

ADDRESSING THE SOCIETAL DETERMINANTS OF HEALTH: INVESTING IN A SUSTAINABLE HEALTH SYSTEM

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1. INTRODUCTION

There have been sustained and dramatic improvements in health over the past twenty years and today the people of New South Wales are amongst the healthiest in the world (Public Health Division 2005). But these gains have only partly resulted from advances in medical care – changes in life style, improvements in living and working conditions, levels of education, political stability and economic prosperity have played major roles in these advances. *Roles that are so fundamental to our health and well-being that they are often invisible.*

Determining the relative importance of health services; biological, psychological and behavioural health risk factors; community level support; and the wider social and structural influences that impact on health is difficult (Turrell et al. 1999). However there is increasing evidence that the strongest influences on health (rather than the management of disease) lie outside the health system (Wilkinson & Marmot 2003). It is also clear that access to, or increased investment in health care by itself does not result in better health outcomes for the population nor necessarily reduce pressure on health services (OECD 2004).

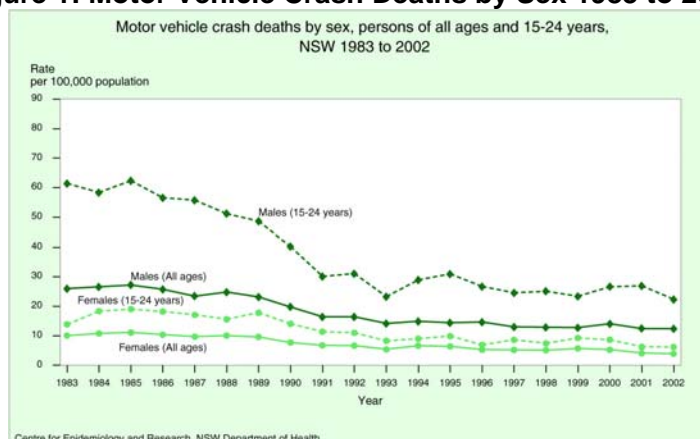
The great public health advances of the nineteenth century that saw dramatic improvements in health related to water supply, sanitation, living conditions, structural & legislative changes, public education and advances in medical care remain relevant today. If we take motor vehicle deaths as an example, over the past twenty years there has been a halving of the rate of deaths. (Fig 1) (Public Health Division 2005). These gains have been most dramatic in young men. This represents the work of many government, non-government, private sector and community groups and a substantial financial investment by groups outside the health system.

Interventions to achieve this decline in deaths have been based on an understanding that no one sector or organisation could achieve as much alone as they could by working together in undertaking interventions such as:

- Changes in road design (dual carriage ways and roundabouts);
- Improved safety features in cars (airbags);
- Active enforcement by police (RBT, speeding);
- Mass media campaigns (Designated drivers);
- Improved retrieval and medical care; and
- Driver education.

(NHMRC 1997)

Figure 1: Motor Vehicle Crash Deaths by Sex 1983 to 2002



Source: (Public Health Division 2005)

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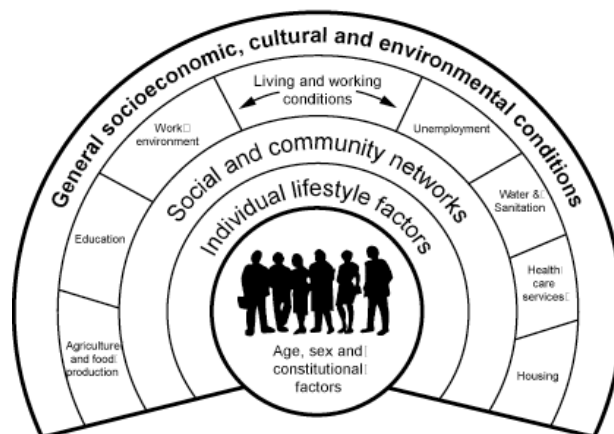
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The purpose of this paper is to identify ways in which NSW Health can build on its existing strengths and maximise its efforts to improve population health through closer collaboration with other government departments, non-government organisations and community groups, the private sector and the community in addressing the societal determinants of health. This paper focuses on interventions at the population level but it is important that NSW Health also recognises the importance of the societal determinants of health in the development and delivery of clinical services.

