is substantially older.[2] Most Australians can now expect to live for an average of 80 years. For females, life expectancy at birth in 2002 was 82.6 years and for males it was 77.4 years. The prevalence of chronic disease is strongly related to older age, and health expenditure for people aged 65 years and over is three times that for the population as a whole.[2] In marked contrast, the life expectancy of Aboriginal and Torres Strait Islander peoples is about 20 years lower than for other Australians, and chronic diseases occur much earlier in life.[3]
- *Lifestyle changes*, which have increased exposure to risk factors for chronic disease. The AIHW has identified seven major largely preventable risk factors that impact adversely on the incidence and prevalence of many chronic diseases.[1] About one third of the chronic disease burden can be attributed to these risk factors, most of which are increasing in prevalence:
  - tobacco smoking
  - risky and high risk alcohol use
  - physical inactivity
  - poor diet and nutrition
  - excess weight
  - high blood pressure
  - high blood cholesterol.

Chronic diseases are most prevalent in more disadvantaged sectors of the population, and this makes prevention and treatment more complex.[4] Population groups with a higher prevalence of chronic disease include older Australians, especially the frail aged; people experiencing socio-economic disadvantage; and people with mental illness and physical and intellectual disabilities.

Of particular note is the higher prevalence of chronic disease for Aboriginal and Torres Strait Islander peoples. In 1999–2001, over two-thirds of excess deaths for Aboriginal and Torres Strait Islander peoples were accounted for by diseases of the circulatory system, respiratory system, and endocrine, nutritional and metabolic diseases; self reported diabetes was almost four times as high as for other Australians.[3]

Chronic diseases pose special challenges for the health system. People with chronic diseases use health services and medicines frequently and over extended periods of time. They often develop complex conditions with associated co-morbidities, including mental health problems such as depression.

Consequently, chronic diseases are associated with high health care expenditure. For example, the health conditions shown in Table 1, most of which are long term, account for the greatest health expenditure in Australia. Together they account for almost $34 billion, and nearly 70% of allocated health expenditure.[5]

## Table 1. Health expenditure 2000–01, Australia[5]

| | | |
|---|---|---|
| Cardiovascular diseases | $5.5B[(a)] | 10.9%[(b)] |
| Nervous system disorders | $4.9B | 9.9% |
| Musculoskeletal conditions | $4.6B | 9.2% |
| Injuries | $4.0B | 8.0% |
| Respiratory diseases | $3.7B | 7.5% |
| Mental disorders | $3.7B | 7.5% |
| Oral health | $3.4B | 6.9% |
| Neoplasms | $2.9B | 5.8% |
| Diabetes | $0.8B | 1.6% |

[(a)] Health expenditure, [(b)] Per cent of allocated health expenditure

Despite the increasing prevalence of chronic disease and its overwhelming impact on the health system, modern health services and systems remain oriented to respond to acute conditions such as infectious diseases and injuries. Some adjustments have been made but, on the whole, current service delivery and funding arrangements favour an acute and short term response.

Chronic diseases are the leading cause of disability in the community and are associated with high use of disability and community support services. People require a wide range of services, which are provided in a range of settings including hospital, home and community, and through the public, private and non-government sectors.

Importantly, however, there is a growing evidence base for chronic disease policy interventions and a range of responses that can be used to reduce the growing burden of chronic disease. A continuum of chronic disease prevention and care interventions corresponds to different population groups—people without disease, those at risk of disease, and people currently coping with chronic disease.

Most importantly, a number of the major chronic diseases can be prevented or their onset delayed. Other chronic diseases cannot be prevented on the basis of current knowledge, but their progression can be slowed and associated complications reduced. An understanding of the risk factors for chronic disease, and concerted action to reduce risk for all Australians, must be a major platform for action.

Furthermore, for people who develop chronic disease, health system responses must be matched to level of health care need. Figure 1 shows three levels of care that the health system must have the capacity to provide. These correspond to different levels of disease complexity. Notably, there is considerable scope for improved self-management of chronic disease. Greater flexibility, and responsiveness of the health system to changing patient needs, will ensure an appropriate level of care and quality of life for people with chronic disease and their families and carers.

In summary, it is evident that there is an urgent need to identify practical and achievable approaches to develop Australia's health system to meet current and future demands for chronic disease prevention and care. The development and implementation of the National Chronic Disease Strategy is critical to addressing this significant health challenge.

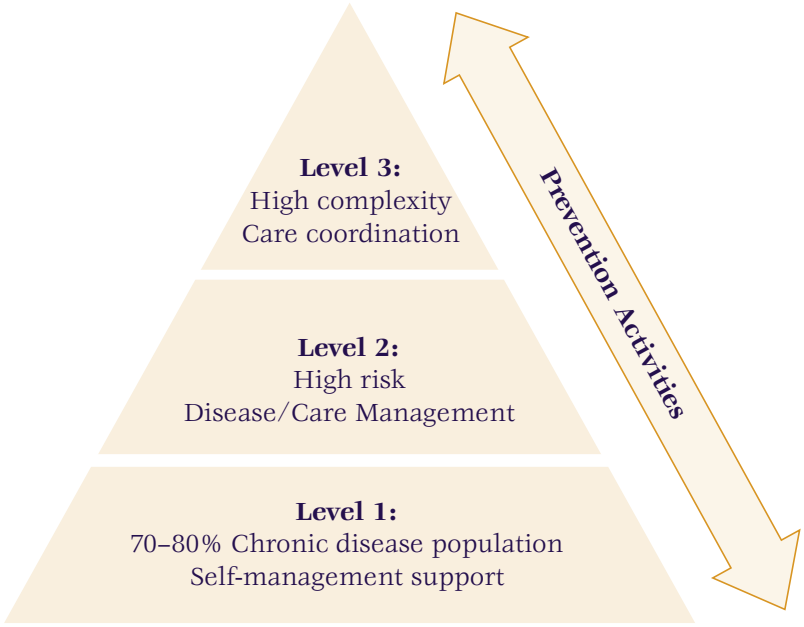



Figure 1. Levels of health care for people with chronic disease (adapted)[6]

# Background

The National Chronic Disease Strategy has been developed to provide national policy directions to improve chronic disease prevention and care across Australia. It is a nationally agreed agenda to encourage coordinated action in response to the growing impact of chronic disease on the health of Australians and our health care system.

The NCDS has been developed over a two-year period under the guidance of the National Chronic Disease Strategy Reference Group, the National Chronic Disease Strategy Working Group, and the National Health Priority Action Council. These groups have provided representation from the Australian Government and all State and Territory Governments, as well as health consumers, the National Public Health Partnership, National Aboriginal Community Controlled Health Organisations, and clinical expertise through Expert Advisory Groups.

Two major workshops were held to determine the scope of the NCDS, and a national consultation was undertaken in all states and territories in June 2005 to receive feedback on a Consultation Draft of the NCDS. The NCDS has been revised in response to this input and reflects the wide range of views of the many and varied stakeholders with an interest in reducing the burden of chronic disease.

The NCDS builds on the work of all jurisdictions to improve the prevention and management of chronic disease. It has also been informed by the development of the National Service Improvement Frameworks. These are high level guides that inform all parts of the health system about the most effective care for the chronic diseases of:

- asthma
- cancer
- diabetes
- heart, stroke and vascular disease
- osteoarthritis, rheumatoid arthritis and osteoporosis.

These disease specific Frameworks have been developed alongside the NCDS, and the NCDS addresses all the common elements, taking a system wide approach.

The NCDS focuses mainly on the directions to be taken by the health system. This focus recognises that the health sector must achieve significant and sustainable change to cope with current and future demand for chronic disease prevention and care.

However, the NCDS recognises that the health system cannot work in isolation from other sectors and services, and must take a leadership role in advocating, engaging and partnering with other sectors to influence the social and environmental factors that determine the burden of chronic disease. An effective response to chronic disease prevention and care requires a whole-of-government and whole-of-community response.

Of special relevance for Australia's federated system of government are the different roles, responsibilities and levels of accountability of local, State/Territory Governments and the Australian Government.

As services are organised and resourced very differently across Australia, the NCDS does not attempt to prescribe how the nationally agreed directions should be actioned at a jurisdictional or local level. Rather, practical implementation plans will need to be developed at national, state/territory, regional and local levels to identify the priorities and relevant actions for each level.

The NCDS provides a range of agreed national directions that underpin collaboration at all levels. This will ensure that investments and priorities are aligned and working together to make the significant progress required to meet the need for chronic disease prevention and care, now and in the future.

# Overview of the National Chronic Disease Strategy

The NCDS provides a framework to strengthen Australia's capacity to meet the challenges arising from increasing prevalence of chronic disease. It seeks to improve health outcomes and reduce the impact of chronic disease on individuals, families, communities and society. It does this by providing an overarching framework of agreed national directions for improving chronic disease prevention and care across Australia.

The NCDS recognises that extensive work into chronic disease prevention and care has already been undertaken by all jurisdictions, with many States and Territories having their own chronic disease strategies.

A number of complementary national initiatives also consider health service improvements for chronic disease prevention and care. The National Service Improvement Frameworks concentrate on service improvement for specific diseases—asthma; cancer; diabetes; heart, stroke and vascular disease; and osteoarthritis, rheumatoid arthritis and osteoporosis.[7] Together, these represent the major burden of chronic disease in Australia.

Mental health problems and mental illness also contribute substantially to the burden of chronic disease, and have been separately considered in the *National Mental Health Plan 2003–2008*[8]. Mental health issues are incorporated throughout the NCDS in two ways: firstly, in the context of the high prevalence of chronic disease among people with mental illness[9]; and secondly, because mental health problems and mental illnesses, particularly depression and anxiety, often co-occur with chronic disease and can impact on its complexity, progression and management.[10]

Due to the overwhelming and growing burden of chronic disease, improved outcomes will be achieved only through increased, focussed and systematic action at all levels and across the range of chronic diseases and their risk factors. Future action needs to build on current best practice in existing international, national, jurisdictional and local approaches, and investigate and incorporate emerging evidence.

The NCDS focuses on the directions to be taken by the health system, recognising that the health sector must achieve significant and sustainable change to meet this health challenge. The health system must develop more consistent, integrated, evidence-based, practical and effective (including cost effective), consumer focussed approaches to improve the prevention, detection and management of chronic disease.

The health sector must also take a leadership role in advocating, engaging and partnering with other sectors to influence the social and environmental factors that determine the current and future burden of chronic disease.

There must also be a deliberate focus on the needs of population groups that are disproportionately affected by chronic disease, such as Aboriginal and Torres Strait Islander peoples, older Australians, and people experiencing socio-economic disadvantage.[1]

There is a need to develop a coherent, system-level approach to the prevention, detection and management of all chronic disease across Australia. It is only through comprehensive, whole-of-government and whole-of-community approaches that substantial and sustainable change can be achieved.

# OBJECTIVES

The primary objectives of the NCDS are to:

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

Underlying these objectives is the theme of strengthening activity across the continuum of chronic disease prevention and care. Figure 2 presents some of the core elements of this continuum, which incorporate health promotion for the whole population to end of life care for people in the final stages of chronic disease.

Importantly, Figure 2 shows the person and their family and carers at the centre. They, and the elements of care that span early detection to end of life care, are embedded within a broader health promotion and prevention and risk reduction framework.

Figure 2 also recognises the developmental stages of chronic disease and applies for people without disease; at risk of disease; and with chronic disease of varying levels of complexity, including people needing palliative care. The elements must incorporate the entire lifespan, recognising that although chronic diseases generally develop with older age, the origins of many risk factors are early in life, and some chronic diseases affect young people.

What is not evident in Figure 2, however, is the fundamental need for culturally safe and appropriate approaches across all the elements of prevention and care.

The entire continuum must be a focus for improved outcomes related to health promotion, prevention, detection, management, self-management, rehabilitation and end of life care. It is only through committed action in all the sectors and settings that impact on chronic disease prevention and care, both within and beyond the health system, that real progress will be achieved.

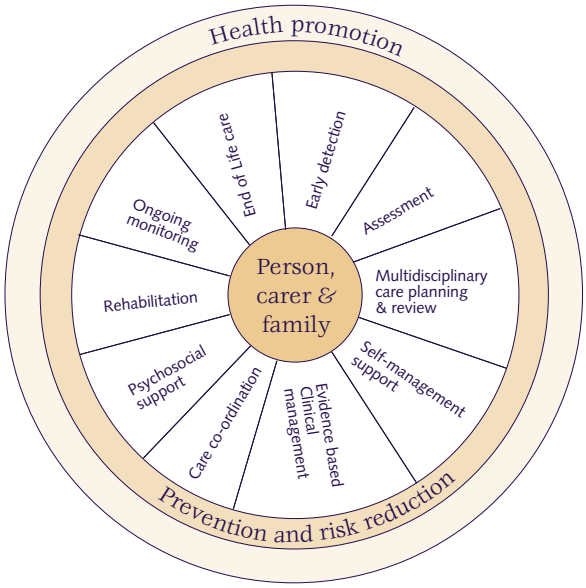



Figure 2. Core elements of the continuum of chronic disease prevention and care[11]

# PRINCIPLES

Key principles have been identified to guide the focus of strategies implemented under the NCDS, and all actions undertaken under the strategy should be designed to apply the following principles.

