

# Women's Health Outcomes

## Framework

**Women's Health Outcomes Framework**

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# Summary

## Executive summary

The *Women's Health Outcomes Framework* is the first stage in the effective and practical application of an outcomes approach to women's health in NSW.

It reviews the scope of women's health priorities in NSW and proposes a framework for the ongoing development of indicators to measure and monitor the effectiveness of interventions in women's health, the resulting outcomes, as well as the sensitivity of services to the needs of women.

With the release of the *Strategic Framework to Advance the Health of Women* in 2000, NSW Health led the way for the health system generally, and the *Women's Health Outcomes Framework* in particular, in setting new policy directions to ensure current and future strategies to improve women's health are measured and monitored. Both documents draw on a social model of health approach and emphasise a population focus.

The *Women's Health Outcomes Framework* puts forward a step by step guide to assist Area Health Services and non-government organisations to implement a health outcomes approach. This will include developing sustainable partnerships and interventions to address key health determinants, with a particular focus on achieving health gains for those women who are disadvantaged or living in areas of disadvantage and have the poorest health outcomes.

Five key health outcome issues relating to mental health, domestic violence, physical activity, smoking and pregnancy have been chosen to demonstrate the health outcomes approach. Although not exhaustive, these match NSW health priorities, address emerging health issues for women and extend the scope of women's health priorities under the 'National Women's Health Policy'.

A review of key social determinants is provided for each issue and includes:

- reduction in the prevalence of depression in women
- reduction in the prevalence of domestic violence
- increase levels of physical activity in women
- reduction in the prevalence of smoking in women
- improve maternal and infant health.

Two case studies are included to demonstrate a practical application of the framework.

The NSW Government Action Plan for Health (GAP), which arose out of recommendations of the NSW Health Council, highlighted the need to implement priority health care programs through population based prevention programs. The health issues relating to smoking, obesity and physical activity in the *Women's Health Outcomes Framework* are clearly linked to the three GAP priorities that address chronic diseases such as cardiovascular disease, cancer and respiratory disease (NSW Health Department 2000a).

The *Women's Health Outcomes Framework* will contribute to capacity building within NSW Health and the community in order to address equity, improve health outcomes and ensure resources are directed where they are most needed.

**Section 1** outlines the background to the *Women's Health Outcomes Framework*.

**Section 2** describes its aim and objectives and provides a rationale for adoption of the *Framework*.

**Section 3** describes the social determinants of health.

**Section 4** presents a step by step approach to implementing an outcomes approach by

identifying determinants and developing and monitoring interventions in women's health.

**Section 5** reviews the evidence for five key women's health issues.

**Section 6** applies the *Women's Health Outcomes Framework* in two case studies.

**Section 7** provides a summary and looks at the need for ongoing further development of tools for measuring and monitoring women's health gain.

Extra data is provided in Appendix A on the context of women's lives – roles and responsibilities, income, where they live and how. Appendix B defines terms and concepts referred to in the *Women's Health Outcomes Framework*.

# Section I

## Background

### Health outcomes approach

The interest in health outcomes has grown out of a worldwide focus on assessing the effectiveness of health care interventions and measuring their outcomes. In part, this interest in Australia began with evidence that despite a rapid growth in health expenditure, use of health services, and the availability of pharmaceutical drugs from the 1940s, the life expectancy for women from 1961 to 1970 remained the same and actually declined a little in men (Harvey 1995).

The objective of a health outcomes approach is to ensure that the structures and processes of health care and prevention have a positive impact on people's health (NSW Health 1995). It therefore goes beyond the traditional measuring of the number, type, length and cost of interactions with patients.

In 1997, NSW Health published *Health Outcomes Performance Indicators (HOPIs): Monitoring Health Improvement*. This document acknowledged the shift in emphasis in health care service from how much we do to what are the benefits of what we do and focused on the need to develop indicators in a health outcomes framework (NSW Health 1998).

*[the focus on benefits]...might relate to health status modification, disease prevention, population groups, equity and access, and service quality. At every level the need for robust indicators has become increasingly apparent. (p.2)*

It recognised that performance indicator development is an evolving process that will lead, in time, to the development of health outcome performance indicators which will provide comprehensive measurement of health outcomes and health improvement.

Numerous studies over the past two decades in particular have highlighted the determinants of health as lying, in the main, outside the scope of traditional health services and requiring action that goes beyond the health sector alone (Black 1980, WHO 1986, 1998).

In their review of Australian research relating to socioeconomic health inequalities, Turrell et al. (1999) found that:

*Taken as a whole, the evidence on SES and health in Australia is unequivocal: those who occupy positions at lower levels of the socioeconomic hierarchy fare significantly worse in terms of their health...Moreover, socioeconomic differences in health are evident for both females and males at every stage of the life-course (birth, infancy, childhood and adolescence, and adulthood) and the relationship exists irrespective of how SES and health are measured. (p. xi)*

The emergence of the health outcomes approach signifies a commitment to respond to this evidence. Harvey (1995) argues:

*If improvement in health, rather than only the treatment of existing disease, is the principal objective of health care policy, a wide view needs to be taken of possible strategies for improving health. (p. 28)*

Furthermore, there is a need to:

*design information systems that will contribute to finding out what interventions work and whether interventions are effectively provided [and] will provide information about the equity with which health resources are allocated (p. 28).*

### Women's health policy

The *National Women's Health Policy* (NWHP) was the result of over 20 years of organised activity by women to achieve health system responses to meet women's needs and concerns for health care (Commonwealth Department of Community Services and Health 1989).

Both the NWHP and the Programs linked to it recognised the impact of social determinants on health by adopting a social model of health. They endorsed a strong equity focus and prioritised policy initiatives for women with greatest need.

Key action areas centred on:

- improving health services for women
- training health care staff
- providing (health) information to women
- strengthening the participation of women in decision making in health care
- researching the effects of social determinants on women's health.

The result has been increased capacity building within health organisations and communities to improve women's health.

### Emerging priorities in women's health

The NSW *Strategic Framework to Advance the Health of Women* (2000), provides some parameters for the development of health issues for women. It reaffirmed the priorities of the NWHP as well as the NSW Health priorities outlined in *Strategic Directions For Health 1998-2003* (NSW Health 2000d). See Table 1 below.

Table 1 Priorities for women's health

NSW Health priority areas	NWHP priorities
mental health	violence
cancer	reproductive health
coronary heart disease	mental health
injury	occupational health and safety
diabetes	health effects of sex role stereotyping (gender)

The NWHP and NSW Health priorities overlap to some extent and represent a combination of health problems.

The *Strategic Framework to Advance the Health of Women* committed women's health practitioners in NSW to four key strategic directions. They were to:

- 1 incorporate a gender approach to health
- 2 work in collaboration with others to address the social determinants of health

- 3 advance research on women's health experience and morbidity
- 4 apply a health outcomes approach.

It also endorsed the principle of achieving more equitable health outcomes by identifying a number of disadvantaged groups.

### Women's health practice in NSW

In NSW, the implementation of the *Women's Health Outcomes Framework* relies on the existence of a strong women's health infrastructure. This has been sustained by the women's health component of the Public Health Outcome Funding Agreement (PHOFA) which includes the Alternative Birthing Services Program.

The PHOFA has funded interventions that acknowledge and address the range of determinants affecting women's health outcomes and strongly support resource sharing across organisations including the non-government sector.

In the Area Health Services (AHSs), Women's Health Coordinators have had a pivotal role in promoting organisational change by developing partnerships between AHSs, other government agencies and the community. Together with the non-government women's health sector, they have sustained programs that specifically address health problems arising out of social inequity, gender and poor access to services.

Women's Health Coordinators seek health gains for women through:

- influencing AHS policy and planning on women's health issues
- working with senior executives to raise the profile of women's health issues
- attracting a range of additional resources to AHSs
- coordinating services between government and non-government women's health programs (NSW Health Department 1997b).

The *Women's Health Outcomes Framework* will further strengthen partnerships across agencies by clarifying future common directions in health gain for women both within and between AHSs.

# Section 2

## Women's Health Outcomes Framework

The *Women's Health Outcomes Framework* acknowledges and responds to specific issues that have emerged in women's health since the development of the NWHP.

That is, the need to:

- review the scope of women's health priorities
- develop tools to measure and monitor the effectiveness of initiatives in women's health
- comprehensively measure the impact of gender as a social determinant.

### Aims and objectives

The *Women's Health Outcomes Framework* aims to develop an outcomes approach for women's health in NSW that reflects current women's health policy and broadens the scope of women's health.

Its objectives are to:

1. clarify the process of determining women's health priorities in NSW
2. give an overview of the key determinants that contribute to poor health outcomes for women
3. review the steps required in monitoring the effectiveness of current interventions that address those determinants
4. set parameters for the development of a set of indicators that measure the best ways to improve women's health outcomes in NSW
5. link outcomes to the four key strategic directions for women outlined in the *NSW Strategic Framework to Advance the Health of Women*.