2. WHAT ARE THE SOCIETAL DETERMINANTS OF HEALTH?

The societal determinants of health are factors that have been shown to have strong relationships with health over time and are related to the ways in which society is organised. The way in which the term is generally used includes aspects of the social, economic, political, built and natural environments (Figure 2). Social and economic determinants include family structure, gender, income, education, employment, occupational status and ethnicity (Draper et al. 2004, Mathers et al. 1999). The built and natural environment determinants include the structure of our towns and neighbourhoods, transport systems, services and infrastructure as well as the quality of air, water and soil (Berkman & Glass 2000, Macintyre & Ellaway 2000). The political environment is often given less attention and includes trust in government, governance and stability of political systems and the distribution of power in society.

Figure 2: A Model of the Main Determinants of Health



Source: ((Whitehead 1995) p. 23)

3. HOW DO THE SOCIAL DETERMINANTS AFFECT HEALTH?

These societal determinants do not necessarily affect health directly but can act as powerful pathways through which underlying hereditary, existing illnesses or health risks can be influenced. They can have both positive and negative impacts. The societal determinants of health are not absolute determinants of health at an individual level – they are influences. Not everyone who is exposed to TB bacillus gets tuberculosis; not everyone who smokes gets lung cancer; not every poor person dies young or even smokes.

However the local, national and international data demonstrate unequivocally that at a population level these societal determinants of health:

- Impact across the whole population: that is we are all affected by the quality of the natural, built, social, economic and political environments in which we live; and

- Result in patterns of health inequality within and between groups in society (Public Health Division 2005; AIHW. Australia's Health 2004, Marmot 2005).

4. WHY ARE THE SOCIETAL DETERMINANTS IMPORTANT TO A SUSTAINABLE HEALTH SYSTEM?

There are three reasons why it is important that NSW Health focus on ways in which it can more effectively address the societal determinants of health are outlined in sections 4.1-4.3.

4.1 Societal determinants affect the extent to which people have access to and can benefit from health services

There are many ways in which the societal determinants of health impact on the delivery of health services. For example, these can be thought of as impacting on:

- Access:* lack of services and trained staff, hours of opening, proximity to transport, languages spoken, disabled access.
- Affordability:* co-payments, payment at the time of service, hidden costs such as prescriptions or appliances.
- Acceptability:* respect for differing cultural values and beliefs, the organisation of hospital wards in relation to privacy, staff from similar backgrounds.
- Appropriateness:* recognition that need adequate levels of resources at home to follow treatment (such as access to fresh foods or refrigeration) and cultural beliefs about use of medication.

As Box 1 illustrates how these factors can lead to poor health outcomes and also inefficient use of health resources.

Box 1: The Burden of Asthma

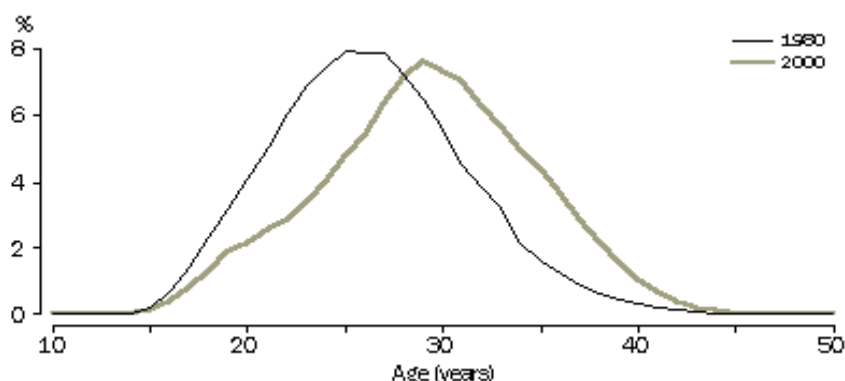
The burden of asthma was broad, affecting social life, personal relationships, employment and finances. The cost of asthma medication was an issue for nearly two-thirds of participants. Individuals performed their own "cost-benefit analysis" for medication use, weighing up expense, perceived side effects and potential benefits. As a consequence, several participants chose to alter their medication dose, or not to take prescribed medications. For some participants, asthma directly contributed to diminished employment opportunities. To achieve a therapeutic partnership, doctors need to be aware of the substantial social, personal and financial burden of asthma for their patients. They should also recognise that patients' perceptions of treatment cost may compromise treatment adherence.