## Principle 1: Adopt a population health approach and reduce health inequalities

A population health approach aims to improve the health of the whole population and reduce health inequities among population groups. It acknowledges the wide range of social, economic and environmental factors that influence the development and progression of chronic disease, as well as the behavioural factors that affect health.

The needs of all Australia's population groups and communities must be recognised and addressed, and the special challenges confronted to meet the needs of population groups disproportionately affected by chronic disease, such as Aboriginal and Torres Strait Islander peoples, older Australians, people who are socio-economically disadvantaged, and people with mental illness, physical or mental disabilities.

Chronic disease prevention and care must be responsive to the needs of people:

- from all cultural and linguistic backgrounds
- across all stages of the lifespan, including children and older Australians
- of all socio-economic and educational backgrounds
- living in all types of settings, including rural and remote communities.

## Principle 2: Prioritise health promotion and illness prevention

A significant proportion of the chronic disease burden can be prevented, and health promotion and risk reduction must be prioritised for people at all stages of chronic disease—people without disease, at risk of disease, and with chronic disease of varying levels of complexity.

Health promotion is the process of enabling people to increase control over and improve their health[12]. Interventions must include actions not only at the level of the individual, but also aimed at building healthy public policy, creating supportive environments, strengthening community action, developing personal skills and reorienting health services.[13]

Prevention and risk reduction strategies acknowledge that there are known preventable risk factors, such as smoking and lack of physical activity, that impact on the development and progression of many of the chronic diseases. These risk factors should be the focus of significant, targeted and coordinated action.

Using the emerging evidence, appropriate and effective prevention interventions must be identified, implemented and sustained by engaging not only the health sector in health promotion and illness prevention, but also reaching beyond the health sector to all those sectors and settings that impact on the risk and protective factors for chronic disease.

## Principle 3: Achieve person centred care and optimise self-management

Person centred care puts people at the forefront and centre of their own health care. It means that the 'patient journey', comprising all of a person's experiences of the health system—for each episode of care, across all health care settings, and across the lifespan—are coherent over time and are oriented toward making a positive difference as determined by the person him/herself. Through a person centred approach, the health system is driven by outcomes relevant to the person and their family and carers.

Optimising self-management is essential to achieving person centred care and needs to be supported at all levels of the health system. Self-management enhances people's capacity to take responsibility for their own health and, with the support of health care providers, make informed decisions and undertake the health actions that maximise their wellbeing and quality of life.

### Principle 4: Provide the most effective care

People should receive the most effective chronic disease prevention and care across the care continuum, from detection and diagnosis to ongoing risk reduction, management and end of life care. Effective care achieves the desired patient outcomes based on the best available evidence at the time, including evidence of cost effectiveness, and practice needs to be updated in response to emerging evidence.

The most effective care will have the capacity to delay the progression of the disease and the onset of complications, co-morbidities and disabilities. It will achieve outcomes desired by the person, including improving quality of life, reducing hospitalisations, and maintaining functional capacity, independence and participation in work and social activities.

### Principle 5: Facilitate coordinated and integrated multidisciplinary care across services, settings and sectors

Care for people with chronic disease generally involves multiple health care providers across multiple settings. This includes general practice, community health, hospitals, private providers, and community and non-government organisations. It may also require community and disability support, as well as support from family and carers.

The integrated provision of chronic disease prevention and care requires a flexible health system that can coordinate care planning across services, settings, sectors and over time. This means commitment from a range of services and sectors, and the ability to work together to achieve shared goals. Multidisciplinary care planning must be person centred, incorporate prevention, self-management and co-morbid conditions, and be responsive to changing patient needs.

Primary health care networks which link primary, acute and specialist care within a broader network of allied health and community support services are a key element in providing patients with complex needs integrated multidisciplinary care, and this capacity must be enhanced. Health care practitioners operating in effective primary health care networks are best placed to provide a team based approach.

### Principle 6: Achieve significant and sustainable change

The health system requires significant change to achieve quality chronic disease prevention and care that is able to meet demand.

Sustainable quality chronic disease prevention and care requires effective and ongoing collaborations between governments at all levels, and the non-government and private sectors.

Effective leadership by the health sector will significantly progress change by supporting the implementation of cost effective strategies that can be embedded within the health and community care systems and sustained for the long term.

There are many current national, state and territory, and local initiatives working toward improvements in chronic disease prevention and care, and their achievements must be sustained and enhanced. At the same time, initiatives to address gaps must also be developed and integrated with current approaches. The widespread adoption of practical and evidence-based approaches must be achieved.

### Principle 7: Monitor progress

Throughout implementation of the NCDS there must be a focus on developing, collecting and the timely reporting of useful measures to monitor progress against expected outcomes. Such monitoring will determine whether appropriate directions have been identified to achieve success in terms of the objectives, and whether effective implementation is taking place.

## ACTION AREAS

Four key action areas have been identified as essential to achieving the objectives and putting into practice the principles of the NCDS. The action areas reflect the overall theme of ***chronic disease prevention and care across the continuum***.

Key directions are identified within each of the action areas. These are the agreed directions that, if effectively implemented, are expected to achieve the objectives of the NCDS over the next 5–10 years.

### Action area 1: Prevention across the continuum

While chronic diseases are among the most common and costly of all health problems, they are also among the most preventable. Health promotion and risk reduction are applicable across the entire continuum of chronic disease prevention and care—to prevent the disease itself, where possible, and to prevent progression of the disease and its associated complications and co-morbidities.

Focussed and enhanced investment in effective health promotion and risk reduction interventions is expected to reduce the future impact of chronic disease by significantly reducing its incidence, prevalence, cost, and personal and community burden.

### Action area 2: Early detection and early treatment

Early detection supports early treatment, which can improve health outcomes by reducing premature mortality, delaying the progression and complications of disease, improving quality of life and the ability to self manage, and preventing or delaying admission to residential care. Early detection and treatment may also avoid unnecessary hospital admissions and the high cost of complex treatments.

Identifying and effectively implementing evidence-based and cost effective approaches to early detection and early treatment will significantly improve the health outcomes and quality of life of people with chronic disease.

### Action area 3: Integration and continuity of prevention and care

A challenge for chronic disease prevention and care is:

- providing integrated and continuous care across time, different stages of disease, co-morbid conditions, and different services and service providers
- supporting self-management and the contribution of family and carers.

Integrated care means that health services work collaboratively with each other, and with patients and their families and carers, to provide person centred optimal care. Such care is experienced by patients and their families and carers as coherent, connected and consistent with their care needs and personal context.

Achieving better integration and continuity of care is expected to maximise health outcomes for people with chronic disease by ensuring that all their health needs are met in a timely manner, and that their 'patient journey' is a more positive experience.

### Action area 4: Self-management

Self-management is the active participation by people in their own health care. Self-management incorporates health promotion and risk reduction, informed decision making, care planning, medication management, and working with health care providers to attain the best possible care and to effectively negotiate the often complex health system. All people self manage to some degree, but there are opportunities to support people and their families and carers to develop skills and resources to maximise their capacity to self manage.

Making self-management a key action area recognises that many of the health behaviours required to effectively manage chronic disease are the daily responsibility of people themselves. It is essential that supports are put in place at all levels of the health system to optimise people's ability to self manage. This will not only improve health outcomes and quality of life for people with chronic disease and their families and carers, but also reduce the burden of chronic disease care on the health system.

## IMPLEMENTATION ACTIONS

Working toward the key directions identified in each of the action areas will require specific implementation actions.

### Implementation action 1: Building workforce capacity

The capacity of the workforce to deliver quality, person centred chronic disease prevention and care must be enhanced in terms of both availability and skills.

### Implementation action 2: Developing strategic partnerships

The development of strategic partnerships will be essential to providing coordinated and integrated multidisciplinary care that incorporates and supports health promotion, risk reduction and self-management.

### Implementation action 3: Enhancing investment and funding opportunities

Enhanced and innovative investment and funding opportunities need to be found to support implementation of the NCDS.

### Implementation action 4: Developing infrastructure and information technology support

Better infrastructure and information technology support are fundamental to achieving more integrated chronic disease prevention and care across the 'patient journey'.

Each implementation action requires significant commitment and investment at all levels. While much of the change needs to occur at the micro level of patients, practitioners and individual health services, there is extensive change that needs to occur at more macro levels to create the organisational and funding environments that enable progress. Progress will require leadership by the health sector, and focussed, collaborative and strengthened action across the whole-of-government and whole-of-community.

# Action area: Prevention across the continuum

Prevention approaches focus on the risk and protective factors that influence the development or progression of chronic disease. Risk factors are those that increase the likelihood that a disease will develop or progress, while protective factors decrease this likelihood. Protective factors comprise activities that promote health overall, as well as those that reduce the impact of potential risk factors.

The population health approach acknowledges that there is a wide range of social, economic and environmental factors that have both direct effects on health and also influence behavioural factors that affect health and access to health care.

Health promotion represents a comprehensive social and political process, not only embracing actions directed at strengthening the skills and capabilities of individuals, but also actions directed towards changing social, environmental and economic conditions to alleviate their impact on public and individual health. Factors such as income, employment, education and social inclusion are a critical focus for promoting health and reducing risk across Australian society, and require collaborative and concerted whole-of-government and whole-of-community action.[14]

The Australian Institute of Health and Welfare defines prevention as 'action to reduce or eliminate or reduce the onset, causes, complications or recurrence of disease'.[15] Prevention and lifestyle modification can assist the well population, those at risk and those with disease.

There are clearly established preventable risk factors for chronic disease. These can be broadly grouped into two categories: behavioural and social risk factors, and biomedical risk factors, as shown in Table 2[1].

Several of these risk factors are common to many of the major chronic diseases, (tobacco smoking, physical inactivity, poor diet and nutrition, harmful alcohol use, high blood pressure, excess weight and high blood cholesterol), and together they account for about one third of the chronic disease burden. Nine in ten adult Australians have at least one of these common risk factors, with 54% of males and 45% of females having a combination of two or more.[1] Aboriginal and Torres Strait Islander peoples are at heightened risk according to all of these common risk factors.[3]

Major gains are possible by strategically focussing prevention interventions on the common risk factors that underlie a range of chronic diseases, often called a 'clustered' approach.[52]

Furthermore, health promotion and risk reduction interventions are relevant across the disease continuum, and not just for healthy people. For example, the benefits of reducing the risk factor of tobacco smoking is evident for people regardless of whether they are currently healthy, at risk of chronic disease, or living with chronic disease.

### Table 2. Risk factors for chronic disease[1]

| **Behavioral and social risk factors:** | **Biomedical risk factors:** |
|---|---|
| Poor health in early childhood | Excess weight* |
| Tobacco smoking* | High blood cholesterol* |
| Risky and high risk alcohol use* | High blood pressure* |
| Poor diet and nutrition* | Genetic factors |
| Physical inactivity* | Depression |
| Excessive sun exposure | |
| Social isolation | * indicates risk factors common to several major chronic diseases |

# CURRENT APPROACHES TO PREVENTION

Australia has made some progress toward preventing chronic disease. Falling mortality rates for some diseases, such as some cancers and asthma[2], have improved wellbeing for individuals and reduced costs to the economy.

Tobacco control is an example where Australia has led the world. Between 1991 and 2004, daily tobacco smoking rates declined by almost 30%, and the daily smoking rate for people aged over 14 years is currently 17.4%, which is the lowest ever reported in Australia and among the lowest reported rates in the world.[16] However, almost three million Australians still smoke on a daily basis, and the uptake of smoking by young people, particularly young women, is cause for concern. Furthermore, 45% of Aboriginal and Torres Strait Islander peoples aged over 14 years report being daily smokers.[3]

Alcohol consumption patterns remained relatively stable between 1991 and 2004, but 10% of people aged over 14 years consume alcohol at levels that are considered risky or a high risk to health in the long term.[16]

In contrast, obesity is on the rise, with levels rapidly increasing over the past 20 years. Australia now ranks as one of the fattest nations alongside the United Kingdom and the United States.[17] Approximately nine million Australian adults are overweight or obese, and 3.3 million are in the high risk obese group.[18] Of even greater concern, the level of obesity in children tripled between 1985 and 1995.[19]

There has been a significant decrease in the number of Australians who undertake enough physical activity to achieve health benefits: less than half of Australian adults are sufficiently active, and 32% of children do not engage in any exercise.[20,21]

Poor diet, in the form of inadequate fruit and vegetable consumption and poor calcium intake, is common. It has been estimated that increasing consumption of fruit and vegetables by just one serve a day would save the Australian health care system $157 million annually in relation to heart disease alone.[22,23] Similarly, increasing dietary calcium intake could reduce the prevalence of osteoporosis.