The *Women's Health Outcomes Framework* offers a step by step approach to health outcomes development in women's health using five key health outcome issues as examples:

- reduction in the prevalence of depression in women
- reduction in the prevalence of domestic violence
- increase levels of physical activity in women

- reduction in the prevalence of smoking in women
- improve maternal and infant health

Although these issues are based on key health problems for women in NSW, they are not exhaustive. They were selected because there is:

- sufficient evidence that the health problem impacts on the health of significant populations of women
- evidence for a range of determinants to be considered, including gender
- a case for broadening the scope to reflect the NSW Health Priority Areas
- an overlap with the National Women's Health Policy (NWHP)
- an opportunity to address equity by the identification of most groups of women with the poorest health.

They are also consistent with the *Report of the NSW Health Council*, which highlighted the need to address chronic diseases such as cardiovascular disease, cancer and respiratory disease (NSW Health 2000a). The health goals related to smoking, obesity and physical activity are clearly linked to these three Health Council priorities.

### Equity and social disadvantage

The *Women's Health Outcomes Framework* recognises that there are groups of women with poor health and poor access to health care. Aboriginal people are socially disadvantaged and have rates of illness and death which are substantially higher than non-Indigenous people.

While there is no separate strategic approach within this framework that highlights particular health outcome goals for Aboriginal women, the *Women's Health Outcomes Framework* acknowledges that the most socially disadvantaged groups, including Aboriginal women, require the highest priority.

## Why we need a women's health outcomes approach

A health outcomes approach shifts the focus from only measuring the impact of interventions on the health of those who present to health services. Using a population health perspective provides a comprehensive approach to planning and delivering health services that is based on sound evidence.

It seeks to examine and evaluate the structures and processes that have an effect on the health of whole populations and draws on a broad definition of health that involves primary health care, public health policy, social justice, and social and environmental interventions as well as interventions with individuals (NSW Health 1998, Sainsbury 1999).

A health outcome has been defined as:

*A change in the health of an individual, or a group of people or a population, which is wholly or partially attributable to an health intervention or a series of interventions. (NSW Health 1998)*

For many health problems there are few examples that provide evidence of a change that can be attributed to an intervention. Also, with any intervention there may be a considerable time lapse before changes in health outcomes are apparent. For both these reasons, indicators are often used to attribute the effect of interventions to a health outcome.

Once overall aims for health improvement have been set, the most practical application of outcome indicators in women's health can be through the development of indicators that are linked to program outcome measures.

Process indicators assist with monitoring interventions that are in place. They determine whether particular interventions are the best way to improve women's health outcomes.

The *Women's Health Outcomes Framework* provides the structure for developing a clear set of goals and indicators for monitoring current and future interventions. It also provides a rationale for further extending the scope of health priorities for women.

# Section 3

## Linking social determinants to health outcomes

### The effects of social and economic determinants on health

Health determinants are factors that operate at the system, social or community level to affect the likelihood that people will be exposed to a disease or condition or, when exposed, the likelihood of developing the condition. They actually **modify** the risk of disease in populations.

Common social determinants include low socioeconomic status, poor social supports within families, communities and workplaces, and lack of access to the health system. All have been shown to contribute to health risk (Syme 1996).

At the international level the World Health Organisation's *The Solid Facts* (WHO 1998) has further strengthened the impetus in public health to emphasise the effect of social and economic determinants on health:

*Disadvantage has many forms and may be absolute or relative. It can include: having few family assets, having a poorer education during adolescence, becoming stuck in a dead-end job or having insecure employment, living in poor housing and trying to bring up a family in difficult circumstances. These disadvantages tend to concentrate among the same people, and their effects on health are cumulative. The longer people live in stressful economic and social circumstances, the greater the physiological wear and tear they suffer, and the less likely they are to enjoy a healthy old age.*

*Life contains a series of critical transitions: emotional and material changes in early childhood, the move from primary to secondary education, starting work, leaving home and starting a family, changing jobs and facing possible redundancy, and eventually retirement. Each of these changes can affect health by pushing people onto a more or less advantaged path. (WHO 1998)*

### A social health model

It is now recognised that health risk is associated with social institutions – within families, communities, workplaces and the health care system – rather than with individual risk behaviours alone (Syme 1996).

Under a disease or biomedical model, the picture of health outcomes for women is obscured by mortality and morbidity data which, when viewed alone, fail to adequately reflect the broader health picture for women. The disease model may partially describe health problems but a broader social health model offers understanding of the range of health determinants throughout a person's life that can contribute to poor health outcomes.

In Figure 1 (*see page 8*), Evans and Stoddart illustrate a social health model by presenting disease as just one component in an interrelationship between the social, environmental and biological determinants that influence health (Evans & Stoddart 1994).

Figure 1 distinguishes between disease, as recognised and responded to by the health care system, and health and function as experienced by the individual person. A person's experience of illness and that of their families and other relevant groups, may not correspond with the view of the health care provider, or with the experience of others with that 'same' illness or disease.

According to Evans & Stoddart (1994), health for that person is not the only thing that matters. The ultimate objective of the health-related activity is not the reduction of disease (as defined by the health system), or even the promotion of human health and function. It is, they argue, the attainment of well-being. That is, the sense of life satisfaction of the individual.

Events in a person's life such as death of a spouse can place a person at increased risk or illness, or even death. Unemployment may lead to illness due to social isolation and stigma, although if support networks can

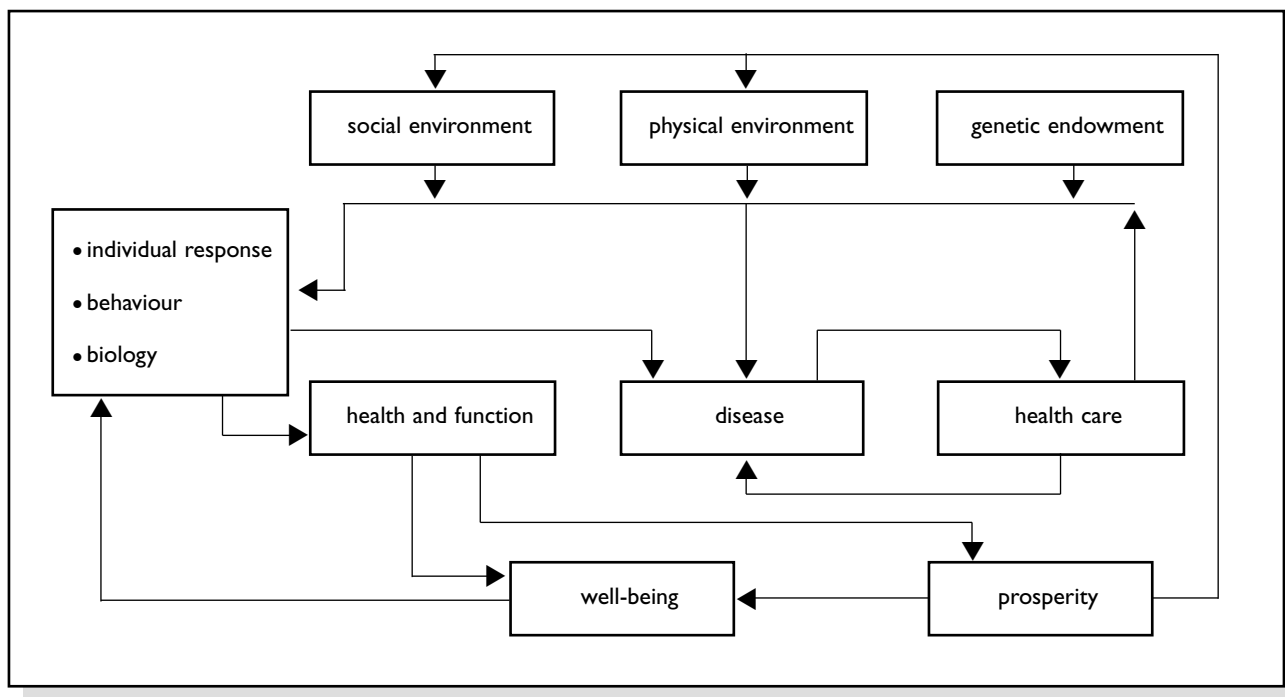


Figure 1. Interrelationship between determinants (Evans & Stoddart 1994)

assist in maintaining social contacts and if self-esteem is not undermined, then the health consequences may be minimal (Evans & Stoddart 1994).

Further, the sense of self-esteem, coping ability, powerfulness, may conceivably be either reinforced or undermined by health care interventions. Labelling effects may create a greater sense of vulnerability when a person is labelled as having an illness or disease.

The social health model forms the basis for initiatives in women's health. It demonstrates that a broad range of environmental, socioeconomic, psychological, and biological factors impact on health and that, to large extent, it is the settings, conditions and experiences of every day life that determine good or poor health outcomes for women at all ages.

The challenge for public health policy is to develop initiatives that shift the focus from health care interventions in the health sector alone to multiple activities that rely on cooperation, partnership, collaboration and effort across a range of sectors (WHO 1986, 1997). Depending on the health problem being addressed, this multi sectoral approach might, for example, bring together women's groups, the health sector, government departments, the non-government sector, social and welfare groups and services, schools, sport and recreation associations.

A social health model offers a broader and clearer understanding of the range of health determinants that contribute to poor health outcomes in women. It also requires a community based approach in which consumers and community groups are empowered and have a central role in finding new solutions to the problems they face.