Source: (Goeman et al. 2002)

4.2 There is increased evidence that changes in the underlying social, political, economic and cultural systems in our society can have significant positive or negative impact on health for all people in NSW.

Perhaps one of the clearest examples of the ways in which changes in the social fabric impact on health and the use of health services is reflected in changing fertility patterns. As Figure 3 illustrates over the past twenty years the mean age of women having birth has shifted as a result of changes in age at which people are marrying, decisions to delay having children and changes in the expectations of women in society. For the health system this impacts on the level of demand for fertility treatments, rates of caesareans and potential complications. (ABS 2004 a)

Figure 3: Age Distribution of Women Having Babies, 1980 and 2000



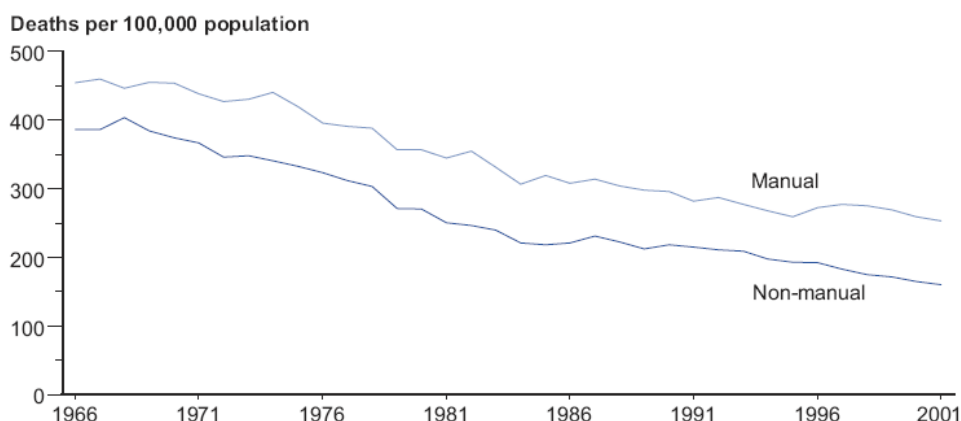
Source: (ABS 2004a)

4.3 There are substantial and persistent inequalities in health in NSW that are closely linked to the social determinants of health.

No matter what measure of health outcome is used there are persistent relationships with social position (whether position is measured using education, employment, place of residence, income, ethnicity or family structure). These differences can remain substantial despite overall improvements in health across the population (NSW Department of Health 2004). For example while there has been a dramatic decline in the mortality rates in men from manual and non-manual occupations over the past forty years the gap in life expectancy between them remains (AIHW 2005)

It has been estimated that if the death rate among males employed in blue-collar jobs was the same as their counterparts in managerial and professional occupations 5,642 deaths could have been avoided in 1998-200 in Australia (Draper G et al. 2004).

Figure 4. Age-Standardised Mortality Rates Among Males Aged 20-59 years, 1966-2001



Source: (AIHW 2005)

The most significant health inequality to be addressed in NSW is the twenty year gap in life expectancy between Aboriginal and non-Aboriginal peoples in NSW.

5. WHAT ARE WE TRYING TO ACHIEVE?

Understanding the fundamental impact that society has on health challenges us to think about the best ways to invest resources and effort to improve health:

- Q 1: Increased investment in health services by government comes at a cost to other priorities - such as smaller classes in schools, cheaper public transport or greater investment in public housing. How do we balance investment between managing illness and promoting health?
- Q 2: The NSW Health system has always had a central concern about equity in access to health services – but does this extend to promoting equity in access to opportunities for health such as food supplies, employment, decent housing or safe neighbourhoods?

Any future planning by NSW Health will need to grapple with these issues. Are there different ways of thinking about the role of the NSW Health system that will see increased investment in prevention and support for other sectors in more effectively addressing the societal determinants of health.