Australia currently has in place a wide range of national prevention strategies (see Table 3). All jurisdictions are contributing to these initiatives in substantial ways. However, there is an urgent need for more coordinated and systematic implementation of these prevention initiatives. Australia needs to build on its successes to date and achieve improved outcomes through increased investment in prevention.

### Table 3. National prevention strategies

| |
|---|
| Smoking, Nutrition, Alcohol, Physical Activity (SNAP) Framework for General Practice |
| Public Health Action Plan for an Ageing Australia |
| Healthy Weight 2008—Australia's Future: The National Action Agenda for Children and Young People and their Families |
| National Public Health Strategic Framework for Children 2005–2008 |
| National Hepatitis C Strategy 2005–2008 |
| National Oral Health Plan 2004–2013 |
| National Tobacco Strategy 2004–2009: The Strategy |
| Cultural Respect Framework for Aboriginal and Torres Strait Islander Health 2004–2009 |
| National Drug Strategy: Australia's Integrated Framework 2004–2009 |
| Be Active Australia: A framework for health sector action for physical activity 2005–2010 |
| National Injury Prevention and Safety Promotion Plan: 2004–2014 |
| National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003–2013 |
| National Mental Health Plan 2003–2008 |
| National Drug Strategy: Aboriginal and Torres Strait Islander Peoples Complementary Action Plan 2003–2006 |
| Eat Well Australia: An Agenda for action in public health nutrition 2000–2010 |
| National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan 2000–2010 |
| Blueprint for nation-wide surveillance of chronic diseases and associated determinants |

# FUTURE DIRECTIONS FOR PREVENTION

## Invest in prevention

The Ottawa Charter outlines health promotion actions as building public policy, creating supportive environments, strengthening community action, developing personal skills and reorienting health services.[12]

Health promotion strategies that integrate several of these approaches are particularly effective at achieving prevention outcomes. For example, part of Australia's progress in reducing tobacco smoking is due to legislation, regulation and fiscal strategies that have increased access to smoke-free environments, provided financial disincentives for smoking and limited tobacco advertising. These approaches have often been preceded and supported by community advocacy and the strong involvement of non-government organisations.

The key directions for prevention across the continuum will have greatest impact if delivered as part of an integrated approach for health promotion.

**Key direction 1**: Progress the implementation and ongoing monitoring of current national prevention strategies (see Table 3).

## Creating healthy environments

Health promotion approaches acknowledge the integral links between physical, mental and social wellbeing, and recognise that the environments in which people live, work and play have a major impact on health outcomes.

Home, education, workplace and community environments are critical for good health and wellbeing, and are all settings where protective factors, such as physical activity and good nutrition, can be actively promoted and risk factors, such as tobacco smoking and excessive sun exposure, reduced. They are also settings where better understanding of healthy lifestyles can be encouraged and reinforced.

Healthier environments can be achieved through increased focus on health promotion strategies, such as public policy and community action. For example, in Tasmania, state government departments have come together to form a cross-sector 'cluster' to address health and wellbeing issues in response to a community driven vision of priorities (the Tasmanian *Together* process). The cluster makes it possible to use a whole-of-government approach to address health and wellbeing policy issues that are too large to be the responsibility of any one department.

Strong communities that are inclusive of all community members are essential to creating healthy environments.[24] Communities need to be empowered to identify the risk and protective factors relevant to their context, and community advocacy needs to be supported where it is drawing attention to significant issues. Community action is required to implement appropriate approaches that support community members to achieve the behavioural, environmental and organisational change required for a healthy community.

Building local capacity through community strengthening initiatives needs to be supported by the health and other sectors. The health sector must provide leadership, and work in partnership with other sectors and with communities, to identify opportunities to provide environments that help people make healthy choices. For example, town planning processes can be used to improve physical activity by influencing people's transport and recreation choices; excessive sun exposure can be reduced through policies for shade provision in schools and public places.

**Key direction 2:** Promote, develop and support approaches, such as public and organisational policy and community action, that create and support health promoting environments.

## Starting early is essential for success

Health promotion and risk reduction must start early in life, and take a whole of life approach.

There is compelling evidence that children's early life experiences strongly affect their health and wellbeing later in life.[25] Risk factors that increase vulnerability to a range of chronic diseases in adulthood include adverse early life events such as fetal exposure to tobacco smoke and alcohol, low birth weight, malnutrition, repeated infections, and abuse and neglect.[26,52] The children most at risk are those with multiple risk factors, and ongoing support needs to be provided for these children to reduce health inequalities later in life.

Improving maternal physical and mental health, including supporting healthy pregnancies, is the key to preventing many of these risks, along with supporting healthy home environments. For example, homes provide direct exposure to tobacco smoke/clean air and poor/good nutrition. Best practice approaches need to be implemented to support parents and communities to provide safe and healthy environments for babies and young children.

**Key direction 3:** Improve maternal health in the pre- and post-natal periods.

**Key direction 4:** Reduce maternal smoking during pregnancy and exposure to tobacco smoke during first year of life.

**Key direction 5:** Provide parenting support for infants at risk of abuse and neglect.

Full breastfeeding for at least the first six months of life offers considerable health benefits to infants, and potential benefits over the entire lifespan of the individual. Breast fed infants are less likely to develop high blood pressure, some infectious diseases, and some diet related chronic diseases later in life. It has been conservatively estimated that a minimum of $11.5 million could be saved each year in Australia if the prevalence of breastfeeding at three months was increased from the current level of 60 per cent to 80 per cent.[27]

**Key direction 6:** Promote exclusive breast feeding for the first six months of life.

## Promoting health and wellbeing during the early school years

Many attitudes and behaviours that impact on adult health are formed in childhood and are shaped at home through family values and media exposure. These include: smoking; poor diet and nutrition; lack of physical activity; obesity; and risky and high risk alcohol use.

The school years are an ideal time to encourage the uptake of healthy behaviours and attitudes, and schools are an opportunistic and effective setting in which to do so. Many programs are already in place in schools, and these need to be widely supported and their effectiveness enhanced.

Pre-school and childcare are also important settings for starting early, as they provide opportunities to begin earlier in life to encourage healthy eating, active lifestyles and positive parenting approaches.

**Key direction 7:** Promote healthy eating and physical activity for pre-school and school aged children.

**Key direction 8:** Prevent uptake of tobacco smoking and risky and high risk alcohol use among school aged children.

## Raising community awareness and encouraging action

Community understanding of the need for sustained action to prevent chronic disease must be improved. Individuals, families and communities need better health awareness, knowledge and support to make healthy choices and avoid health risks.

It is important to recognise, however, that raising awareness on its own does not produce lasting behavioural change. Awareness and knowledge must be underpinned by broader strategies, such as healthy environments and public policies that support healthy choices.

The effectiveness of health messages will also be enhanced if consistent messages are reinforced in multiple settings—through media, community settings, workplaces, educational settings and health services. Peak bodies and non-government organisations that focus on particular health conditions or risk factors have an important leadership role in raising community awareness and advocating for action.

Social marketing and broader health promotion approaches that target the four most common behavioural risk factors for chronic disease—tobacco smoking, physical inactivity, poor diet and nutrition, and risky and high risk alcohol use—will significantly improve community understanding of these health risks.

**Key direction 9:** Provide consistent health messages that address the common behavioural risk factors for chronic disease—tobacco smoking, physical inactivity, poor diet and nutrition, and risky and high risk alcohol use.

While the messages should be consistent, the approaches used must be age relevant and culturally appropriate for the targeted population group. Individuals, families and communities need to be able to understand health messages and be supported to develop the skills to achieve and maintain healthy lifestyles.

Greater emphasis must be placed on ensuring that appropriate health messages reach population groups that may lack access to such information because of older age, geography, socio-economic disadvantage, cultural or linguistic background, discrimination, incarceration, mental health problems or disability. These population groups are likely to require tailored approaches, embedded within broader health promotion actions, to support them in adopting healthy lifestyles and behaviours.

**Key direction 10:** Ensure consistent health messages are tailored to effectively reach and achieve behaviour change for the targeted population group.

## Focussing on health inequalities

While the majority of Australians enjoy better health than previous generations, there are some population groups that have considerably poorer health outcomes.

Aboriginal and Torres Strait Islander peoples have much higher rates of chronic disease and mortality, and greater exposure to risk factors, particularly in infancy and childhood, than other Australians.[3] Aboriginal and Torres Strait Islander communities need better understanding and control over the underlying determinants of their health and wellbeing. There is an urgent need to improve maternal, infant and child health. All prevention approaches should be holistic and incorporate connections between the whole community and the social, emotional, cultural, spiritual and physical wellbeing of individuals and families.

Greater risk of chronic disease is also associated with socio-economic disadvantage, living in a rural or remote community, mental illness, physical or mental disability, experiencing abuse or neglect as a child, discrimination and social exclusion, incarceration, and some cultural or linguistically diverse backgrounds (particularly refugees and victims of torture and trauma). Approaches that specifically target the highest risk groups must be prioritised to reduce these health inequalities. Such approaches should be supported by broader universal and environmental measures that benefit the whole population.

**Key direction 11:** Develop and implement appropriate prevention interventions for population groups with the greatest health need, particularly Aboriginal and Torres Strait Islander peoples and people who are socio-economically disadvantaged.

## Reducing risk through health care interactions

Many health care encounters can provide an opportunity for health promotion and risk reduction. Intervention by health professionals with a clear understanding of effective options for prevention can be efficient in prompting and maintaining the behavioural changes that support health and wellbeing.

The capacity of the health workforce to identify social, behavioural and biomedical risk factors, and implement evidence-based health promotion and risk reduction strategies, must be strengthened. Such reorientation of the health system toward prevention requires significant investment and further development of the evidence base for prevention.

Primary health care providers have frequent and repeated opportunities to intervene to promote health and reduce risk. These opportunities are captured by the SNAP Framework and Guide[38], which is an example of widespread education to support general practice interventions in relation to the four most common behavioural risk factors for chronic disease of smoking, nutrition, alcohol use and physical activity. It underpins initiatives such as Lifescripts, which enable general practitioners to assist patients to adopt healthier lifestyles by modifying these risky behaviours.

Recently, the impact of psychosocial factors has been recognised as a risk, as well as a common co-morbidity that affects the ability of people to self manage their health.[28] Some states and territories have added depression (SNAP-D), stress (SNAP-S) or psychosocial factors in general (SNAP-P) to the SNAP Framework.

Health promotion and risk reduction are relevant across the entire disease continuum, and must be prioritised for people who are already living with chronic disease. This can prevent complications and the development of co-morbid conditions. Primary and specialist care both have an essential role in identifying risk, and educating and supporting patients to achieve behaviour change, to reduce further exposure to the risk factors that impact on disease progression and complication.

All health services, from community pharmacy to specialist care, have a responsibility to promote health and prevent illness as appropriate to their setting and professional role. This must be undertaken in age relevant and culturally appropriate ways, and with a special emphasis on the major risk factors of smoking, poor nutrition, risky and high risk alcohol use, lack of physical activity, as well as psychosocial risk factors.

In addition, training for health professionals in the benefits and opportunities for prevention needs to be strengthened and supported.

**Key direction 12:** Support all health services to identify opportunities to promote health and reduce risk for chronic disease.

## Building the evidence base, tracking progress and monitoring performance

Monitoring and surveillance of the risk and protective factors for chronic disease, and their prevalence for different population groups over time, are essential to inform the development, implementation and evaluation of the success of prevention interventions.[29] There is a pressing need to build the evidence base for prevention interventions.

While population use of tobacco and alcohol has been monitored for some time, population trends related to diet and nutrition, physical activity, and the biomedical risk factors are less well understood and need to be a focus of future surveillance activity.

A more integrated approach to collecting relevant and comparable data would significantly improve the ability to track progress and monitor performance related to prevention. This needs to be agreed and coordinated across levels of government, and undertaken in collaboration with the services and organisations that need to collect the information.

**Key direction 13:** Improve the evidence base for prevention through monitoring and surveillance of population trends in the risk factors for chronic disease, particularly for diet and nutrition and physical activity.

# Action area: Early detection and early treatment

Not all chronic diseases are detected as early as possible in Australia. For example, it is estimated that only half of the people with Type 2 diabetes are diagnosed and receiving treatment, and chronic renal failure and some arthritis and musculoskeletal diseases are often not detected until they are in advanced stages.[30]

The benefits of early detection and early treatment can include reductions in mortality, complications and co-morbidities. Effective early treatment can improve quality of life, and may provide potential savings to the health system.