Measures for the effectiveness of these community based interventions can be adapted from similar organisational and community capacity building indicators currently being tested in NSW Health (NSW Health Department 1999c, 2000a, 2001a).

### Key determinants of health for women

Determinants such as socioeconomic status, gender, social cohesion, ethnicity and violence are all linked to poor health outcomes.

The following evidence provides background information about which groups of women may be at most risk.

#### Gender

Gender refers to social expectations of women's and men's roles and responsibilities in society and the way these impact on their everyday lives. It goes beyond sex, that is, the simple biological fact of whether a person is male or female.

*Gender leads to different social, political and economic opportunities and expectations for men and women. These opportunities and expectations are not equal. Gender is regarded as one of the social determinants of health. (Kawachi & Kennedy 1997)*

NSW Health recognises the influence of gender on health. Its key policy document, *Gender Equity in Health* (NSW Health 2000d) acknowledges that gender occurs within a social context. It is largely gender rather than simple sex differences that leads to poor health status for women.

While sex differentials in mortality and morbidity data are commonly measured and reported on in health, they provide little information on the social context of health for women or men and can even cloud the actual determinants of poor health outcomes.

For example, although lung cancer mortality rates in men still outnumber women, new cases of lung cancer in women are increasing per annum. The incidence of smoking in young women is increasing at a greater rate than in young men and the issues that are influencing young women to take up smoking need to be analysed in terms of gender.

A social model of health requires close examination of the impact of gender as a determinant of health for women.

### **Social networks and cohesion**

Social capital refers to the 'features of social organisation, such as networks, norms, and trust that facilitate co-ordination and co-operation for mutual benefit' (Putnam 1993).

There is a growing body of evidence to suggest that living and participating in regions with strong social cohesion is associated with high socioeconomic status and lower mortality rates (Kawachi & Kennedy 1997). Lack of social support is associated with social disadvantage and communities that have the highest levels of poverty and unemployment tend to have the lowest levels of social cohesion. This impacts on the health of those communities.

Australian measures of low social integration – often related to living alone, separation or divorce, illness

and disability, being unemployed – have been found to be associated with higher levels of mortality. For example, living alone has been clearly associated with high mortality rates for respiratory disease, cancers, and heart disease (Siahpush & Singh 1999).

There is a need to examine the effects of where and how women live as well as the impact of poverty, life transitions and adverse events on their health (Commonwealth Department of Health and Aged Care 2000a).

The existence of strong networks and social cohesion also relates to the capacity of communities and individuals within those communities to maintain and improve their health.

### **Organisational and community capacity building**

Building capacity for health gain has been described through three central approaches:

- building health infrastructure responses
- developing partnerships between health and other agencies
- involving communities in decision making (Crisp et al. 2000).

The development of women's health organisational and community capacity building indicators will provide clear monitoring tools in women's health practice.

### **Socioeconomic status**

There is strong evidence for the link between poverty and poor health (NSW Health 1997c, National Health Strategy 1992, Turrell et al. 1999) as well as increasing evidence to support a strong social gradient in health where the highest socioeconomic groups have better health than the middle groups and the lowest socioeconomic groups have the poorest health outcomes overall (WHO 1998).

Income, education levels and employment status all have a significant impact on the health outcomes of women for many health problems (Turrell et al).

(1999), in reviewing the evidence on socioeconomic status and health in Australia state:

*Specifically, persons variously classified as 'low' SES have higher mortality rates for most major causes of death, their morbidity profile indicates that they experience more ill-health (both physiological and psychosocial) and their use of health care services suggests that they are less likely to act to prevent disease or detect it at an asymptomatic stage. (p. xi)*

Both men and women from lower socioeconomic populations in NSW are at higher risk of coronary heart disease (Taylor et al. 1999). Smoking rates, risk of cervical cancer and overweight and obesity in women are also known to increase with socioeconomic disadvantage (NSW Health 1997c).

### **Changing roles and social status of women**

Appendix A provides information about the socioeconomic status of Australian women and highlights their changing role in the domestic sphere and workplace. It identifies groups of women that are more likely to be at risk of poor health.

Data on social inequity and gender differences are useful planning tools that can assist in identifying what programs, policies and initiatives are needed to address health inequity between men and women, as well as between groups of women.

# Section 4

## Steps in an outcomes approach

The *Women's Health Outcomes Framework* is concerned with ensuring that interventions in women's health are as effective as possible and are based on the best available evidence.

This step by step approach emphasises problem analysis and is designed to guide health services to set priorities and work towards health gains in women's health. It will also assist them to develop indicators to monitor and measure current and future interventions.

The following steps are based on the health outcomes framework developed by NSW Health (1995).

### Step 1: What is the problem?

- What is the health problem being addressed?
- What is the scope of the problem? (prevalence, incidence, hospitalisations, mortality, costs and other outcomes information)
- What is the evidence for the problem? (literature review, data, focus groups and consultations with consumers and other stakeholders)
- How will stakeholders (eg, consumers, opinion leaders and community group representatives, health service and/or community welfare sector providers, relevant government or non-government agencies, educational institutions) be consulted and what role will they have?
- Is the health issue a problem for a population and is the target group defined based on equity?
- Have a range of key determinants been considered including social, economic, environmental and political as well as biomedical?
- What is the preliminary plan of action?

### Step 2: What are the aims for health improvement?

- Have goals and objectives been developed where there is a clear link between health problems, health determinants and health improvement?

### Step 3: What are the best ways to address the problem?

- Have interventions been identified which will reach the groups at risk and address the key determinants outlined in Step 1, including the social determinants where possible?
- What evidence exists that strategies and interventions chosen have been effective elsewhere?
- Do they involve:
  - the target group?
  - key stakeholders?
  - partnerships within and outside the health system?
  - organisational responses that are sustainable?

### Step 4: How can we measure what we achieve?

- Have indicators been developed that link health improvements to interventions for risk groups?
- Can indicators be measured and understood within a health setting, including the non-government sector?

### Step 5: Are current initiatives the best ways to improve outcomes?

- Are there gaps in access to existing health services and programs for this population or group?
- Given the findings in Steps 1, 2 and 3, should current services and programs be reviewed?

### Step 6: How can we improve services?

- Are new guidelines, policies or systems needed to improve services, access and outcomes?
- What infrastructure or training needs are there?
- What systems are in place to monitor improvements?
- What partnerships are in place both within and outside the sector to address either hazardous or protective determinants of health?

**Step 7: How much will it cost?**

- Is this the best use of available resources?
- Is it cost effective?
- Is it likely to lead to reduced pressure on existing or future resources?

**Step 8: How well did it work?**

- What is the evaluation plan?
- What are the agreed process, impact and outcome indicators?
- What are the benefits? How can it be improved?
- How appropriate, effective, efficient was it?
- Were consumers and other stakeholders involved in evaluation?
- Were the expected outcomes able to be measured?
- How will it contribute to better health outcomes?

**Step 9: How do we generalise and sustain it?**

- How can the benefits be maintained and supported?
- Have improvements been incorporated into the system?
- Can they be applied more widely?
- How will they be monitored for quality and outcomes?

# Section 5

## Five priority issues for women's health

The five key health issues presented here are examples only and are not intended to be exhaustive. Evidence is presented for each to show why it is an important women's health issue.

For more information about how these issues were selected (see 'Aims and objectives' on page 5).

### Mental health

#### **Reduction in the prevalence of depression in women**

Depression is the most common mental disorder in the community and its prevalence over a lifetime – estimates range from 9 to 20 per cent – is much higher than the prevalence in any one year (Commonwealth Department of Health and Aged Care & AIHW 1998).

The *National Health Priority Areas Mental Health Report on Depression* recognised the link between mental health and social determinants such as socioeconomic disadvantage and gender:

*...mental health is much more than the absence of mental illness. It is the realisation of one's potential, shaped by factors such as biological make-up, gender roles, family life, human relationships, work opportunities, educational achievements, and a variety of structural and socioeconomic determinants.*  
(Commonwealth Department of Health and Aged Care & Australian Institute Health & Welfare 1998)

In 1999, the *National Survey of Mental Health and Wellbeing* reported that in the 12 months prior to the survey 7.4% of Australian women had an affective disorder, predominantly depression, and 12% an anxiety disorder (Andrews et al. 1999). This compares with the total adult population one year prevalence where 5.8% had one or more depressive disorders and 9.7% had an anxiety disorder. The diagnostic criteria used in the *National Survey* were based on the 10th Edition of the *International Classification of Diseases* (ICD 10).

The estimated 1,231,500 Australian women affected by these disorders is considered by the researchers to be an underestimate as it excludes some at-risk

populations such as people who are homeless or residents in nursing homes, hospitals and prisons, and those with a severe mental disorder such as schizophrenia, personality and somatoform disorders (Andrews et al. 1999). The *National Survey* also considered the prevalence to be higher in the 22% of women approached who refused to respond to the interview.

The *National Survey* reported that the first peak incidence of major depressive disorders for young women occurs between 15 and 18 years (Andrews et al. 1999). By their mid-teens, they exhibit twice the prevalence rate of males and this represents the emergence of a significant gender difference for depression, which continues beyond the menopause.