6. WHAT ARE THE POINTS OF INTERVENTION?

There have been a number of reviews of effective intervention to address the societal determinants of health that identify points of intervention (Arblaster L et al. 1996, Gunning-Schepers & Gepkens 1996, National Advisory Committee on Health and Disability (National Health Committee) 1998, Oldenburg et al. 2000, Turrell et al. 1999, Whitehead 1995):

- These points need to be multilevel with a focus on:
 - strengthening individuals;
 - strengthening communities;
 - improving access to essential facilities and services;
 - encouraging macroeconomic and cultural change (Whitehead 1995).
- Attention needs to be given to:
 - protecting the health of the population,
 - reducing the exposure of vulnerable groups to potentially damaging social conditions and
 - supporting those groups with poor health (Wilkinson & Marmot 2003; WHO 2005).

What becomes apparent from these reviews is that the most sustained and far reaching actions are those that prevent the problems from occurring. For example, preventing youth unemployment not only has health benefits but also social and economic benefits to society.

Table 1 looks at some possible points of intervention to reduce the impact that youth unemployment has on health. In reality the points of intervention are more complex, for example providing employment opportunities also includes transport infrastructure, literacy and availability of raw materials but this example helps to illustrate that the role of the health system often only becomes visible when people have established health problems or risks.

Table 1: A Multi-Level Approach to Addressing Health and Employment

	Prevent Youth Unemployment	Reduce risk for vulnerable groups	Provide support for unemployed youth
Government level	Economic policies to promote full employment	Programs to support economic development in rural and regional areas	Financial support for unemployed youth
Community level	Communities actively seeking diverse employment base	Support for local businesses in disadvantaged areas to take on trainees	Training programs that lead to jobs
Individual level	Literacy and skill development	Programs to increase school retention for marginalised groups	Access to appropriate health & welfare services

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7. WHAT ARE THE FUTURE CHALLENGES?

Australian society is changing rapidly. NSW Health needs to develop the capacity to anticipate and respond to change in ways that maximise the prevention of health problems. In this section we look at two future challenges to be faced by the NSW Health system over the next twenty years and highlight the gains that can be made in each of these areas by the health system working with other sectors to address these problems.

7.1 Prevention and management of chronic disease

It is predicted that the contribution of major chronic diseases to mortality and burden of disease will increase by 13-20% by 2020. (WHO 2002) Prevention of these problems developing will not only improve health but also represent significant savings to government and the health system.

The potential power to impact on prevention through collaboration beyond the health sector is detailed below. It is clear that if the NSW health system does not work with other sectors the range of strategies that it can employ and the potential health gains are much more limited.

Background: Treatment costs for people with Diabetes, CVD, Cancers and Musculoskeletal conditions will arise from \$3.3 billion in 2000/01 to \$6.1 billion by 2020/21.(Vos et al In press)	
The issue: What action can be taken to reduce levels of behavioural risk factors in the community, using physical activity as an example?	
The health system going solo	The health system as part of a wider system
<ul style="list-style-type: none"> • Greater involvement of GPs in risk factor prevention (Exercise Prescriptions) • Hospital based interventions for people admitted with disease • Extend SNAP health promotion programs to Community Health Services • Run mass media programs • Improve surveillance systems • Develop programs that work well with marginalised and disadvantaged groups. 	<p>As well as health system interventions:</p> <ul style="list-style-type: none"> • Schools to increase opportunities for planned and incidental physical activity • Improve perceptions of safety in areas of high crime • Incentives for shifts to public transport provision and use • Plan new developments for walkability – near bus stops, shops, good lighting, safe environments • Access to affordable exercise programs by older people, mothers with young children and so on

7.2 Changes to cities and rural areas

As well as changes to the age structure of the NSW population there will also be changes to where we are living. In NSW over the next twenty years there will be dramatic increases in ribbon development along the coast, further decline in small rural communities as well as substantial increases in population in the Sydney basin. (DIPNR 2004)

A proactive approach to these changes by NSW Health is required to ensure:

- access to health services (General Practice, Community Health as well as Hospitals); and
- that the design of new settlements and redevelopments will actively support health.

Apart from the more traditional public health concerns to ensure access to safe water and air quality, open spaces and waste disposal there is increased evidence that the ways in which human settlements are designed can positively or negatively impact on health. Access to work, affordable housing, and well developed infrastructure such as transport, human services (such as schools, health services, community organisations) have direct and indirect impacts on health (Wilkinson & Marmot).