There are, however, potential risks to early detection, such as intrusive and inconvenient procedures, inaccurate or inconclusive test results, and high costs. These must be carefully balanced against the availability of effective treatments and anticipated improvements in health outcomes.

Early detection is dependent on the availability of indicators of the early signs and symptoms of disease, which is the case for some diseases but not others. It is also dependent on people's willingness and ability to access relevant health care services.

Many people are unaware of the risks for chronic disease or the early signs of disease, and so do not present to health services that offer the opportunity for early detection. This is especially true for people who have limited access to appropriate health information as a result of cultural or linguistic background, age, education or literacy level, residential location or disability.

Even when people do present, health care providers may not recognise risk factors or early signs and symptoms, or may not provide an appropriate follow up response. Furthermore, people who have been identified as being at risk or in the early stages of chronic disease may not make use of follow up health care interventions.

Increasing the uptake and effectiveness of early detection and early treatment, therefore, offers significant opportunities for reducing the future burden of chronic disease.

## CURRENT APPROACHES TO EARLY DETECTION AND EARLY TREATMENT

There are two main approaches to early detection and early treatment. One involves opportunistic screening by health professionals of risk factors and disease markers; the other involves population based screening, where there is evidence to support cost effectiveness, to detect early disease.

Population based screening is currently in place in Australia for population groups that are at increased risk for a limited number of cancers, namely breast and cervical.

BreastScreen Australia provides free mammography screening and follow up for women aged 50–69 years, which has been shown to reduce deaths from breast cancer.[31] Screening for pre-cancerous abnormalities and cancer of the cervix is provided mainly in general practice and community health settings and is encouraged to occur every two years for women aged 18–70 years. It has significantly reduced both mortality and morbidity from the disease.[32]

In 2001–2002, 57% and 61% of eligible women attended for screening for breast and cervical cancer, respectively.[31,32] Notably, participation rates for breast screening were substantially lower for Aboriginal and Torres Strait Islander women (35%) and women from non-English speaking backgrounds (47%).[31]

A national screening program for bowel cancer is currently being piloted and evaluated for people aged 55–74 years.[33]

Population based screening is implemented in Australia according to the World Health Organization's principles (see Table 4). These provide essential guidance to ensure that such screening is effective, ethical and acceptable to the population groups involved.

Opportunistic screening is used in health care encounters for people at higher risk, such as older Australians and Aboriginal and Torres Strait Islander peoples. For example, periodic health checks are available through MBS items for all Australians aged 75 years and over and residents of aged care facilities. A health check can be carried out by Aboriginal Community Controlled Health Services or general practice every year for Aboriginal and Torres Strait Islander people aged 55 years and over, and every two years for those aged 15 to 54 years.

### Table 4. World Health Organization's principles for population-based screening[34]

- the condition should be recognised by the population as an important health problem
- there should be a recognisable latent or early symptomatic stage
- the natural history of the condition, including the development from latent to declared disease, should be adequately understood
- there should be an accepted treatment for patients with recognised disease
- there should be a suitable test or examination
- the test should be acceptable to the population
- there should be an agreed policy on whom to treat as patients
- facilities for diagnosis and treatment should be available
- the cost of case finding (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole
- case finding should be a continuing process, and not a 'once and for all' project

## FUTURE DIRECTIONS FOR EARLY DETECTION AND EARLY TREATMENT

### Enhancing early intervention through primary health care, including general practice

Investing in the primary health care sector, especially general practice, to enhance its ability to detect new cases of chronic disease can significantly improve chronic disease prevention and care.[35] This approach has also been taken in the United Kingdom.[36]

General practice settings are particularly appropriate for opportunistic screening, as there are frequent opportunities to identify risk factors and other indicators that might suggest further investigation. General practice is also the main gate keeper to other parts of the health system, and is generally responsible for referral to diagnostic and specialist services, allied health professionals, as well as many community services.

There are currently, however, few incentives encouraging general practice to focus on early detection. Although there are MBS items linked to screening—for example, cervical screening by GPs and practice nurses—there are few financial incentives to encourage early disease detection.

Victoria is piloting a program whereby early detection will include opportunistic screening through general practice, and other primary health care providers identifying people at high risk and referring to general practice for screening. The program will detect people with pre-diabetes/impaired glucose tolerance or impaired fasting glucose markers for diabetes, and is based on overseas evidence demonstrating a 58% reduction in progression to diabetes.[37]

Recognising that the general practice setting is vital to early intervention, the Royal Australian College of General Practitioners has produced guidelines to advise GPs on implementing prevention, early detection and early treatment using evidence-based approaches.[38] The uptake and usefulness of these guidelines for GPs has not yet been determined. Moreover, early detection of disease should be seen as a multidisciplinary task built into all existing primary health care service provision, and not just relevant to general practice.

Early treatment often focuses on reducing risks for disease progression and complication. The same risk factors that impact on the development of chronic disease can also affect their progression and cause unnecessary complications.

Consequently, there needs to be widespread uptake of approaches such as the SNAP[+] Framework for general practice in all health care settings. Specialist care, allied health and primary health care must focus on reducing the major risk factors of smoking, poor diet and nutrition, risky and high risk alcohol use, and lack of physical activity, as well as be aware of the impact of psychosocial risk factors.

Self-management is an essential component of early treatment, as it includes the skills and resources that people need to make the behaviour changes and health decisions that can delay disease progression, reduce the risk of complications and co-morbidities, and maximise quality of life. Support for self-management should be put in place at the earliest possible opportunity. General practice and other primary health care settings are particularly well suited to encouraging early adoption of self-management principles.

**Key direction 14:** Encourage primary health care, particularly general practice, to engage in early intervention, through appropriate screening, use of approaches such as the SNAP[+] Framework to identify and address the risk factors for chronic disease, and support for self-management.

## Improving early detection for high risk population groups

Although screening is a widely recognised approach to early detection, general population based screening is unlikely to be appropriate or cost effective for the detection of all chronic diseases. Instead, focussing on risk factors and identifying high risk population groups offers opportunities for more targeted and cost effective approaches to screening.

General practice and other primary health care settings are central to improving early detection. For older Australians, GPs have the opportunity to undertake wellness checks for people as they age and move into higher risk age groups. In collaboration with older patients, periodic wellness checks should be undertaken that cover the common risk factors for chronic disease, probe for co-morbidities such as depression, and initiate any indicated diagnostic tests and follow up procedures.

Despite their higher risk, Aboriginal and Torres Strait Islander peoples are less likely to access health care opportunities for early detection, and better understanding of the barriers is urgently required. The national population screening programs for breast and cervical cancer are currently trialling approaches to encourage more Aboriginal and Torres Strait Islander women to take part in screening.

The National Guide to a Preventive Health Assessment in Aboriginal and Torres Strait Islander Peoples is an initiative of the National Aboriginal Community Controlled Health Organisations. It is intended for all health professionals delivering primary health care to the Aboriginal and Torres Strait Islander population, including GPs, Aboriginal health workers, nurses and specialists with a role in delivering primary health care. The National Guide makes specific recommendations regarding the elements of a preventive health assessment to prevent disease, detect early and unrecognised disease, and promote health in the Aboriginal and Torres Strait Islander population, while allowing for variations based on regional and local circumstances.

**Key direction 15:** Improve screening and early detection opportunities and uptake for high risk population groups, such as older Australians, Aboriginal and Torres Strait Islander peoples, and people who are socio-economically disadvantaged.

## Patient registers and disease recall systems

Early detection can be effective only if there are ways to actively follow up people who have been identified as having risk factors or early markers of disease. At present, there is no systematic organisation of diagnostic services for chronic diseases across Australia or within states and territories, and people with early indicators of disease who are at risk of disease progression can be lost to follow up.

Disease registers and recall systems are required to remind people and health service providers of the need for follow up and review. People working with these systems must be able to link information related to detection and diagnosis with follow up services and support for ongoing disease management. Such linkages are particularly pertinent to general practice, diagnostic services and specialist health care providers.

While protecting people's privacy, disease registers need to be able to link people across jurisdictions to ensure effective follow up. To track population trends relevant to chronic disease, registers also need to indicate whether people are Aboriginal or Torres Strait Islander peoples, and include other relevant demographic information.

**Key direction 16:** Promote the use of patient registers and recall systems that enable better management for people with and at high risk of chronic disease, including identifying processes to link registers between states and territories.

## Incorporating emerging evidence for early detection

Advances in medical technology for early detection, such as genetic testing for risk factors for chronic diseases, may yield prevention and treatment opportunities with substantial improvements in health outcomes. For example, a vaccination is currently under development for the human papilloma virus, which will significantly reduce the incidence of cervical cancer.[40]

In response to emerging evidence, appropriate guidelines must be provided for the early detection and treatment of chronic diseases. These should include criteria for appraising the viability, effectiveness, cost effectiveness and appropriateness of screening programs. The National Service Improvement Frameworks—for asthma; cancer; diabetes; heart, stroke and vascular disease; and osteoarthritis, rheumatoid arthritis and osteoporosis[7]—are incorporating such information.

It is anticipated that the Australian Screening Advisory Committee, established in 2004 under the auspices of the Australian Health Ministers' Advisory Council, will examine screening programs in Australia through a review and possible upgrade of current guidelines.

**Key direction 17:** Investigate emerging evidence for early detection and treatment, and implementation mechanisms including evidence-based guidelines for effective practice.

## Improving people's health knowledge to encourage early intervention

People need to be provided with appropriate information to increase their awareness of the risk factors for chronic disease and early signs and symptoms, as well as understanding the opportunities available to them for early detection and early treatment.

Relevant communication must be presented in a manner that encourages people to act—to seek more information about their health and health care and change health related behaviours. It is especially important to ensure that appropriate information effectively reaches high risk population groups, such as older Australians, Aboriginal and Torres Strait Islander peoples, and disadvantaged population groups, and that it is accessible to people with a range of literacy skills.

When early detection programs are available, there must be an effective public communication and promotional strategy consistent with the WHO guidelines (see Table 3), whereby targeted population groups are provided with culturally appropriate information about the purpose of the screening, its benefits and limitations, what is involved in terms of discomfort, cost and time, and the possible need for further tests and treatment.

**Key direction 18:** Improve the public's awareness and understanding of the risk factors for chronic disease and opportunities for early detection, particularly among high risk population groups.

# Action area: Integration and continuity of prevention and care

Integration and continuity of prevention and care are essential to ensure that people receive all the services they need in a timely manner, maximising their health outcomes and enhancing their 'patient journey'. A special challenge for the health system is building the capacity to provide continuity:

- over time and over different stages of chronic disease prevention and care
- across different conditions, including co-morbid conditions
- across different services and service providers, and
- incorporating self-management and the contribution of carers.

The key features of a health care system that can be organised to improve access, integration and continuity of care are planning, funding, service access, service collaboration, and information sharing systems that support the 'patient journey'—over time and across the continuum from prevention to end of life care.

## CURRENT APPROACHES TO INTEGRATION AND CONTINUITY OF PREVENTION AND CARE

Approaches to better integration and continuity of prevention and care are occurring at many levels of the health system, including:

- enhancing general practice
- emergency department systems flagging people with multiple hospitalisation admissions
- hospital systems supporting improved discharge procedures
- care planning and coordination across multiple health providers and multiple settings
- multidisciplinary care planning and appropriate team based approaches
- care coordination across multiple health providers in community health, general practice, private medical specialists, allied health professionals and outpatient rehabilitation programs
- information management systems and infrastructure to support integration and continuity of prevention and care across the 'patient journey'
- access and referral pathways to rehabilitation programs
- support for self-management.

Enhancing the role of general practice has been a particular focus to overcome cost, location and workforce supply issues that impact on access to comprehensive and integrated chronic disease prevention and care.

As part of Enhanced Primary Care (EPC) multidisciplinary care, patients with chronic conditions and complex needs who are being managed under multidisciplinary care by their GP have been eligible for Medicare rebates for up to five allied health services from a range of allied health providers and three dental care services per year on the MBS. The EPC care planning items have recently been replaced by broader arrangements for Chronic Disease Management (CDM).

Under the new CDM items, patients with a wide range of chronic conditions are eligible for GP Management Plans and review items. Patients with chronic conditions who have complex needs requiring multidisciplinary, team based care are also eligible for Team Care Arrangements and reviews under the new items. Patients who are being managed under multidisciplinary team care using the new items are eligible for Medicare rebates for allied health and dental care services. Patients remain eligible for these services while they are being managed under multidisciplinary team care.

Although major changes have occurred *within* many services across Australia—to improve coordinated care through better information exchange, the use of common assessments, and coordinated care planning and management—implementing changes *across* services and sectors remains a challenge. There are significant structural and organisational barriers that make planning across services and sectors, and along the 'patient journey', difficult to achieve. Integration of health services with home and community care is particularly critical for improved health outcomes and quality of life for people with chronic disease and their families and carers.