There is no direct, single cause for this marked gender difference in adolescent depression. Instead, most evidence supports a number of interrelated determinants including the strong influence of psychosocial and life-event variables (Blehar & Oren 1997). The increased susceptibility of young women to depression is reported to be the result of a complex interplay of biological, social and developmental factors.

For middle aged women, there is consistent evidence that depression is not linked to simple biological explanations at the menopause (Blehar & Oren 1997). Reduction in oestrogen after menopause does not appear to be associated with increased incidence of depression, but rather depression appears to be associated with increased psychosocial vulnerability at this life transition.

The prevalence of disorders over the lifespan, as measured in the *National Survey*, found that although affective mood disorders decreased with age, the rate of decline was more rapid among men. Their prevalence was also associated with social determinants such as living arrangements, marital status and employment status and was more likely among women who were separated or divorced, living alone, and unemployed or not in the labour force.

The negative impact on the mental health of people caring for those who are chronically ill has been well documented. The majority of carers are women. Full-time carers of chronically ill parents in particular have been found to have higher levels of depression than non-carers, especially if they have less social support and are unemployed (Schofield et al. 1999).

Women who are sole parents are also significantly more likely to be depressed, particularly if unemployed (Baker et al. 1999).

A study of the mental health of women presenting to an emergency department has shown that women experiencing both child abuse or abuse as an adult (domestic violence) had significantly greater psychiatric diagnoses, in particular depression, and anxiety and phobias than women who had experienced no abuse (Roberts et al. 1998). They were also at greater risk of drug dependence, harmful alcohol consumption and had high rates of lifetime post traumatic stress disorder.

The *National Health Priority Areas Report on Depression* highlighted the needs of Aboriginal and Torres Strait Islander people, stating that social-emotional ill-health, particularly depression, can be the result of oppression, racism, grief and loss as well as socioeconomic, cultural and poor physical health factors (Commonwealth Department of Health & Aged Care and AIHW 1998).

### **Women and mental health**

#### **Determinants**

- reduced social networks and supports
- social disadvantage and unemployment
- violence
- caring for people who are chronically ill
- adolescence
- rates of depression in Aboriginal communities

## **Violence against women**

### **Reduction in the prevalence of domestic violence**

Violence and abuse is a significant problem that affects women of all ages and has profound effects on both physical and emotional health. It includes physical and sexual assault and psychological abuse, forced isolation, economic deprivation, harassment and any other action that causes a person to live in fear (Lee 2001).

Women are more likely to be severely injured or suffer abuse in their own homes and at the hands of people they know, and to be victims of repeated cycles of violence (National Committee on Violence Against Women 1993). The *Review of NSW Health Domestic Violence Policy Discussion Paper* (1999) reported that the NSW Police Service responded to 76,733 incidents of domestic violence in 1998. This is considered to be an underestimate of the prevalence of domestic violence because it is estimated that only 20% of women who experience violence report it to police.

The *Discussion Paper* highlighted that women who experience violence and do not report to the police, often seek support from health services. Australian studies of prevalence of domestic violence among women attending Emergency Departments supports this view. These studies indicate that 20% of women who attend emergency departments report having experienced domestic violence in the past with 4.7% of these women reporting violence in the last 24 hours (De Vries et al. 1996, Bates et al. 1995).

The ABS *Women's Safety Australia Survey* (1996) found that 23% of women who had ever been married or in a de facto relationship had experienced violence by a partner at some time during that relationship (ABS 1996). The *Survey* measured a range of types of violence across a sample of 6,300 women over 18 years of age. A number of demographic variables were examined including victim's age, birthplace, educational attainment, labour force status, income and marital status.

In the 12 months prior to the *Survey*, 7.1% of women had experienced a form of physical or sexual assault. Of those who had experienced either sexual or physical violence since the age of 15 years, 51.6% had experienced more than one incident of violence and

this was more often the case if women had previously experienced sexual violence. In 87% of cases of domestic violence toward women the perpetrator was male, in 61% of cases the violence was perpetrated by current male partners.

The NSW Bureau of Crime Statistics and Research (1998) commissioned an analysis of the ABS Women's Safety Australia Survey to determine which women were most at risk.

### **Risk of violence in women**

The risk of experiencing both physical and sexual violence in the previous 12 months was highest in four risk group categories of women that include:

1. young women
2. those born in Australia
3. those with a diploma or vocational training
4. women who had experienced abuse as a child.

*(NSW Bureau of Crime Statistics and Research 1998)*

The Bureau found that a history of violent victimisation as a child or adult can predict future victimisation. Women who experienced abuse as a child were more likely to experience physical or sexual abuse after the age of 15 years.

Women with all four risk factors for sexual assault, that is, are young, never married and have childhood experience of sexual assault, had almost a one in two chance of experiencing an actual or threatened sexual assault in the previous 12 month period.

Pregnancy can also be a stimulus for the first episode of domestic violence or its escalation in an already abusive relationship. Foetal death, prematurity and low birth weight for dates have been reported with domestic violence, as well as effects associated with stress and depression leading to poor foetal outcomes (Webster et al. 1994)

### **Women and violence**

#### **Determinants**

1. reduced social networks
2. women's role as carers of children
3. gender violence
4. divorce or separation
5. experience of abuse as a child

### **Physical activity**

#### **Increased levels of physical activity in women**

There is strong evidence for the health benefits of physical activity. Increased levels of physical activity can be protective against cardiovascular disease, cancer, diabetes, hypertension, obesity and high cholesterol as well as fostering social networks and improving mental health, most notably depression and anxiety (NSW Health 1997c).

The NSW Chief Health Officer's Report (1997) states that if every adult in NSW became physically active, more than 3000 deaths annually might be prevented. And, if the targets of a 3-5% increase in activity were achieved, 300 deaths could be prevented. The Chief Health Officer has recommended that every adult should accumulate 30 minutes or more of moderate intensity activity on most or all days of the week (NSW Health 1997c).

The 1999 National Physical Activity Survey (AIHW 2000) reported that only 54% of women and 60% of men were active enough for health benefit. Those likely to be less active were people who had been educated for less than 10 years, people from non-English speaking backgrounds and women. Further, women with young children were less likely than other women to be active.

A study of mothers and physical activity levels established that time constraints and multiple roles were barriers to physical activity, as was lack of partner support. (Social Health Research Unit 1999). All women in the study had partners and worked either full or part time. Those who were more active were

able to renegotiate traditional gender roles so that partners shared responsibility for childcare and domestic tasks. The lack of regular leisure time in women's lives due to multiple role demands restricted their activity levels (see Case Study 1 on page 19).

This data is consistent with the time use surveys reported on gender roles and women in the labour force (Bittman & Matheson 1996). Physically active women tend to have stronger social supports from partners, family, friends, and paid assistance with child care and domestic tasks.

There is increasing evidence that physical inactivity is influenced by gender and this is reflected in the attitudes of young girls to being physically active. The *NSW Schools Fitness and Physical Activity Survey (1997)* demonstrated that physical activity declined through adolescence, particularly for girls (Booth et al. 1997). At year eight there was little difference between boys and girls with 65% of boys and 63% of girls vigorously active. At year 10, however, 73% of boys and only 58% of girls were vigorously active and the rates declined further in winter to 43% of year 10 girls vigorously active.

The proportion of active girls increased with increasing socioeconomic status, but not for boys. The report recommended that greater effort be directed to the needs and interests of high schoolgirls to increase the proportion who are active.

### **Overweight and obesity**

Overweight or obesity is influenced by diet and activity levels. Being overweight has an impact on coronary heart disease and stroke, high cholesterol, high blood pressure and diabetes. The NSW Health Department Chief Health Officer's Report (1997) included a target to reduce the proportion of women who are overweight or obese by 25% by 2000 (NSW Health 1997c).

The prevalence of overweight and obesity was highest in the Hunter, Mid Western and Western Sydney Area Health Service populations, reflecting higher rates of obesity and overweight among lower socioeconomic groups of women (NSW Health 1997c). Those groups with high rates of obesity and overweight are also the groups with low physical activity levels.

While obesity in women is associated with four times the risk of mortality from coronary heart disease than for lean women, the mortality from cardiovascular

disease is more closely related to waist to hip ratio than to weight alone (Drug and Therapeutics Bulletin 1996). The relationship between being overweight with a waist to hip ratio that indicates cardiovascular risk has been found to be strongly associated with higher prevalence of smoking and with low levels of physical activity, particularly in women aged 40 who were from low socioeconomic backgrounds (Rosmond & Bjorntorp 1999).

### **Diabetes**

Recent studies suggest that the prevalence of diabetes is associated with physical activity levels (Folsom et al. 2000). Weight control is also an important factor.

A study of 34,257 women who were post menopausal showed that the risk of diabetes was reduced in women who regularly engage in even moderate physical activity and that the most frequently active women had half the risk of diabetes as the least active.

## **Women and physical activity**

### **Determinants**

- reduced social support
- dual role of women as carers of children and in the workforce
- socioeconomic status
- sex role stereotyping of girls' behaviour
- traditional gender roles in marriage and reduced partner support

### **Smoking**

#### **Reduction in the prevalence of smoking in women**

Of more than 6000 people who die each year in NSW from using tobacco, over a quarter die of lung cancer. Active smoking causes 75% of lung cancer in women. Environmental tobacco smoke causes a number of remaining cases (NSW Cancer Council 1999).