Background: Rates of obesity are rising in NSW. This is thought in part to be related in part to decreased levels of physical activity. Obesity has been estimated to cost the Australian health system between \$680-1239 million per year(NSW Centre for Public Health Nutrition).

The issue: In the next 20 years there will be an extra 300,000 people living in the western parts of Sydney – how can these new developments promote physical activity?

The health system going solo	The health system as part of a wider system
<ul style="list-style-type: none"> • Health promotion programs at individual and community levels • Advocate with other departments • Provide guidance • Undertake Health Impact Assessments of major health system proposals. 	<p>As well as health system interventions:</p> <ul style="list-style-type: none"> • Train system built as part of basic infrastructure • Provision of public transport 7 days a week • Houses designed to be close to bus stops • Design of safe open spaces eg. appropriate lighting and walkways • Footpaths wide and usable for people with small children and disabilities • Provision of community centres and sporting facilities in infrastructure funding • Clubs sporting competitions for school children and young people • Increase opportunities for exercise in school design

It is clear that the power of intervention expands dramatically when others are involved and are fully engaged in determining how this can best be done.

8. WHAT SHOULD BE THE FOCUS OF ACTION?

There are four levels at which NSW Health can make significant contributions:

8.1 Development of Healthy Public Policy

NSW Health needs to advocate for policies that will have positive impacts on health and identify ways in which potentially damaging impacts can be avoided. Two recent examples of this approach that should be built on in a more systematic way are the Drug and Alcohol

Summit and the Obesity Summit. NSW Health also has an important role in acting as a technical advisor to other parts of government. For example by advising on how mental health services can be improved to reduce the number of people who are incarcerated due to undiagnosed or inappropriately managed mental illness.

Specific actions that could be undertaken include:

- Support the publication of a report by the Cabinet Office, similar to the Chief Health Officer's report, that details trends in the major determinants of social well-being in NSW. This will enable a better shared understanding on issues that need to be addressed and areas where progress is being made. In developing the Measurement of Progress work the Australian Bureau of Statistics has already explored many of the central issues that need to be considered in determining the scope and level of detail in such a report and this could be built on in a NSW context. (ABS, 2002)
- Request Treasury to undertake a Cross-Cutting Spending Review where each government department is required to report on the ways in which their activities are contributing to population health, especially the prevention of health problems and reducing health inequality. A similar review was undertaken by the UK Treasury and has provided valuable insights into ways the underlying societal determinants of health can be addressed (HM Treasury 2002).
- Increased focus by NSW Health in working with other sectors on a small number of common issues where there is evidence that such collaboration can bring about positive change. Three initial areas would be:
 - Investment in the early years of life (McCain & Mustard 1999);
 - Plans for community formation and redevelopment within the Sydney Basin (Johnson 2004);
 - Chronic disease prevention through increased levels of physical activity (National Chronic Disease Prevention Alliance 2004)
- Health Impact Assessments to be undertaken on all major policies and programs undertaken or approved by the NSW government as a way on maximising any potential gains and minimising any potential problems. These HIAs should have a specific focus on the distribution of these potential impacts across population groups.

8.2 Building the skills of individuals and communities

The active engagement of all sections of the community to understand the importance of investing in the conditions that will create and support health is essential, especially if we are to deal with the potential increased demands on health services. While NSW Health may be dealing with those issues that have most direct relevance to health any efforts to build capacity of individuals and communities are likely to have both direct and indirect benefits to health.

At community level:

- Continued support and development of participation structures within the NSW Health system, including active engagement of Non-government and Community Organisations. Without this engagement it will be impossible to introduce the changes that will be required to develop a sustainable health system.
- Invest in increasing the capacity of the NSW Health workforce to work effectively in marginalised communities. This will be important if we are not to continue to invest in a system that is most effective in working with those parts of the community with the highest burden of disease.

At individual level:

- Greater focus on engaging health consumers and their carers in the prevention and management of health problems, while recognising that as well as education or information skill development and access to resources is required.

8.3 Re-orientation and ongoing development of health services

One of the societal determinants of health is access to high quality health services. These issues are taken up in detail in the Issues Paper on equity but include the distribution of health services and staff and the problems in providing effective services to disadvantaged groups and populations.