There is also considerable variation across jurisdictions and local areas in the availability of the range of services that are needed to provide quality chronic disease prevention and care.

## FUTURE DIRECTIONS FOR INTEGRATION AND CONTINUITY OF CARE

### Developing the basic requirements for an integrated system of care

There are basic requirements for building integrated systems of care. Foremost is the provision of the appropriate level and mix of services to meet population needs. To determine these, data must be available at both the population and service level for planning, monitoring and reporting of service need, service use and service effectiveness.

At present, population level data are not routinely collected and available to monitor risk factors and health status for all targeted population groups and regional areas. Service level data are inconsistent as a result of varying service boundaries and lack of agreed information collected by different services and sectors.

There must be nationally agreed data items for essential elements of care to better understand population needs across the continuum of chronic disease prevention and care, and to monitor and report service usage. Information systems need to incorporate data on health status and risk factors, quality of care, admissions and readmissions to health and residential care settings, outcomes in general practice, access to allied health care and the use of medicines.

**Key direction 19:** Improve availability of data on population health status and service use for essential elements of care through agreed data items.

The availability of better population health data would enable planning to meet population needs for varying levels of care. The UK has adopted a three tier model that recognises the different levels of care required by local populations (see Figure 1); these levels are determined by varying disease pathways, patterns of risk factors and co-morbidities:

- **Level 1:** With the right support, the vast majority (70-80%) of people with chronic disease can self manage by actively shaping their own health care.
- **Level 2:** At the next level, are people who require disease/care management, in which multidisciplinary teams provide high quality evidence-based care. This means proactive management of disease, following agreed protocols and pathways for managing specific diseases. Continuity of care is underpinned by good information

systems, such as patient registries, care planning protocols and shared electronic health records.

- **Level 3:** If people develop complications and co-morbidities their care becomes disproportionately more complex and difficult for them, or the health and social care system to manage. Care coordination becomes necessary, with a key worker actively managing and joining up care for these people.

It is important to note that health promotion and risk reduction are still relevant for people at all the levels of care for chronic disease, and must be incorporated into care plans and prioritised at all times.

**Key direction 20:** Examine measures such as risk stratification to inform planning for different levels of care for local populations.

Care planning that ensures integration and continuity of prevention and care depends upon being able to track the 'patient journey' over time, through different services and sectors, and across the course of the chronic disease and its co-morbidities. This requires a unique patient identifier, which is essential for both service planning and to improve clinical care.

Ideally, agreed health information would be available electronically to all relevant service providers, as well as to the patient. More widespread electronic access to and exchange of health information is essential.

An important first step in this direction is the use of patient held records, which are being implemented in some jurisdictions. The introduction of electronic referral, electronic decision support and electronic care planning are further steps toward the implementation of electronic health records that incorporate information collected from across the continuum, including prevention and the use of medicines.

A major initiative toward shared electronic health information is Health*Connect*, a joint initiative of Australian, State and Territory Governments , which will support enhanced clinical communication through the use of standardised electronic clinical messages, and enhanced safety and quality through a shared electronic health record. Transfer, storage and patient authorised access to clinical information will be via a secure communications network with strict privacy safeguards. Over time, Health*Connect* is expected to realise the following benefits:

- reductions in the number of medical errors
- reductions in the number of adverse drug events
- reductions in the cost of health care including a decrease in the number of unnecessary duplicate tests
- decreases in the incidence of preventable diseases
- decreases in the number of hospital re-admissions
- improved delivery of health care services
- consumer empowerment in the decision making process for their health care.

NSW is piloting an Electronic Health Record to improve the coordination of health care delivery by giving health professionals a single point of access that integrates information for an individual patient from inpatient, outpatient, emergency department, community and allied health, general practice, diagnostic services, pharmacy and dental services. It is web based and can be accessed by clinicians and patients.

As these developments occur, there is a growing need for national standards to ensure that communications between different services and sectors are secure. Electronic health information management must be supported by appropriate interpretations of privacy legislation.

**Key direction 21:** Support implementation of electronic patient information systems that support integrated service provision according to agreed national standards.

## Policy support for regional and local planning and integration

High level policies and programs impact on regional and local planning for integration in many ways. Incompatible funding and accountability structures can undermine collaborative arrangements and make multidisciplinary care more difficult. Funding and accountability based upon a time limited, single health issue or single provider basis are especially inappropriate for the management of chronic disease.

Flexible funding structures may be required to support integrated chronic disease prevention and care over time. There are some developments in this direction; such as the pooled funding that is available through the Coordinated Care Trials, the Multi Purpose Service Program, and the cashing out of MBS and PBS funds in some regions with high Aboriginal and Torres Strait Islander populations.

The scope of these and related initiatives could be broadened to enable the funding of flexible packages of coordinated care across the continuum and over time. Packages could incorporate multiple assessments and referrals, coordinated care planning, multiple care providers across primary, allied and specialist care, regular review, as well as support for self-management and ongoing risk reduction.

Funding and organisational changes need to occur at three levels to support better integrated and coordinated provision of care:

- at the patient level, to provide multidisciplinary coordinated service provision over time
- at the local/regional level to support integrated regional service networks that can coordinate health and social care across services and sectors
- at the Australian and state and territory government levels to improve integration between primary and specialist care; community, residential care and hospital settings; and between the public, private and non-government sectors.

**Key direction 22:** Develop funding and organisational structures that support multi disciplinary care, care planning, coordination and review.

## Strengthening local partnerships to provide comprehensive care

It is at the local/regional level that effective service integration operates. The population size and local area in which this takes place varies across urban, regional and rural settings, between jurisdictions, and is affected by varying Australian Government/State and Territory boundaries for different health and community services.

Primary health care networks are a way to organise planning and service delivery within a local area. These are partnerships of community based services, linked to hospital, ambulatory and community support services, which provide a framework for collaboration across services and sectors that incorporate all the elements of chronic disease prevention and care.

At present, informal networks exist extensively throughout the primary health care system in Australia, as they are recognised as fundamental to quality health care provision. Formal networks exist in Victoria, where 31 Primary Care Partnerships have been established across the state consisting of 800 primary care and community support services. Similar initiatives are being progressively introduced in other jurisdictions.

Aboriginal Community Controlled Health Services are also based on this regional approach, having a community and population health focus and being multidisciplinary and person centred.

Through the implementation of the Review of Divisions of General Practice, Divisions are being encouraged to link general practice with the broader health system supporting integration and multidisciplinary care with an initial identified area being the general practice/hospital interface.

There are significant barriers, however, to the development of effective regional primary health care networks in many areas, including workforce shortages and inequities in the distribution of the health and community care workforce, particularly in rural and remote communities.

Another barrier is inconsistent boundaries between different health organisations. For example, the boundaries of Area Health Services, Primary Care Partnerships and Divisions of General Practice do not necessarily align, which makes integration and coordination more difficult.

The development and strengthening of primary health care networks has the potential to facilitate the integration of health care services for those with chronic disease. Development of governance structures and resourcing arrangements would be required.

**Key direction 23:** Develop effective integrated primary health care networks and services.

A basic problem that inhibits better networking of services is lack of access to information about local services and service providers. This occurs because of lack of information altogether, or because the information that is available is difficult to access.

Lack of information about other services limits the decisions that can be made by service providers, as well as patients and their families and carers. Directories of local services that are current and include information related to access, cost and availability would greatly improve integrated service provision.

To improve access to information, some jurisdictions have developed approaches such as registries of GPs and call centres that give health advice and referral. Western Australia is exploring ways in which call centres can be used to assist in the management of both acute and chronic conditions. A line has been set up specifically for the residential aged care sector, in an effort to reduce the need for transfer to an acute facility and better coordinate care for this patient group. A call line for people with mental health problems has been operating for some time and, recently, development of a risk factor modification coaching service began for patients with diabetes and chronic obstructive pulmonary disease.

More widespread access to current and practical information about local health and community services is urgently needed in many local areas.

**Key direction 24:** Improve access to information about local health and community services, for service providers and communities.

## Improving access to services

Access to the range of health and community support services that people with chronic disease require is problematic in many communities because of a fundamental lack of services and workforce supply problems. Some communities are especially disadvantaged in terms of access due to remoteness or specific cultural and linguistic needs.[41,42]

The Australian Government has supported several initiatives to improve access for rural and remote areas. The More Allied Health Services program aims to improve the health of people living in rural areas by providing clinical care through allied health professionals. The Rural Specialist Support Program aims to increase specialist health care services to rural Australians by addressing some of the disincentives specialists face in delivering those services.

Many state/territory governments recognise that transport to services is a special challenge in some areas, and have Patient Assistance Transport Schemes to help rural and remote area residents access specialist services. Nevertheless, greater support is needed for people who need to travel to obtain treatment, as well as their families and carers.

Advances in information technology supporting tele-health approaches, such as multidisciplinary case conferencing over phone or video links, are important developments to improve service access in remote areas. More widespread availability of these approaches is required, as well as other innovative ways to link regional, rural and remote areas with centres of expertise for chronic disease prevention and care.

Further innovation and more collaborative solutions to access problems must be found to ensure that all people in need of chronic disease prevention and care have timely access to appropriate services, irrespective of where they live in Australia.

**Key direction 25:** Improve access for all Australians to the range of services needed for chronic disease prevention and care, particularly for Aboriginal and Torres Strait Islander peoples, rural and remote communities and other under serviced population groups.

## Ensuring quality of care

Integration and continuity of prevention and care are fundamental to providing quality care across the range of services accessed by people with chronic disease. Evidence-based protocols, guidelines and information must ensure that quality care is provided consistently across the 'patient journey'. Best practice must be identified, agreed and communicated across all the elements of care.

Better understanding and effective implementation of evidence-based best practice, particularly clinical practice, must be prioritised. This requires a strong foundation of research excellence and commitment to professional development by professional bodies.

Implementing the National Service Improvement Frameworks will be instrumental in this regard.[7] These Frameworks have been developed to identify evidence-based approaches to optimise the continuum of care and identify critical intervention points for each of the major chronic diseases in Australia, namely: asthma; cancer; diabetes; heart, stroke and vascular disease; and osteoarthritis, rheumatoid arthritis and osteoporosis.

Quality care for people with chronic disease extends beyond clinical care, and must be holistic. It needs to incorporate not only acute episodes of care, but also psychosocial assessment and support, treatment of co-morbidities, pain management, rehabilitation and, possibly, palliative care. Importantly, the link between physical and mental health must be acknowledged and both aspects of wellbeing incorporated within care planning.

Recent work in the mental health field has identified essential components of continuing care for people seriously affected by mental illness—many of which are relevant to people with other long term conditions, such as physical chronic diseases. These components include an overall orientation toward recovery through focussing on enhancing self-management, preventing further illness by addressing risk and protective factors, rehabilitation to reduce disabilities and improve quality of life, and promotion of health and mental health.[43] All of these elements must be incorporated alongside quality clinical care to provide overall quality of care.

**Key direction 26:** Progress implementation of the National Service Improvement Frameworks and other mechanisms to improve quality of care.

A particular focus must be the development of routine practices and procedures to facilitate integration across services and over time.

Primary health care, including general practice, community health, Aboriginal Controlled Community Health Services and community pharmacy, is generally understood to be the main entry point into the health system. Many initiatives have, therefore, concentrated

on building the capacity of general practice, for example through the use of MBS Chronic Disease Management items.

There are also many jurisdictional initiatives to improve the quality of chronic disease care. For example, the Northern Territory has introduced detailed chronic disease management protocols for community health centres to draw upon to better manage chronic disease. These can be integrated into single client management plans using either a computerised information system or standardised paper based system, which are available to members of the multidisciplinary team.[44]

Particularly important are transition points across the health system. The transition that has received the most focus is the transfer from hospital care to the community. Effective discharge planning that integrates care pathways into the community is imperative to reorienting practice from discrete and isolated interventions toward integrated and continuous care.

Although there must be clearly defined points of entry to, and transition within, inpatient, outpatient, ambulatory and community services, these need to be flexible and facilitate movement within the system. Explicit criteria and agreed communication procedures must establish integrated pathways for referral, transition and discharge.

Continuity of care also depends upon being able to track the 'patient journey' over services, over time and across the course of chronic disease. Methods such as a unique patient identifier or patient held record make the person the focal point for collating information related to their health care, rather than each discrete health care service. This aids communication among the potentially wide variety of service providers, as well as with the patient and their family and carers.

**Key direction 27:** Develop standard procedures for referral, pre-admission, discharge, and other transfer arrangements between services and sectors.

An important transition point where service integration can be lacking is between paediatric and adult services. Although chronic diseases are more common in older age, some, like asthma and Type 1 diabetes, are most often diagnosed in childhood.[1] For some young people, chronic disease management is a lifetime task.