Although there has been a significant decline in lung cancer in men due to a decline in smoking rates, the lung cancer rates in women have more than doubled because of the rise in female smoking rates (NSW Cancer Council 1999).

The NSW Cancer Council projects an increase in new cases of lung cancer in women to 1,245 new cases by the year 2006, compared to a fall to 1,125 new cases in men. Recent evidence suggests that women may be more susceptible to carcinogens and an increasing incidence of adenocarcinoma may possibly be also due to the type of cigarettes they smoke (NSW Cancer Council 1999).

Tobacco accounts for a large percentage of cancers in organs other than the lungs, including the cervix, and for more than 40% of coronary heart disease deaths in women. Those who smoke and take the contraceptive pill have ten times the risk of heart attack.

In women less than 54 years, smoking causes 39% of strokes and smokers are 700–1000% more likely to develop chronic lung diseases (NSW Cancer Council 1999). The 1995 National Health Survey reported that asthma prevalence was higher among women who were either smokers or ex-smokers than among women who had never smoked. The relationship between asthma and smoking in men was much weaker (ABS 1999a).

The *NSW Health Promotion Survey* reported the prevalence of smoking in women in NSW is 23% (Schofield et al 1998). It found that the prevalence of smoking among school children was not declining and children were taking up smoking at younger ages. The 1996 *'Australian Schools Students' Alcohol and Drugs Survey* (1998) reported that the most susceptible age to take up smoking is 15 years, particularly for females, although the average age for experimentation is 12 years. An estimated 30,000 NSW female students were recent smokers, and, at all ages after 13 years, the prevalence was higher for females than for males, with 30% prevalence for 15 year old girls. Eighty per cent of school children who have smoked more than 100 cigarettes in one year will be smokers four years later (Schofield et al. 1998).

Smoking prevalence is highest among low socioeconomic groups, as is the incidence of smoking related illness (NSW Cancer Council 1999).

## Women and smoking

### Determinants

- socioeconomic status
- school environment
- sex role stereotyping behaviour of young girls
- self esteem and self efficacy
- peer group pressure

## Pregnancy

### Improved maternal and infant health

Low socioeconomic status has been associated with maternal and foetal risk factors (NSW Health 2000f) and there is increasing recognition that psychosocial issues such as abuse (Webster et al. 1996, Helton et al. 1987) and poor social support may impact negatively on pregnancy and postnatal outcomes (Barnet et al. 1996).

Adolescent mothers have increased risk of premature births and low birth weight babies and are also more likely to have a medical or obstetric complication (NSW Health 2000b) Recent studies indicate that the risk of preterm birth and neonatal mortality are higher among younger adolescents aged 13–15 years, than those aged 16–17 years.

The proportion of adolescent mothers is highest in the most disadvantaged groups (6.5%) and lowest in the least disadvantaged groups (1.8%) (NSW Health 2000b)

A greater percentage of young mothers are Aboriginal and in 1999, 21.5 per cent of Aboriginal births were to adolescent mothers (12–19 years). This was almost four times the non-Aboriginal rate of 4.8 per cent. (NSW Health 2000b)

There is clear evidence that Aboriginal and Torres Strait Islander women have the poorest perinatal outcomes. In 1999 the NSW Aboriginal mortality rate was 14 per 1,000 births compared to the non-Aboriginal rate of 9.2 per 1000. Low birth weight is a key risk factor for perinatal mortality and morbidity.

In 1999 the percentage of low birth weight Aboriginal babies was 12.6 per cent. This was one and a half times the non-Aboriginal rate of 6.2 per cent (NSW Health 2000f).

Smoking is the number one preventable risk factor for low birth weight babies (NSW Health 1997).

The *NSW Framework for Maternity Services* (2000f) acknowledged the convincing body of evidence that demonstrates that mothers and babies from disadvantaged groups are likely to have poorer maternal health outcomes than the population as a whole. It also highlighted the need for services that are sensitive to the needs of women from culturally diverse backgrounds, address communication barriers, improve access for women living in rural and remote areas, and meet the special medical and social needs of particular women including those who are drug- and alcohol-dependent.

The *Framework* identified a range of continuum of care issues for obstetric and midwifery practice including improved management of human resources through education and training as well as noting that a partnership approach is required to address the range of social issues that affect the poor health of women and babies. (See also Case Study 2 on page 22).

## **Women and pregnancy**

### **Determinants**

- teenage pregnancy
- social disadvantage
- smoking in pregnancy
- poor antenatal care

# Section 6

## Two case studies

The two very different case studies presented have been chosen to illustrate the range of applications of the *Women's Health Outcomes Framework*.

### Case study I

A gender analysis of physical activity through the 'Busy Mums Study' and the 'Concord – a great place to be active' intervention.

Both the 'Busy Mums Study' and the 'Concord – a great place to be active' interventions recognised the need for a gender analysis of physical activity based on the following evidence.

#### Step I: Defining the problem

An inactive population creates a public health burden and there is evidence that regular moderate to vigorous physical activity has been linked to prevention of several diseases and conditions, and to enhancement of physical and mental health. (Blair et al 1992, Boucard et al 1994, Pate et al 1995)

Two initiatives were developed by the Central Sydney Area Health Service to address inequity in physical activity levels between men and women. The 'Busy Mums Study' and the 'Concord – a great place to be active' intervention highlight how multi strategic approaches can address a range of determinants including gender.

The projects noted that quantitative studies had consistently found that women have difficulty fitting physical activity into their busy lives, often citing 'no time' as the reason. There was a need to explore what 'no time' means for women, especially women who work and have young children and partners.

Findings from qualitative research in the planning phase of the 'Concord – a great place to be active' intervention showed that:

- women with young children are less likely to be active than other women, and are more likely to cite 'no time' as a barrier to being active

- women in general are less likely to be adequately active than men even though women report their intention to be more active more often than men
- preferred activities, reasons for exercising and reported barriers to exercise are different between men and women
- women understand the health benefits of physical activity for stress reduction and more energy but report being unable to participate because of household duties and child rearing tasks
- women stated they didn't know anyone with whom they could be active.

The 'Busy Mums Study' wanted to explore these issues further and recruited women for a qualitative study who were:

- aged 30-45 years
- worked full- or part-time
- were married or in a de facto relationship
- had at least one child, the eldest being 5-12 years
- were contemplating doing more physical activity.

The women participated in in-depth interviews. The data was analysed using the qualitative data software package NUD.IST. A coding frame was developed and the data was analysed on a thematic approach and then used a discourse and gender analysis to investigate patterns that had emerged.

#### Key findings

The results of the 'Busy Mums Study' showed a combination of issues that overlap and merge to create powerful barriers to participation in physical activity for this group of women. Lack of partner support was reported as the main obstacle to physical activity and the following findings explored the effect of gender on the physical activity levels of women:

- women who were already physically active and who worked full-time had renegotiated traditional gender roles and had partners who shared the responsibility for domestic chores and child rearing

- physically active women tended to have a network of support in addition to that of their partners: eg. support from family and friends with child care and domestic tasks, participation with friends in physical activity, paid assistance with domestic tasks, paid child care
- women shaped their priorities around beliefs that domestic and carer responsibilities are properly attributed to women
- many women had strong expectations about their own roles as mother and home maker and felt guilty when they took time out to participate in physical activity
- the unpredictable role demands placed limitations on women's participation in physical activity
- many women felt that combining physical activity with family recreational time (eg. taking the children to the park) did not provide the same physical or psychological benefits as being active alone or with adult friends
- participation in physical activity took considerable organisation and much longer than the '30 minutes a day' indicated in health promotion messages.

## **Step 2: What are the aims for health improvement?**

### **'Busy Mum's Study'**

#### **Goal**

To inform strategies to increase physical activity in women with young children by providing an analysis of gender as a determinant.

#### **Objectives**

Use a qualitative approach to:

- explore factors that influence whether women with partners, children and paid employment undertake physical activity
- conduct a literature review of physical activity research, family sociology, leisure studies and feminist/women's studies and seek to explore the missing links to the ways gender and physical activity have been studied
- inform planning and policies aimed at increasing physical activity in women.

## **'Concord – a great place to be active' intervention**

### **Goal**

To increase the physical activity levels of women aged 20–50 years living in the Concord Area.

### **Objectives**

- To increase awareness in the local community that women need to be more active.
- To engage local council as a key stakeholder in addressing environmental and other barriers to physical activity for women.
- To develop strategies to engage and support local community in increasing activity levels for women with young children.

## **Step 3: What are the best ways to address the problem?**

The 'Concord – a great place to be active' intervention was designed to assist women to overcome personal, social and other barriers to physical activity through local council support and promotion of physical activity in the community. The main strategies were to:

- develop a social marketing campaign to promote physical activity for women
- increase the capacity of the local council to influence barriers to physical activity including environmental barriers for women with young children
- support local women in the community to organise community walking events, in particular women with young children.

## **Step 4: How can achievements be measured?**

Baseline physical activity levels in women aged 20–50 years in the local community were established before the interventions in Concord. The intervention aimed for a 4.5% increase in the proportion of women who engage in physical activity after the intervention.