In addition there is evidence that prevention programs work and if NSW Health is serious about managing demand on health services in the future the level of investment in population health services needs to be substantially increased. This needs to be done in ways that do not widen health inequalities.

Specific action that could be taken includes:

- Distribution of services and the health workforce based on need so that those areas with the highest burden of disease are those areas that have the greatest investment of health resources.
- Ongoing investment in services for hard to reach groups so that all groups benefit equally from interventions
- Develop a better information base on which to act, not only in descriptions of the impacts of societal determinants on health but also effective intervention.
- Greater investment in primary prevention of health problems that would see the current levels of investment double over the next 3-5 years. Less than this will not provide enough “fire power” to make the necessary difference (King & Whitecross 1999).

8.4 Focused investment to improve Aboriginal Health in NSW

Any future health plans for NSW Health must include a focused and concerted effort to improve the health of Aboriginal and Torres Strait Islander peoples within the state. This should not be seen as the responsibility of the Partnership between NSW Health and the Aboriginal Health and Medical Research Council (AHMRC) – it is everyone’s responsibility – it is the role of the Partnership to lead us in this endeavour. The twenty year gap in life expectancy between Indigenous and non-Indigenous people in NSW needs to be seen as unacceptable and an issue requiring urgent attention.

Specific action that could be taken includes:

- Establishment of a Ministerial Taskforce to identify current levels of recurrent investment in Aboriginal health, the relationship to health need and recommend on future investments.
- A comprehensive Health Impact Assessment be undertaken in partnership with key Aboriginal and Torres Strait Islander stakeholders on the recurrent investments across the NSW government departments, agencies and funding programs in improving Indigenous health in NSW.

9. WHAT ARE THE RISKS OF NOT ACTING?

The major risk is that NSW Health will fail to invest sufficient resources in taking a “whole of society” approach to improving health. The potential improvements in health and changes in demand for health services will not be optimally realised.

Measuring success of the NSW health system in terms of length of stay in hospital, waiting lists and adverse events rather than on levels of population health will mean that we are trapped with incentives that have not worked well in the past. A shift from throughput to outcomes as a measure of success will inevitably lead to more focus on addressing the societal determinants of health.

Working with other parts of government, the private and community sectors and the community to strengthen those aspects of society that promote health and reducing those aspects that are detrimental offers a powerful tool for improving health in NSW.

10. RECOMMENDATIONS

- 10.1 The Premier's Department prepare a bi-annual report similar to the Chief Health Officer's report that details the population, social, economic trends in the state as a basis for dialogue and action between government, the private sector and the community.
- 10.2 Treasury be requested to undertake a cross spending review to identify ways in which government is investing in health and reducing health inequality.
- 10.3 In order to gain experience and credibility in working across government to address common problems priority given to high level of investment in 3-5 major areas where multi sectoral action is clearly required. Possible areas include: investment in the early of life, prevention of chronic disease through increased population levels of physical activity; and urban development.
- 10.4 In order to minimise the potential negative impacts and strengthen potentially positive impacts, Health Impact Assessments be undertaken on all major policies or programs undertaken or approved by the NSW government with a focus on the distribution of these potential impacts across population groups.
- 10.5 A systematic approach be developed for engaging the community in understanding the challenges that need to be faced in developing a sustainable health system.
- 10.6 Over the next 3 years there should be a doubling on investment in prevention programs with a specific focus on reducing health inequalities.
- 10.8 A taskforce responsible to the Premier be established that will review current levels of recurrent investment in Aboriginal health and social development and identify actions within NSW Health and the whole of government that will be needed in the short and longer term to improve health.

11. QUESTIONS

- 11.1 Do you agree that the four focal areas of action should be:
 - i) Development of Health Public Policy across NSW government;
 - ii) Building the skills of individuals and communities,
 - iii) Re-orientation and ongoing development of health services;
 - iv) Focused investment to improve Aboriginal and Torres Strait Islander health.
- 11.2 What actions does NSW Health need to take in the next 3-5 years to increase NSW Health capacity to undertake these actions.
- 11.3 What shifts in thinking and funding will be required if these roles are to be effectively undertaken?

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