There are unique challenges to providing integrated and continuous quality prevention and care for children and young people. For example, the role of families is heightened and must be prioritised in care planning. The developmental needs of the young person also must be acknowledged, including their growing ability to self manage.

**Key direction 28:** Acknowledge the unique needs of children and young people with chronic disease and their families, and provide seamless transitions between services over time.

The more complex a person's care needs, the more imperative is a coordinated and multidisciplinary approach. At all levels of care complexity, patient participation must be recognised and people involved in defining and prioritising their own health care needs. Care planning needs to be goal directed and based on providing the best quality care that is responsive to changing patient needs and optimises self-management.

The roles and responsibilities of all members of the multidisciplinary health care team need to be agreed and made explicit. For people with advanced or complex care needs, this can involve a range of general practice and other primary health care providers and specialist care providers, allied health and disability support, and a mix of public, private and non-government providers. A care coordinator is often required to ensure that the multidisciplinary care plan is carried through and reviewed in a timely manner. Importantly, acute care may frequently be required and must be effectively integrated within the overall care plan. More flexible funding and organisational arrangements may be one way to support this capacity.

**Key direction 29:** Promote multidisciplinary care planning for people with complex care needs, which incorporates patient and carer participation, self-management principles, and maximises the capacity of primary health care to coordinate care.

A specific aspect of patient participation especially relevant to chronic disease care relates to palliative care and end of life care choices. Patient and family choices for end of life care should be recognised and respected. This can be achieved through the adoption of advance care planning processes that support people to be fully informed about their illness and treatment, and facilitate discussion of their wishes for their future medical care. This planning should be undertaken while the person is mentally competent and in close consultation with the person's health care providers, family and carers.

An advance care directive is a person's instructions regarding the life prolonging medical treatment they would, and would not, want in the future. Health care providers and family are thereby informed of treatment preferences if the person becomes unable to express his/her decisions about treatment.

**Key direction 30:** Recognise end of life care choices through the development of advanced care planning methods that support people to inform others of their treatment preferences.

Chronic disease prevention and care must be provided in ways that are culturally appropriate. Socio-cultural factors strongly influence health beliefs and knowledge, and issues associated with cross cultural communication determine the capacity of people to seek and access health care. Culturally safe and appropriate practice enables people to establish effective partnerships with service providers, develop self-management practices, and negotiate their way through a complex health system.

Training of the health workforce, integration of mainstream and culturally specific services, and the development and implementation of relevant protocols and guidelines are required to achieve widespread culturally appropriate assessment, clinical practice, referral, discharge, follow up and end of life care.

For example, while Aboriginal Community Controlled Health Services provide culturally appropriate primary health care services for their communities, their links with other mainstream health and related services—especially acute and specialist services as well as with other primary health care services—need to be well developed to support integration and access to culturally safe and appropriate care and support at all times.

**Key direction 31:** Promote incorporation of cultural appropriateness and safety of assessment, referral and management protocols in clinical practice guidelines and training.

Quality chronic disease prevention and care will be achieved through monitoring and accountability mechanisms. It must be built into training competencies, accreditation procedures, and ongoing monitoring and review practices.

To enable quality improvement, timely and useful feedback should be provided to service providers and organisations regarding their performance against agreed standards for providing quality chronic disease prevention and care.

**Key direction 32:** Develop feedback and accountability procedures to ensure the provision of quality chronic disease prevention and care.

## Incorporating the quality use of medicines

An essential component of integrated care is the use of medicines. People with chronic disease often use multiple medicines, and improving their medication management between settings and over time is important for avoiding adverse drug events, improving health outcomes and achieving financial savings. The management of chronic pain, with and without medication, is of special relevance.

The *National Strategy for the Quality Use of Medicines*[45] and *National Medicines Policy*[46], while recognising that many people manage their health without using medicines, offer guidance for best practice in the role of medicines in maintaining health, preventing illness and managing disease.

To achieve continuity in medication management, a consistent and standard approach should be encouraged across all health care settings and health care providers. For example, guidelines have been developed by the Australian Pharmaceutical Advisory Council for medication management in residential aged care facilities.[47] These guidelines make recommendations regarding policies and practices in individual facilities to ensure that all areas of medication management and decision making function together as a coordinated whole using a teamwork approach.

Medication use should be reviewed regularly, and effective communication and sharing of information between specialist, acute and primary health care providers, including pharmacists, is essential. Progress toward electronic prescribing will substantially improve communication and monitoring.

Health professionals also need to be skilled in behavioural interventions, support for self-management, and other evidence-based approaches to encourage people to use medicines optimally.

**Key direction 33:** Support appropriate use of medicines to maximise health outcomes and quality of life.

Access to medicines has been identified as a critical intervention point to enhance treatment and prevent hospital admissions for Aboriginal and Torres Strait Islander peoples. Barriers are experienced by Aboriginal and Torres Strait Islander peoples living in remote areas of Australia in accessing essential medicines through the Pharmaceutical Benefits Scheme (PBS). These barriers are being addressed through provisions under section 100 of the *National Health Act 1953*. The Australian Pharmaceutical Advisory Council has endorsed a 'Position paper on improving access to PBS medications for Aboriginal people and Torres Strait Islanders' developed by the Pharmacy Guild of Australia, the National Aboriginal Community Controlled Health Organisations and the Australian Medical Association, which proposes a model for improving non-remote access to PBS medications.

**Key direction 34:** Continue to investigate and implement measures that improve access to medications for Aboriginal and Torres Strait Islander peoples.

## Fostering workforce skills

The provision of integrated and continuous chronic disease prevention and care requires a workforce with an expanded range of skills and roles. In recognition of this pressing need, the WHO has recently published a set of core competencies to prepare the health care workforce to meet the challenges posed by the increasing need for chronic disease prevention and care.[48]

The first of these competencies is *adopting a person centred approach* to chronic disease prevention and care. This requires skills in interviewing and communicating effectively, assisting people to change health related behaviours, supporting self-management, and using a proactive and forward looking approach to ongoing disease management.

The second set is about *communication skills*, which enable service providers to collaborate effectively at three levels: not only with patients and their families and carers, but also to be able to work closely with other service providers, and to join with communities to improve outcomes for people with chronic disease.

Thirdly, the workforce needs skills to ensure that the *safety and quality of patient care* is continuously improved. This entails measuring care delivery and outcomes, learning and adapting to change, and being able to translate evidence into practice.

The workforce also needs competencies in *information and communication technologies* that can assist in monitoring patients across time and settings, and in using and sharing information. This requires support in improving the skills to use patient registries and computer technologies, and communicating with partners at all levels—including primary, specialist, allied and community health care—to provide multidisciplinary care.

Finally, the workforce needs to adopt a *public health perspective* to provide population based care. This necessitates the ability to use a systems approach to plan, and to work across the continuum incorporating prevention, early detection and treatment, management and self-management, rehabilitation, and end of life care. Importantly, service providers need to be skilled in working in primary health care led systems of care.

To provide an appropriately skilled future health workforce, the required competencies must be incorporated in undergraduate and postgraduate education for all the relevant health professionals. Accreditation and registration procedures need to be updated to incorporate the new competencies.

More immediately, professional development opportunities need to be developed and provided to foster the skills of current practitioners. Immediate needs for training should focus on educating health professionals in prevention and self-management approaches, including behaviour change strategies, care planning and working in a multidisciplinary team.

A particular focus should be on building the capacity of the primary health care workforce, including general practice, to develop and lead the coordination of chronic disease prevention and care. This requires not only training primary health care providers in the core competencies needed for chronic disease prevention and care, but also in organising the provision of chronic disease prevention and care around local primary health care networks linked with specialist and acute care services.

**Key direction 35:** Include the core competencies for chronic disease prevention and care in the education, training and accreditation of the health workforce.

# Action area: Self-management

Self-management is about people being actively involved in their own health care. All people with chronic disease self manage to some extent at all times, although the ability and resources to do this vary across the lifespan and at different stages of illness. Self-management principles aim to optimise people's capacity to self manage throughout the continuum of chronic disease prevention and care.

Self-management requires the person, their family and carers, service providers and the health system working together to achieve better health outcomes. Self-management is underpinned by the person being at the centre of their own health care, and involves the skills and resources that a person needs to negotiate the health system and maximise their quality of life across the continuum of prevention and care.

Embedding the principles of self-management in the health system means that a person is supported by the system to:

- understand the nature of their illness including risk factors and co-morbidities
- have knowledge of their treatment options and be able to make informed choices regarding treatments
- actively participate in decision making with health professionals, family and carers, and other supports in terms of continuing care
- follow a treatment or care plan that has been negotiated and agreed with their health care providers, family and carers, and other supports
- monitor signs and symptoms of change in their health condition and have an action plan to respond to identified changes
- manage the impact of the disease on their physical, emotional and social life and have better mental health and wellbeing as a result
- adopt a lifestyle that reduces risks and promotes health through prevention and early intervention
- have confidence in their ability to use support services and make decisions regarding their health and quality of life.

Self-management involves all the levels of the health system—individuals, their families and carers, service providers, health organisations, the wider health system and the community. Self-management principles must be firmly embedded throughout the continuum of chronic disease prevention and care, and this requires a major cultural shift in work practices and service delivery.

## CURRENT APPROACHES TO SELF-MANAGEMENT

A wide range of approaches can be used to develop and support self-management. Self help and internet based resources, telephone counselling, mentoring and peer based support have all been applied to helping people with chronic disease develop skills of problem solving, decision making, resource use, forming partnerships with service providers, planning, and self tailoring health actions and interventions to be personally relevant.[49]

Comprehensive packaged programs to enhance self-management have also been developed and evaluated. Examples of these include the Flinders Model, which is a *clinician led* model that integrates self-management with medical management. This model emphasises the education and training of the primary health care workforce to help people with chronic

illness achieve sustainable and longer term gains. It provides tools that enable health practitioners to support their patients to self manage.

The Stanford model focuses on *peer leadership*. People with chronic disease learn from each other through sharing experiences and collective problem solving within a group setting. This program has been extensively trialled in the Sharing Health Care Initiative, and is well established in most states and territories.

The Flinders and Stanford models are synergistic and complementary, and are offered jointly in some states and territories. However, evaluations have shown that the uptake of these program approaches is not optimal: the vast majority of people offered the programs do not enrol and most of those who do are women.[50]

Other types of self-management approaches may be more attractive to men, and effective ways to adapt such approaches for Aboriginal and Torres Strait Islander peoples and people from culturally and linguistically diverse backgrounds need to be developed.

In practice, however, support for self-management is not established as an integral component of the health care system. To achieve this, a range of system supports need to be developed or enhanced, with recognition that self-management approaches are a valid and essential component of health care and adequate resourcing.

## FUTURE DIRECTIONS FOR SELF-MANAGEMENT

### Reorienting the health system to support self-management

Incorporating self-management within the health system requires a significant change in focus. Currently, funding for self-management approaches is set against an acute care system that, by virtue of its crisis response, tends to receive budgetary priority. In contrast, the longer term, collaborative and multidisciplinary planning that supports self-management encounters many systemic barriers.

Self-management should be routinely encouraged through all health care encounters. There are many opportunities in the development and progression of chronic disease to engage the person in learning and behaviour change. Health professionals need to be oriented toward this engagement and skilled at identifying and taking advantage of these opportunities.

The ability of individuals to self manage is likely to be enhanced the earlier it is started. So, support for self-management should commence at the earliest possible opportunity, and include people at risk of disease and in the early stages of chronic disease.

All the entry points to the health care system provide opportunities to provide information and referral to other services that help people develop their skills for self-management. The roles of hospitals, community pharmacies, allied health services, Aboriginal health services, community health services and residential care in supporting self-management must be encouraged.

Acute and specialist health professionals must also understand their responsibility to support self-management. These health services have a powerful impact on people's confidence and ability to self manage, often seeing people at a time when they are most vulnerable and open to change.

**Key direction 36:** Encourage health care entry points to identify opportunities to actively promote self-management.

The attitudes and knowledge of many health professionals are significant barriers to the incorporation of self-management principles in the health care system. The health system requires a culture change, whereby training and recruitment procedures, as well as routine practice, give high priority to self-management principles. Health professionals

must believe in people's ability to learn self-management skills and understand their responsibility to support this learning in evidence-based and age relevant and culturally appropriate ways.

People's adoption of self-management approaches is significantly affected by the quality of their health care relationships. Of special relevance are relationships with primary health care providers, particularly GPs. These are generally the health professionals with whom patients, and their families and carers, develop long term associations. The primary health care provider often coordinates the other health services a person with chronic disease requires over time, and so good communication is essential to optimising self-management across the disease continuum.

**Key direction 37:** Support curricula development, education and training strategies for health care providers to gain knowledge and skills to support self-management, so that self-management becomes part of routine clinical practice.