Baseline information on activity levels was established through telephone surveys of self-reported activity measured by recall of the previous two weeks activity levels. Walking and moderate to strenuous activity was measured. Data was collected after the campaign and activities were complete.

Measures of satisfaction, including any psychological and social benefit was included in both pre and post surveys.

Council capacity to promote physical activity, involvement in walking events and capacity to change environment was also measured.

### **Step 5: Are the current initiatives the best ways to improve outcomes?**

Previous campaigns designed to promote physical activity had not considered gender determinants in why women were not as active as men.

The 'Busy Mums' Study' confirmed the effects of gender roles on physical activity levels. It explored the barriers to not having enough time to be physically active in women with young children. And was able to inform other interventions including the 'Concord – a great place to be active' campaign.

The Concord intervention addressed the need to support women with young children who were likely to be least active. Walking groups were designed to support women with very young children by giving women a network to use to encourage them to be more active.

Information about lack of time as a barrier to to being active for women with young children was addressed by involving women in local groups where they can walk together and also overcome the isolation of being alone with very young children. They can also support each other to be more active through engagement in the young parents' networks.

### **Step 6: How can we improve services and programs?**

Other campaigns designed to improve physical activity can gain from the analysis and ways of addressing gender in these two initiatives.

The women in both initiatives were a relatively homogeneous group from English speaking backgrounds on middle incomes. Future initiatives – for example, with women who are disadvantaged (low income, unemployed themselves or with unemployed partners), live in disadvantaged areas, or from culturally diverse backgrounds – might reveal a different mix of determinants.

### **Step 7: How much will it cost?**

Through the engagement of key stakeholders such as the local council, cost of the campaign has been limited and shared. Other interventions will benefit from the findings of the research around gender and need not replicate it.

The cost benefit to the health of women, although not measured, could be estimated in relation to their psychological as well as physical benefit.

### **Step 8: How well did it work?**

One of the benefits of establishing good measures pre and post campaign like those in the Concord intervention is to measure the effectiveness of the intervention through pre and post measurements.

Recall of the campaign was measured and established at 58.7% post campaign. There was a significant change in the proportion of sedentary women after the intervention from 21.6% pre campaign to 15.2% post campaign. There was also a 6% increase in intention to walk for women who had not previously been active.

Psychological and social benefits were immediate in the women who had increased activity levels as a result of the campaigns and other activities. Again, partner support was identified as the most important factor in whether a woman was physical active.

There was marked improvement in Council commitment to securing recreational space and involvement in promoting and organising walking events.

### **Step 9: How do we generalise and sustain it?**

Through the engagement of the community and local council, the intervention and information about gender as a determinant has been acknowledged and acted upon by other agencies. As a result, future initiatives are not just reliant on initiatives developed by the health sector.

Through carefully planned measures and documentation, the information and methods can be replicated in other areas with different groups.

## Sources

*Concord – A great place to be active* Promoting physical activity among women in a local area. NSW Health Physical Activity Demonstration Project.

*Busy Mums Wanted*, A qualitative study of mothers and physical activity, Social Health Research Unit, CSAHS, Camperdown, 1999.

## Case Study 2

Addressing Aboriginal Maternal and Infant Health: A Community Based Outreach Model for Antenatal Care

A multi strategic approach has been developed within a community based service model in an attempt to reduce the perinatal mortality rate among Aboriginal women.

NSW Health has implemented an Aboriginal Maternal and Infant model of care which takes antenatal care to Aboriginal communities and provides links back to mainstream obstetric care. Ten rural Area Health Services (AHSs) with the highest rates of perinatal mortality will implement the model in their areas.

### Step 1: Defining the problem

Aboriginal and Torres Strait Islander women have the poorest perinatal outcomes in NSW with a 1999 perinatal mortality rate of 14 per 1000 births. This is almost double that of all other women in NSW. Percentage of low birth weight, which is a key risk factor for perinatal mortality, was one and a half times higher for Aboriginal babies at 12.6% (NSW Health 2001b).

The risk factors associated with low birth weight include socio economic determinants, high adolescent birth rate and smoking.

Key determinants associated with low birth weight are poverty, violence and drug and alcohol use in pregnancy. Under-use of antenatal and postnatal care is another key factor for Aboriginal women. Almost one third of Aboriginal women in 1999 presented late in their pregnancy for their first antenatal visit (NSW Health 2001b).

In 1999, 21.5% of Aboriginal births were to adolescent mothers, which was four times that of non-Aboriginal adolescents. Many pregnant adolescents experience social disadvantage and low self-esteem which is associated with smoking and drug and alcohol use.

Smoking is one of the key preventable risk factors for low birth weight babies. In 1999 it was estimated that 59% of Aboriginal women in NSW smoked during pregnancy which is almost three times that of non-Aboriginal women (NSW Health 2001b).

### Step 2: What are the aims for health improvement?

#### Goal

To reduce perinatal mortality and low birth weight amongst Aboriginal women.

#### Objectives

- To strengthen working partnerships between Aboriginal community controlled Medical Services and mainstream maternity services.
- To develop a model of service provision which can more effectively meet the needs of Aboriginal women.
- To develop strategies to engage the local Aboriginal community in addressing the issue of perinatal mortality through promoting antenatal care and raising awareness of the key determinants to poor outcomes including smoking.
- To address poor use of antenatal services in hospitals by Aboriginal women through community based alternatives.

### Step 3: What are the best ways to address the problem?

A long term multi strategic approach is required to address the range of determinants associated with poor perinatal outcomes in Aboriginal communities. These approaches need to be in partnership with Aboriginal community agencies.

The strategies include:

- An Aboriginal Maternal and Infant Team of a community based Midwife and Aboriginal Worker. They will have a vehicle and be linked closely to or based at the community controlled Aboriginal Medical Service.

- Each AHS receives funds to develop a number of community based strategies that can address determinants. For example, to reduce smoking among Aboriginal women in pregnancy through community development approaches.
- Funds are allocated to link the team with local general practitioners who can assist with antenatal care and follow up of women who have complicated pregnancies.
- The team is set up to work with community networks to identify Aboriginal women who are pregnant, to follow up on their care throughout their pregnancy and to link these women to general practitioners or to hospital based services.

#### **Step 4: How can achievements be measured ?**

Funding has been set aside to develop an evaluation strategy which will measure improvements as a result of the model.

Each AHS has accepted a Performance Agreement that outlines stages of improvement in outcomes for Aboriginal women.

#### **Step 5: Are current initiatives the best ways to achieve outcomes?**

The model addresses existing gaps in access for Aboriginal women to antenatal care delivered in mainstream services.

Current mainstream obstetric services are supporting the model in line with Performance Agreements which foster partnerships across community based groups and hospital based services.

#### **Step 6: How can we improve services?**

Innovative approaches to hospital based services are required to address the specific needs of Aboriginal women.

Through the evaluation strategy the model will be measured for effectiveness in improving outcomes for Aboriginal women. Each of the strategies and the indicators will be monitored and measured so that the most effective initiatives can be used in other Areas and for other Aboriginal health issues.

The effectiveness of the model will be in the capacity to address the range of determinants that affect health including smoking, access to services, adolescent pregnancy and self-esteem.

#### **Step 7: How much will it cost?**

The partnership approach is an important way to more effectively provide, and avoid duplication of, services.

The cost effectiveness of the model will need to be measured in terms of effectiveness in addressing social determinants that have not yet been directly addressed in mainstream services.

#### **Step 8: How well did it work?**

Indicators which were agreed measures for improvement in Performance Agreements with AHSs include:

- increased numbers of Aboriginal women presenting for first antenatal check before 20 weeks gestation
- increased number of antenatal checks during pregnancy
- increased numbers of high risk and complicated pregnancies identified and managed
- increased numbers of high risk pregnancies followed up after birth
- delivery of smoking reduction strategies for Aboriginal women
- reports on the measures will be expected at the end of the first twelve months after implementation.

#### **Step 9: How do we generalise and sustain it?**

The results of measures in outcome indicators and through the evaluation will indicate the effectiveness of this model for improving outcomes in Aboriginal communities.

AHSs will be adapting the model for local use. The measures will provide information to enable them to build capacity to address this health issue.

# Section 7

## Summary

The *Strategic Framework to Advance the Health of Women* identified four key strategic directions as being necessary to inform and direct efforts in improving the health of women in NSW (NSW Health 2000e). Strategic Direction 4 was 'Apply a Health Outcomes Approach'.

The *Women's Health Outcomes Framework* is a first stage in the development of a women's health outcomes approach in NSW. It presents a step by step process that will assist Area Health Services and non-government organisations to develop indicators in order to measure and monitor the outcomes of programs and services.

The first step for any intervention in a health outcomes approach is to identify the size and extent of the health problem, the determinants (behavioural, social, environmental, economic, genetic, etc), the possibility and feasibility of modifying these determinants and to set clear long term and intermediate health and social goals to address the health outcome.