Effective self-management requires more than just providing information to patients and their families and carers. It is about having a collaboratively developed integrated care plan that recognises and prioritises patient decision making and responsibility for day to day health and related decisions and behaviours across the continuum of chronic disease prevention and care.

Care planning that supports self-management requires health care providers to work in collaboration with the patient and their family and carers to identify priorities, set goals and develop specific plans for achieving health goals. There must be ongoing follow up and collaborative problem solving, supported by feedback and reminders, for both service providers and patients.

Progress and outcomes should be measured via action plans that can be reviewed over time as to their effectiveness by the patient and their family and carers, as well as the health care providers.

**Key direction 38:** Ensure that self-management is part of clinical practice through its inclusion in multidisciplinary care planning.

## Prioritising patient participation in care planning

Essential to self-management is active patient participation in health care decisions and planning. To enable this, patients must have the capacity to engage in such decisions, by having the right, knowledge, skills, pathways and confidence to be able to do so.

Approaches such as the Expert Patient Program in the UK[51] provide models for supporting patient participation. Health services must have in place the policies, procedures and resources that enable patient participation. They must also help people to develop the skills that optimise their ability to participate in their own care.

Access to health records is an important component of patient participation. To progress this, the NSW Electronic Health Record will incorporate the patient held record 'My Health Record'. Patients will have the ability to view and add to their records online and, thereby, be more involved in their health care.

**Key direction 39:** Promote the active involvement, and research into the barriers to such involvement, of patients, and their families and carers in care planning processes.

## Improving the capacity of the peer, disability and carer support sectors

Self-management encompasses a range of daily behaviours, such as taking medicines, having an adequate diet, physical activity, hygiene, stress reduction and social support. Many of these behaviours relate to a broader set of attitudes, behaviours and skills that

can include significant lifestyle changes related to risk factors. Self-management also includes coping with changes to life roles and aspirations, and accommodating long term engagement with the health system.

Health professionals have an important role in helping people to identify and achieve appropriate behavioural and lifestyle changes. However, such significant life change requires a wider system of support, beyond that provided by the health system.

Of particular importance are the peer, disability, carer and aged care support sectors. These sectors often take the lead role in developing self-management resources, yet they tend to be poorly resourced and not well integrated with other parts of the health system.

These sectors are also essential in providing psychosocial support and rehabilitation services for people with chronic disease, as well as providing support and respite for their families and carers, and these are essential elements of self-management.

**Key direction 40:** Improve the capacity of the peer, disability, and carer support sectors to provide support for self-management.

## Tailoring self-management approaches to individual and community needs

Self-management approaches must be responsive to the unique needs of different individuals, communities and population groups, recognising that the provision of information or resources alone does not mean that people can or will access and use them.

People first need to be aware of and understand the role for self-management. They need information at a depth and level they can comprehend at that point in time. Additional help may be needed to identify barriers to behaviour change, along with support to attain the skills and resources to overcome these barriers.

A diverse range of strategies are required to optimise self-management for different population groups. The widespread preference of people to seek out alternative and complementary medicines must be acknowledged, along with the significant challenge of managing chronic pain. People must be able to adopt approaches that are personally relevant, but it is also essential that these are supported by evidence.

Ways to support self-management need to recognise the personal context of the person and their capacity to self manage. There may be age, financial, educational, literacy or cultural barriers to self-management. For example: children will require special support to develop their capacity to self manage in age appropriate ways as they mature; adolescents will tend to take up risk behaviours despite health warnings and this risk taking must be recognised; and prison populations have an entrenched culture of tobacco smoking.

For culturally and linguistically diverse populations, cultural differences in definitions of health and expectations around health care behaviours impact on self-management. Language barriers, the use of interpreters, and culturally inappropriate practice must be overcome to enable people from culturally and linguistically diverse background to develop the partnerships with health service providers that support the development of self-management skills.

Finally, the potential stigma of chronic disease, particularly in relation to some of its risk factors and co-morbidities (such as risky and high risk alcohol use and mental illness), can be powerful barriers to effective self-management.

Communities, governments and the media must work together to provide living environments that support all community members to be actively and effectively engaged in their own health management across the disease continuum and across the lifespan.

**Key direction 41:** Tailor self-management approaches to the needs of target population groups, particularly for Aboriginal and Torres Strait Islander peoples, people who are socio-economically disadvantaged and young people.

# IMPLEMENTATION ACTIONS

The National Chronic Disease Strategy does not attempt to prescribe how the nationally agreed directions should be actioned at a jurisdictional or local level. Rather, practical implementation plans will need to be developed at national, State/Territory and Australian Government, regional and local levels that identify the priorities and actions relevant to each level.

Many states and territories have already developed their own specific chronic disease strategies, often adopting the framework put forward by the National Public Health Partnership[52] and taking a 'clustered approach' to chronic disease. This approach acknowledges the common risk factors and co-morbid conditions that relate to a number of the major chronic diseases, and the value of 'joined up', or integrated action across different services, sectors and levels of planning.

Examples of leadership across jurisdictions include:

- New South Wales Chronic Disease Strategy 2006–2009 and New South Wales Chronic Disease Prevention Strategy 2003–2007
- The Integrated Health Promotion Resource Kit 2003 (Victoria)
- Queensland Strategy for Chronic Disease 2005–2015
- Chronic Disease: Prevention and Management Opportunities for South Australia, 2004
- Chronic Conditions Framework for Western Australia 2005–2010 (unpublished)
- Northern Territory Preventable Chronic Diseases Strategy
- Tasmania: Strengthening the Prevention and Management of Chronic Conditions—Policy Framework
- National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003–2013.

Concerted action and support to implement these strategies, as well as related national initiatives such as the National Service Improvement Frameworks and the National Mental Health Plan 2003–2008, are essential to achieving progress in chronic disease prevention and care.

However, there is need for increased and more coordinated action throughout Australia to meet the chronic disease health challenge in a timely and sustainable way. Endeavours at national, state/territory and local levels must work together to identify priorities, gaps and investment opportunities.

Of special significance is the need for progress through the following implementation actions.

## BUILDING WORKFORCE CAPACITY

Fundamental to implementing the NCDS is a health workforce that has the capacity and skills to meet the needs for chronic disease prevention and care now and in the future.

Health workforce shortages have been a significant and emerging challenge for the health sector for some time. Workforce shortages currently exist across most of the key health professions, and these are expected to worsen in the future without effective solutions. Shortages vary according to locality, and although pervasive, are most pronounced in rural and remote regions.

The reasons for the shortages are complex, and solutions require a multi-faceted approach. A major need is to understand how structural, regulatory and funding arrangements

(along with the activities of professional bodies) at both a state/territory and national level contribute to current shortages, and the changes that are required to enable supply to better match demand into the future.

Supplying a health workforce that can meet a local community's needs for chronic disease prevention and care requires matching workforce roles (and underlying skills/competencies) to service delivery needs. It may also require more flexible approaches that enable better use of the current workforce. For example, the capacity of general practice could be strengthened by training and funding practice nurses, community nurses and allied health professionals to undertake some of the chronic disease prevention, detection and management interventions.

The capacity of the health workforce to provide multidisciplinary and integrated care must be a prime focus. This requires consideration of funding and structural arrangements, particularly for primary health care. The development of integrated primary health care networks and services will need to be examined and considered, as well as better support for primary health care providers, in the prevention, detection and management of chronic disease.

Special attention needs to be placed on the role of care coordinators for people with complex care needs. There is also a pressing need to develop the community health sector and community support organisations. Ways to improve access to specialist care, particularly in rural and remote areas, also needed to be considered.

Training and professional development for the current workforce and education for the future workforce needs to incorporate the competencies identified by the WHO for effective chronic disease prevention and care.[48] Special emphasis needs to be placed on developing competencies in prevention and supporting self-management.

Accreditation and monitoring processes must be put in place to ensure best practice in chronic disease prevention and care. This will be enhanced through implementation of initiatives such as the National Service Improvement Frameworks and other guidelines for best practice. Better understanding of the cultural appropriateness of care needs to be built into guidelines.

Research and evaluation must also be supported to further develop the evidence base for the prevention, detection and management of chronic disease to inform the development of best practice.

## DEVELOPING STRATEGIC PARTNERSHIPS

Strategic partnerships are required at a number of levels to implement the NCDS:

- between different levels of government to identify common priorities and align directions for progress at national, state/territory and local levels
- among relevant national health reform agendas and other national strategies (such as the National Mental Health Strategy and National Public Health Partnership initiatives) to identify common priorities and align strategies to achieve common aims
- with peak bodies and national stakeholders to identify priorities and advocate for sustainable change
- with education, training, accreditation and monitoring organisations to develop competencies, ensure standards, and identify and implement best practice
- with communities, to identify and address local community needs related to chronic disease prevention and care
- among health, residential aged care and community services and organisations at local area/region/district levels to create models for formal arrangements and financial agreements to provide integrated chronic disease prevention and care

- between public, private and non-government provided health, residential aged care and community services through better incentives, flexible funding arrangements and more collaborative planning
- with patients and their families and carers, to ensure that the focus is on improved patient care and quality of life
- between health and non-health sectors, services and industries.

Importantly, the health system cannot work in isolation from other sectors, services and industries. Many of the risk and protective factors for the development, progress and complications of chronic disease occur in the settings of everyday life. It is essential that environments for work, education, recreation and community living, along with all health services, support healthy lifestyle choices and reduce the risks for chronic disease.

While the health sector needs to take leadership, advocating, engaging and partnering with other sectors is essential. The significant and sustainable change that is required to achieve the objectives of the NCDS necessitates whole-of-government and whole-of-community approaches.

## ENHANCING INVESTMENT AND FUNDING OPPORTUNITIES

Investment and funding opportunities need to be found to support and sustain the changes required to implement the NCDS.

A priority is examining flexible funding processes that will support primary health care networks and services to deliver coordinated chronic disease prevention and care. Mechanisms must be considered, including funding incentives, that support access to service arrangements that can provide person centred care that is integrated and multidisciplinary, and that incorporates self-management, health promotion and risk reduction.

Investing in broadband infrastructure and other information technology infrastructure is essential to provide the foundations for quality and effective chronic disease prevention and care. Significant investment needs to occur in improving patient records so that they support the 'patient journey' by being person centred and appropriately shared across services.

Research investment is paramount across the continuum of prevention and care. Research needs to further the evidence base for health promotion, prevention, early detection and best practice management. Research findings must be effectively disseminated and used to inform the development of practice.

## DEVELOPING INFRASTRUCTURE AND INFORMATION TECHNOLOGY SUPPORT

While there are significant advances in the development of infrastructure and information technology infrastructure, much more needs to be achieved in this area.

Agreed national data systems that can monitor population trends around the prevalence of chronic diseases, their risk factors and co-morbidities, and service use patterns must be urgently progressed. Regional breakdown of data should support local service planning and development. Data needs to be available at the regional and state/territory level for national reporting, including where possible de-identified service use by individuals over time.

Electronic service directories and regional and practice level registries that can be linked to care plans also need to be fast tracked. Information technology infrastructure must support patient registration and recall systems, implementation of unique patient identifiers, electronic referral and electronic health records.

Across all these information systems, agreed national standards are urgently required for secure data exchange and protection of privacy.

Further development and more widespread availability of tele-health approaches are needed to improve service access, particularly to specialist care, in rural and remote areas.

Continued development of protocols must ensure that chronic disease prevention and care is person centred, multidisciplinary, integrated over time and services, and incorporates self-management, health promotion and risk reduction. Agreed protocols and procedures for assessment, referral, intake/admission, discharge and transfer must support seamless transitions across health and community services over time for people of all ages, living situations, cultural backgrounds and levels of complexity of chronic disease.

# Evaluating progress of the National Chronic Disease Strategy

The National Chronic Disease Strategy will require a mechanism for determining whether its directions have been implemented, and whether these directions have been effective in achieving the objectives. An evaluation plan will need to be developed early in the NCDS to identify a set of performance measures to determine progress.

The evaluation plan should identify two types of performance measures: *process indicators* to show whether the processes have been put in place to implement each of the directions of the NCDS, and *outcome indicators* to show whether the objectives have been achieved. It will also be important to gather evidence of areas where additional actions are required to support implementation of the NCDS.

A manageable set of performance measures will need to be prioritised for collection. These must be developed with agreed definitions, standards and sources. They must be evidence-based, with appropriate reliability and validity, and robust enough to enable critical analysis. Both short term and longer term indicators will be required.

*Process indicators* related to the key directions of the NCDS will need to be developed. As the NCDS does not attempt to prescribe how the nationally agreed directions should be actioned at a jurisdictional or local level, process indicators need to be developed at the level of implementation. Process indicators must reflect the priorities and relevant actions implemented at designated levels—national, individual state and territory, regional and local.

*Outcome indicators* that show progress toward achieving the objectives of the NCDS will need to address both intermediate impacts, such as hospital readmission rates, and longer term outcomes demonstrating that:

- chronic disease is being prevented or the onset delayed for individuals and population groups
- the progression and complications of chronic disease have been reduced
- the wellbeing and quality of life of individuals living with chronic disease and their families and carers has been improved
- avoidable hospital admissions and health care procedures have been reduced
- best practice in the prevention, detection and management of chronic disease has been achieved
- the workforce has increased capacity to meet population demand for chronic disease prevention and care.

A process for collecting and collating the performance measures also must be determined. Wherever possible, the measures should be collated from available data collections to minimise the cost and burden of information collection.

A great deal of relevant information is already collected. For example, the triennial National Health Survey conducted by the Australian Bureau of Statistics collects data on:

- indicators of health status (self assessed health status, health transition, quality of life scale, K10 scale to indicate psychological distress, long term conditions focussing in particular on asthma, diabetes, cardiovascular and cancer), and injuries
- health related actions taken (visits to hospitals and day clinics, consultations with doctors, dentists and other health professionals, use of medications (for national health priority area conditions only), days away from work and other days of reduced activity)
- health risk factors (smoking, alcohol consumption, diet, exercise, body mass, sun protection, breastfeeding, immunisation)
- supplementary women's health items (breast and cervical cancer screening practices, contraceptive/protective behaviours, hormone replacement therapy, breastfeeding history)
- demographic and socio-economic characteristics.

The Australian Institute of Health and Welfare collates these and other data on the major chronic diseases and their risk factors, and has devoted a website specifically to this area.[53] A useful addition to these data, however, would be a composite measure of the overall burden of chronic disease to act as a 'ready reckoner' to plot progress.

Another relevant national initiative is the National Health Performance Framework (NHPF), which provides a set of national health performance indicators, and has been prepared biennially since 2001 for the National Health Performance Committee (NHPC).[54]

Through the NHPF, the performance of the Australian health system is reported against three tiers of indicators:

- **health status and outcomes**—health conditions, human function, life expectancy and wellbeing, deaths (How healthy are Australians? Is it the same for everyone? Where is the most opportunity for improvement?)
- **determinants of health**—environmental factors, socio-economic factors, community capacity, health behaviours, person related factors (Are the factors determining health changing for the better? Is it the same for everyone? Where and for whom are they changing for the worse)
- **health system performance**—effective, appropriate, efficient, responsive, accessible, safe, continuous, capable, sustainable (How well is the health system performing in delivering quality health actions to improve the health of all Australians? Is it the same for everyone?).

The NHPF is being used by a number of jurisdictions in their own performance reporting, and its indicators are already being collected and collated.

In summary, many of the performance measures relevant to determining progress of the NCDS are currently available; however, other measures will require additional targeted data collections. Along with determining the measures to be collected, a mechanism for collating and reporting the performance measures at the national, state/territory and local levels must be established. Importantly, reporting must be timely and in a format that can be usefully interpreted. Widespread understanding of the progress of the NCDS will facilitate further action toward achieving its overall aim—to reduce the burden of chronic disease for individuals, communities and Australia as a whole.

# Glossary

**Allied health** comprises a wide range of health professionals. Under the MAHS program it includes: Aboriginal health workers, Aboriginal mental health workers, audiologists, chiropodists, chiropractors, counsellors, dietitians/nutritionists, occupational therapists, orthoptists, orthotists/prosthetists, osteopaths, physiotherapists, podiatrists, psychologists, radiographers, Registered Nurses (asthma educator, diabetes educator, mental health, generalists, other), social worker, speech pathologist.

**Best practice** is the benchmark against which programs can be evaluated. Best practice guidelines are statements based on the careful identification and synthesis of the best available evidence in a particular field. They are intended to assist people in that field, including both practitioners and consumers, to make the best use of the available evidence.

**Burden of disease:** Loss of health, disability and premature mortality at the population level. The burden of disease is generally measured through Disability Adjusted Life Years (DALYs) for a disease or health condition.

**Carer:** A person whose life is affected by virtue of a close relationship and a caring role with a health care consumer.

**Co-morbidity:** The co-occurrence of two or more health conditions, such as heart disease with depressive disorder.

**DALYs:** Disability Adjusted Life Years are a summary statistic that combines years of healthy life lost due to disability and premature mortality.

**Demographic:** A statistic characterising human populations (or segments of human populations broken down by age or sex or income).

**Depression:** A mood disorder with prolonged feelings of being sad, hopeless, low and inadequate, with a loss of interest or pleasure in activities and often with suicidal thoughts or self blame.

**Disability:** A concept of several dimensions relating to an impairment in body structure or function, a limitation in activities (such as mobility and communication), a restriction in participation (involvement in life situations such as work, social interaction and education), and the affected person's physical and social environment.

**Enhanced Primary Care (EPC) Medicare items including Chronic Disease Management (CDM) items:** For information on the EPC items, including the CDM items, see www.health.gov.au and use the A–Z index tool to go to EPC or chronic disease management Medicare items.

**Evidence-based practice:** A process through which professionals use the best available evidence integrated with professional expertise to make decisions regarding the care of an individual. It is a concept which is now widely promoted in the medical and allied health fields and requires practitioners to seek the best evidence from a variety of sources; critically appraise that evidence; decide what outcome is to be achieved; apply that evidence in professional practice; and evaluate the outcome. Consultation with the client is implicit in the process.

**Excess deaths:** Age adjusted mortality

**Health indicator:** A key statistic that indicates an aspect of population health status, health determinants, interventions, services or outcomes. Indicators are designed to help assess progress and performance, as a guide to decision making. They may have an indirect meaning as well as a direct one—for example, Australia's overall death rate is a direct measure of mortality but is often used as a major indicator of population health.

**Health promotion** is the process of enabling people to increase control over, and to improve, their health.[12] This incorporates actions not only at the level of the individual, but also aimed at building healthy public policy, creating supportive environments, strengthening community action, developing personal skills and reorienting health services.

**Incidence:** The rate at which new cases of a disease occur in a given place at a given time.

**Jurisdiction:** An Australian State or Territory, or the Australian Government.

**Morbidity:** Any departure, subjective or objective, from a state of physiological or psychological wellbeing.

**Mental health:** The capacity of individuals within groups and the environment to interact with one another in ways that promote subjective wellbeing, optimal development and use of mental abilities (cognitive, affective and relational) and achievement of individual and collective goals consistent with justice (Australian Health Ministers 1991).

**Mental health problems:** Diminished cognitive, emotional or social abilities, but not to the extent that the criteria for a mental illness are met.

**Mental illness:** A diagnosable illness that significantly interferes with an individual's cognitive, emotional or social abilities. Also referred to as mental disorder.

**Population Health:** Aims to maintain and improve the health and wellbeing of the entire population and to reduce inequities in health status among population groups. This takes into account the entire range of factors and conditions (commonly referred to as the determinants of health) and their actions that have been shown to influence health over the life course.

**Prevalence:** The proportion of the population suffering from a disease at a given point of time (point prevalence) or during a given period (period prevalence).

**Prevention:** In population health the following definitions apply to the stages at which prevention is undertaken across the continuum of disease. **Primary prevention**—the goal of which is to limit the incidence of disease and disability in the population by measures that eliminate or reduce causes or determinants of departures from good health, control exposure to risk, and promote factors that are protective of health. **Secondary prevention**—aims to reduce progression of the disease though early detection, usually by screening at an asymptomatic stage, and early intervention. **Tertiary prevention**—the goal of which is to improve function and includes minimisation of the impact of established disease, and prevention of complications and the establishment of chronic conditions through effective management and rehabilitation.[55]

**Primary health care** is health care that seeks to extend the first level of the health system from sick care to the development of health. It seeks to protect and promote the health of defined communities and to address individual and population health problems at an early stage. Primary health care services involve continuity of care, health promotion and education, integration of prevention with sick care, a concern for population as well as individual health, community involvement and the use of appropriate technology. It incorporates personal care with health promotion, the prevention of illness and community development. Its philosophy includes the interconnecting principles of equity, access, empowerment, community self determination, and intersectoral collaboration. It encompasses an understanding of the social, economic, cultural and political determinants of health.

**Public health** is one of the efforts organised by society to protect, promote and restore the people's health. It is the combination of sciences, skills and beliefs that is directed to the maintenance and improvement of the health of all the people through collective or social actions. The programs, services and institutions involved emphasise the prevention of disease and the health needs of the population as a whole. Public health activities change with changing technology and social values, but the goals remain the same: to reduce the amount of disease, premature death, and disease produced discomfort and disability in the population. Public health is thus a social institution, a discipline and a practice. **Population health** describes the condition, whereas **public health** is the practices, procedures, institutions, and disciplines required to achieve the desired state of population health. Public health in Australia seeks to improve health and wellbeing by focusing on whole populations. It aims to reduce disparities in health status between social groups and to influence the underlying social, economic, physical and biological determinants of health. Public health practice informs and empowers individuals and communities, creating healthy environments through the use of evidence informed strategies, best practice and quality improvement approaches and effective governance and accountability mechanisms. The National Public Health Partnership has a leadership role in this area in Australia.

**Specialist care** is health care provided by a health practitioner who is registered as a specialist under state or territory law; or holds a fellowship of a recognised specialist college; or is considered eligible for recognition as a specialist or consultant physician by a specialist recognition advisory committee.

**Socio-economic status** is a relative position in the community as determined by occupation, income and level of education.

# Appendix

## NATIONAL HEALTH PRIORITY ACTION COUNCIL (AS AT SEPTEMBER 2005)

Ms Karen Carey-Hazell, Consumers' Health Forum

Mrs Jenny Cleary, Department of Health and Community Services, Northern Territory

Dr John Carnie, Department of Human Services, Victoria

Dr Sophie Couzos, National Aboriginal Community Controlled Health Organisation

Dr David Filby, Department of Health, South Australia

Professor John Horvath (Chair), Department of Health and Ageing, Australian Government

Ms Margaret Lyons (previously Mr Bob Wells), Department of Health and Ageing, Australian Government

Ms Carole Owen, Department of Health and Human Services, Tasmania

Ms Kym Scanlon, NSW Health, New South Wales

Associate Professor Michael Sparks (previously Dr Paul Dugdale), ACT Health, Australian Capital Territory

Mr Andrew Stuart, Department of Health and Ageing, Australian Government (Affiliate member National Public Health Partnership)

Dr Simon Towler (previously Ms Margaret Stevens), Department of Health, Western Australia

Ms Anne Turner, Queensland Health, Queensland

# NATIONAL CHRONIC DISEASE STRATEGY REFERENCE GROUP (AS AT SEPTEMBER 2005)

Professor John Chalmers, National Heart, Stroke and Vascular Health Strategies Group

Professor Don Chisholm and Associate Professor Peter Colman, National Diabetes Strategies Group

Professor Robert Burton and Professor Alan Coates, Cancer Strategies Group

Professor John Eisman, National Arthritis and Musculoskeletal Conditions Advisory Group

Dr Martin Gallagher (Chair), Department of Health and Ageing, Australian Government

Professor Ian Hickie, National Health Priority Action Council Advisory Group on Mental Health

Dr Tony Hobbs, Australian Divisions of General Practice

Dr Christine Jenkins, National Asthma Reference Group

Dr Tim Mathew, Kidney Health Australia

## Jurisdictional clinical nominees

Ms Carolyn Bailey, New South Wales

Ms Annette Barrett, Tasmania

Dr Scott Blackwell, Western Australia

Ms Marie Gill, Victoria

Ms Deborah Law, South Australia

Ms Anna Levi (previously Patricia (Kutchi) Nona), Queensland

Dr Michael Lowe, Northern Territory

## Additional advice from:

Dr Indrani Ganguly, Standing Committee on Aboriginal and Torres Strait Islander Health

Ms Jackie Steele, National Public Health Partnership

# NATIONAL CHRONIC DISEASE STRATEGY WORKING GROUP (AS AT SEPTEMBER 2005)

Ms Karen Carey-Hazell (previously Ms Hilda Bastion), Consumers' Health Forum

Dr Christine Connors, Department of Health and Community Services, Northern Territory

Ms Amanda Croker, Queensland Health, Queensland

Dr Martin Gallagher, Department of Health and Ageing, Australian Government

Ms Susan Leivers, Department of Health, Western Australia

Ms Karen McIntyre, Department of Human Services, Victoria

Ms Carole Owen, Department of Health and Human Services, Tasmania

Ms Kym Scanlon (Chair), NSW Health, New South Wales

Ms Velda Schubert (for Fran Barry), ACT Health, Australian Capital Territory

Mr Bruce Whitby, Department of Health, South Australia

Ms Jan Bennett, Department of Health and Ageing, Australian Government

***Secretariat***

Ms Sue Jones (previously Ms Susan Garner) Department of Health and Ageing, Australian Government

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