The active participation of consumers and partnerships that go beyond the health sector alone are essential in informing planning and evaluation in an health outcomes approach. Interventions, to be successful, will almost always involve multiple strategies, settings and objectives and not be restricted to behaviour change alone. (WHO 1986, 1997)

For most health problems there is no simple causal chain that directly links a health intervention to an eventual health outcome. These links may be very complex and become even more difficult to trace over the length of time it takes for the desired change in health outcome to emerge. Because changes in health outcomes at a population level may take a long time, indicators are frequently used to monitor and measure health interventions. They include performance indicators and health outcome indicators, which are in turn linked to program objectives and the desired health change respectively.

The development, trialing and testing of indicators will remain an ongoing process in women's health and it is anticipated that they will eventually result in specific indicators for measuring gender for mental health, domestic violence, physical activity, smoking and pregnancy.

In the meantime the *Women's Health Outcomes Framework* will be a useful tool to assist health services to monitor and measure what they do, to produce health gains for women in NSW and to further develop capacity to strengthen communities and meet their health needs.

# Appendix A

## Socioeconomic status and roles of Australian women

### **Education, income and employment status**

Although the female participation rate in higher education continues to rise since 1989, there are marked gender differences in fields of study between men and women. Many more women gain qualifications in health, education and social sciences and fewer women than men gain qualifications in business and administration, natural and physical sciences, engineering and architecture (ABS 1999a).

Despite improvements in educational attainment in women, the average weekly earnings of women employed full time in 1999 (\$690.40) were significantly less than for men for the same year (\$852.20) (ABS 1999b). Sixty per cent of women in two-parent families with children are employed either full or part time. The proportion of women with children who work full-time increases as the age of the youngest dependent child increases. The full-time employment participation rate represents a 20% increase in women in two parent families working full time since the early 1980s (ABS 1999c).

### **Sole parent status**

The structure of Australian families has changed over the past 30 years. The number of one-parent families continues to increase and sole parents are the group most likely to be below the poverty line (ABS 1998). Since 1966 the number of one-parent families in Australia has doubled, with the largest increase between 1976 and 1981 (43.2% increase). In 1991, 16.5% (369,704) of families with dependent children were one-parent families, with 82.8% headed by a female (ABS 1994).

Of the 15% (772,400) of families with one parent in June 1999 where the child was resident with the parent, 89% of parents were female (ABS 1999c). This data reflects the social trend where children predominantly live with their mother after divorce or separation.

Percentage of sole parents not in the labour force has decreased since 1994 to 48% in June 1999, suggesting that women who are responsible for caring for children alone are also often employed.

### **Women's dual role as carers and paid employment**

The changes in gender roles and family relations has been described as one of the most significant recent social changes in Australia (Bittman & Matheson 1996). The change in women's labour force participation has led to a focus on the impact this has had on the lives of women, in view of their roles as carers, particularly of children and the frail aged.

An analysis of time use surveys finds that women's increased time spent in the paid labour force has not led to a significant decrease in time spent in unpaid work such as domestic labour and the role of carer. This highlights an unfair burden in total workload on women.

Bittman and Matheson (1996) analysed the 1992 *ABS Time Use Survey*, which revealed that women continue to carry out domestic tasks regardless of their participation in full-time employment. There is little change in roles between men and women in the households where they both engage in paid employment. Women are adapting slightly to the dual roles by balancing time spent between domestic tasks and paid employment, thereby assuming the burden of paid and unpaid work.

There is increasing evidence to suggest that women are reporting the health effects of time pressure. The *Women's Health Australia Longitudinal Survey* demonstrated that the more rushed a woman felt the more likely she was to assess her health as poor. The percentage of mid age cohort of women who report constant tiredness rises as the hours in paid employment increases (Brown & Brown 1999).

Although both men and women in full time employment have increased the length of their working day since 1974, the most dramatic increase has been in women where 15% of women in 1997 report a working day of longer than nine hours. The average number of 'unsociable' working hours, defined as greater than the average 8 hour working day, has grown by one hour per week for men and almost three hours for women. The increase in working hours includes women working part time (Bittman & Rice 1999).

There is also evidence to suggest that the health of women who are carers of their aged and disabled relatives are at greater risk of poor health than non-carers. Seventy-eight per cent of carers are women and major health problems – poor mental health, lower levels of life satisfaction, poor social support and time pressure – are much more likely to be reported by women who care for disabled and aged relatives (Scholfield et al. 1999).

### **Women and housing**

Housing has been recognised as having a strong relationship with health (Hopton & Hunt 1996). The social circumstances of many women impacts on their housing options. Unpaid work as carers of children and in the household reduces the ability of women to participate in the full-time paid workforce and leads to reduced income levels and limited housing choices. This is most commonly the case after divorce or separation where women remain the primary carers of children and the head of the household. There are a number of factors which also make women vulnerable to homelessness, the most critical being low income, breakdown of relationships and domestic violence.

# Appendix B

## Key terms and concepts

Term	Description
<b>Capacity building</b>	<p>A top down approach that depends on establishing trust and dependability and may involve working at various levels – with individuals, groups or across organisations – to enhance health gain. Builds on pre-existing skills, structures, partnerships and resources, works with and respects these, thus increasing the likelihood that effective health promotion programs will be sustained. Includes the exchange of skills between groups, seeking of resources, a practitioner working one on one in a community with a project team or with people from other sectors.</p> <p>An important element in health promotion, its goals may be to:</p> <ul style="list-style-type: none"> <li>● develop infrastructure</li> <li>● enhance program sustainability</li> <li>● foster problem solving capabilities.</li> </ul> <p>Increases the range of people, organisations and communities who are able to address health problems and, in particular, problems that arise out of social inequity and social exclusion. (NSW Health Department 2001a)</p>
<b>Community capacity building</b>	<p>Strengthening of communities through enhancing participation, enabling a better flow of information and developing the skills and capabilities to translate information into knowledge that is relevant to empower the community.</p> <p>See also ‘Community development’ and ‘Social capital’.</p>
<b>Consumer participation and consultation</b>	<p>Involving a broad range of consumers at the outset in decisions that affect their lives and promote health and well-being. It is essential to reduce health inequality and contributes to better and more relevant decisions, more effective and culturally appropriate services, greater ownership and more sustainable programs.</p> <p>See also ‘Community capacity’ below.</p>
<b>Community capacity</b>	<p>The characteristics of communities that affect their ability to identify, mobilise, and address social and health problems and the cultivation and use of transferable knowledge, skills, systems and resources that affect community and individual level changes consistent with population health-related goals and objectives (Goodman et al. 1998).</p> <p>See also ‘Capacity building’ above.</p>
<b>Community development</b>	<p>Process of facilitating community awareness of the factors and forces that affect health and quality of life. Empowering the community with the skills needed to take control over and improve those conditions. Involves helping communities to identify issues of concern and facilitating their efforts to bring about change in these areas (Hawe, Degeling and Hall 1990).</p>
<b>Determinants of health</b>	<p>A factor that operates at the system, social or community level to affect the likelihood that people will be exposed to a disease or condition or, when exposed, the likelihood of their developing the condition. Are usually applied to whole populations and actually modify the risk of disease in populations. For example, exposure to economic and social inequality is a determinant of health and well-being. Thus modification of these determinants will result in changes in population health and well-being (Commonwealth Department of Health and Aged Care 2000a).</p> <p>Turrell et al. (1999) proposes a conceptual framework for understanding the socioeconomic determinants of health as consisting of three interrelated stages or levels: Upstream (macro) factors, midstream (intermediate) factors, downstream (micro) factors.</p> <p>See also ‘Risk and protective factors’ below.</p>

Term	Description
<b>Disease model of health</b>	<p>Also known as the biomedical or clinical model. Focuses on mortality rates and patterns of health service use (eg. hospital statistics) for those who present with acute, diagnosable, physical or severe health care needs.</p> <p>In this model, outcomes relate to the provision of clinical services for the diagnosis and management of disease in individual clients. (Sainsbury 1998)</p>
<b>Equity in health</b>	<p>Implies that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential if it can be avoided (Whitehead 1990).</p> <p>According to Oldenburg et al. (2000), evidence based interventions, strategies and actions with the potential to reduce health inequalities can be grouped into:</p> <ul style="list-style-type: none"> <li>● changed macro level social and economic policies</li> <li>● improving living and working conditions</li> <li>● involving local communities in health initiatives</li> <li>● reducing behavioural risk factors</li> <li>● empowering individuals and strengthening their social and family networks</li> <li>● improving the equity of the health care system.</li> </ul> <p>Some of these actions can be undertaken by the health sector alone (eg. provision of health services), some involve health working with other sectors (supporting families in disadvantaged communities) and many involve other sectors working independently from health.</p>
<b>Evaluation</b>	Used to describe the process of measuring the value or worth of a program or service.
<b>Health</b>	A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO 1958).
<b>Health outcome</b>	A change in the health of an individual, group of people or a population which is wholly or partially attributable to an health intervention or a series of interventions (NSW Health 1998).
<b>Health outcomes approach</b>	Emphasises assessment of the effectiveness of intervention(s) and the resulting outcomes, as well as the sensitivity of services to the needs of the population (NSW Health 1998).
<b>Indicators</b>	<p><b>Health Outcome Indicators</b> are statistics or other units of information which reflect, directly or indirectly, the effect of an intervention or series of interventions on improving the health of the population. May be used as a performance indicator (but not all performance indicators relate to health outcomes).</p> <p><b>Health Outcome Performance Indicators (HOPIs)</b> are used to reflect the process and/or outcome of a particular health improvement activity. They provide an insight into a total activity. They may also refer to risk factors or processes.</p> <p>See also 'Process indicators' and 'Outcome indicators' below.</p>
<b>Interventions</b>	See 'Prevention' below.

Term	Description
<p><b>Jakarta Declaration on Leading Health Promotion into the 21st century</b> (WHO 1997)</p>	<p>Released at the Fourth International Conference on Health Promotion, this document provides a vision and focus for health promotion.</p> <p>Health promotion, through investment and action, has a marked impact on the determinants of health so as to create the greatest health gain for people, to contribute significantly to the reduction of inequities in health, to further human rights, and to build social capital. The ultimate goal is to increase health expectancy and to narrow the gap in health expectancy between countries and groups.</p> <p>It notes that there is now clear evidence that:</p> <ul style="list-style-type: none"> <li>● <b>comprehensive approaches</b> to health development (such as proposed by the Ottawa Charter) are more effective than single track approaches</li> <li>● <b>particular settings</b> offer practical opportunities for implementation of comprehensive strategies - mega-cities, islands, cities, municipalities, local communities, markets, schools, workplaces and health care facilities</li> <li>● <b>participation</b> is essential to sustain efforts – people have to be at the centre of health promotion action and decision-making processes for them to be effective</li> <li>● <b>health learning</b> fosters participation – access to education and information is essential to achieving effective participation and the empowerment of people and communities.</li> </ul> <p>Describes the priorities for health promotion as:</p> <ul style="list-style-type: none"> <li>● raising awareness of the changing determinants of health</li> <li>● supporting the development of collaboration and networks for health development</li> <li>● mobilizing resources for health promotion</li> <li>● accumulating knowledge on best practice</li> <li>● enabling shared learning</li> <li>● promoting solidarity in action</li> <li>● fostering transparency and public accountability in health promotion.</li> </ul>
<p><b>Ottawa Charter for Health Promotion</b> (WHO 1986)</p>	<p>The first International Conference on Health Promotion was held in Ottawa, Canada. It issued a Charter calling on all international organisations to advocate the promotion of health and support countries to set up strategies and programs for health promotion.</p> <p>The Ottawa Charter shifted the focus away from an individual, disease prevention approach towards the population as a whole in the context of everyday life.</p> <p>Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love. Health is created by caring for oneself and others, by being able to take decisions and have control over one's life circumstances and by ensuring that the society one lives in creates conditions that allow the attainment of health by all its members.</p> <p>Promoted a comprehensive approach to health development including:</p> <ul style="list-style-type: none"> <li>● building healthy public policy</li> <li>● creating supportive environments</li> <li>● strengthening community action</li> <li>● developing personal skills</li> <li>● reorienting health services.</li> </ul> <p>Defined health as not just the responsibility of the health sector, but as requiring coordinated action involving all sectors of society to focus on achieving equity in health.</p>

Term	Description
<p><b>Population health approach</b> (sometimes referred to as the 'New Public Health')</p>	<p>Takes into account all the determinants of health and how they can be tackled and seeks to empower and support individuals and groups in the community to take greater control over issues that affect their health. Promotes health and a reduction in illness across the whole population and/or particular population groups, along with monitoring trends and evaluating outcomes.</p> <p>Recognises that the determinants of disease and inequities in health often lie outside the health system and that intersectoral collaboration and the participation of target groups and communities are crucial in planning and evaluating interventions to improve health outcomes. Includes identifying unmet needs in communities, building capacity of providers and community-based groups. Emphasis on health promotion, prevention and early detection of disease as well as equity of health status, health resource allocation, and health service use regardless of socioeconomic status, gender, age, race and location. Complements a clinical model of health.</p> <p>See also 'Ottawa Charter' above.</p>
<p><b>Prevention</b></p>	<p>Describes interventions that occur before a diagnosis of disease is made and aims to reduce the occurrence of new cases, decrease risk and/or increase protective factors that can be documented, delay the onset of illness, reduce the length of time that early symptoms continue, and/or halt a progression of severity.</p> <ul style="list-style-type: none"> <li>● <b>Universal interventions</b> are targeted to the general public or a whole population group.</li> <li>● <b>Selective interventions</b> are targeted to individuals or a sub-group of the population whose risk of developing the health problem is significantly higher than average. Risk may be imminent or a lifetime risk.</li> <li>● <b>Indicated interventions</b> targeted to high-risk individuals who are identified as having minimal but detectable signs or symptoms foreshadowing the specified health condition, or a predisposition to it. (NSW Health 1998)</li> </ul>
<p><b>Performance indicator</b></p>	<p>Reflects, directly or indirectly, the extent to which an anticipated outcome is achieved, or the quality of processes leading to that outcome. (NSW Health 1998)</p>
<p><b>Process indicators</b></p>	<p>Lists measures of progress that are specific to each priority group in order to attain desired outcomes.</p>
<p><b>Resilience</b></p>	<p>Capacities within a person that promote positive outcomes and provide protection from factors that might otherwise place that person at risk of adverse health outcomes. For example, personal coping skills and strategies for dealing with adversity such as problem-solving, good communication and social skills, optimistic thinking and help seeking contribute to mental health and wellbeing (Commonwealth Department of Health and Aged Care 2000a).</p>
<p><b>Risk and protective factors</b></p>	<p>These translate the determinants of disease to the level of individuals or particular groups.</p> <ul style="list-style-type: none"> <li>● Risk factors increase the likelihood of disease or a disorder.</li> <li>● Protective factors reduce that likelihood and/or produce resilience to it.</li> </ul>
<p><b>Social health model</b></p>	<p>Like the population health approach, it recognises that disease occurs as a result of a complex interrelationship between social, psychological, environmental and biological factors and therefore requires collaboration and partnership across whole communities to effect improvements in health. Forms the basis for initiatives in women's health. See page 7.</p>

Term	Description								
<p><b>Social capital</b></p>	<p>Refers to the ‘features of social organisation, such as networks, norms, and trust that facilitate co-ordination and co-operation for mutual benefit’ (Putnam 1993).</p> <p>An emerging concept in the sense that it is still being defined and measures are still being developed (Winter 2000). Onyx and Bullen (2000), in their study of social capital in five communities, concluded that social capital is ‘essentially an attribute of networks of people in families, neighbourhoods, communities and other social arenas’.</p> <p>Relates to sociability, reciprocal and equal relationships in communities and trust on three levels: between friends and family, of strangers and of government. That is, a sense of safety, connection and belonging to the community, along with strong emotional support networks among family and community. Also connected to adequate income, meaningful work and a sense of control over decision making.</p>								
<p><b>Stakeholders</b></p>	<p>Different people and groups that are affected by interventions, decisions, consultations and policies.</p>								
<p><b>Rural and remote communities</b></p>	<p>The rural, remote and metropolitan areas (RRMA) classification recognises three zones and seven area categories and was developed in 1994 by the Commonwealth Department of Primary Industries and Energy and Commonwealth Department of Human Services and Health.</p> <p>The RRMA categories show incremental disadvantage with rurality and remoteness as risk factors.</p> <table border="1" data-bbox="411 898 1369 1592"> <thead> <tr> <th data-bbox="411 898 783 958">Zone</th> <th data-bbox="783 898 1369 958">Category</th> </tr> </thead> <tbody> <tr> <td data-bbox="411 958 783 1099">Metropolitan</td> <td data-bbox="783 958 1369 1099">           Capital cities            Other metropolitan centres            (urban centres population &gt; 100,000)         </td> </tr> <tr> <td data-bbox="411 1099 783 1384">           Rural            (index if remoteness&lt;19.5)         </td> <td data-bbox="783 1099 1369 1384">           Large rural centres            urban centres population 25,000-99,000             Small rural centres            (urban centres population 10,000-24,999)             Other rural areas            (urban centres population &lt;10,000)         </td> </tr> <tr> <td data-bbox="411 1384 783 1592">           Remote            (index of remoteness &gt;10.5)         </td> <td data-bbox="783 1384 1369 1592">           Remote centres            (urban centres population &gt;5,000)             Other remote areas            (urban centres population&lt;5,000)         </td> </tr> </tbody> </table>	Zone	Category	Metropolitan	Capital cities Other metropolitan centres (urban centres population > 100,000)	Rural (index if remoteness<19.5)	Large rural centres urban centres population 25,000-99,000  Small rural centres (urban centres population 10,000-24,999)  Other rural areas (urban centres population <10,000)	Remote (index of remoteness >10.5)	Remote centres (urban centres population >5,000)  Other remote areas (urban centres population<5,000)
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# Abbreviations

ABS	Australian Bureau of Statistics
AHS	Area Health Service
GAP	NSW Government Action Plan
HOPIs	health outcomes performance indicators
NACCHO	National Aboriginal Community Controlled Health Organisation
NGO	non-government organisation
NSW	New South Wales
NWHP	National Women's Health Policy
PHOFA	Public Health Outcomes Funding Agreement
RRMA	rural, remote and metropolitan areas
SES	socioeconomic status
WHO	World Health Organization
WHOF	Women's Health Outcomes Framework

# Notes

# Notes