

Monitoring National Health Priority Areas in WA – Heart Disease

WA Health and Wellbeing Surveillance System Epidemiology Branch

Key Implications from this bulletin

The results in this bulletin suggest that there are opportunities for health gains by reducing the prevalence of a number of known risk factors for heart disease. Specifically by:

- reducing the number of people who smoke
- reducing the number of people with high blood pressure
- reducing the number of people with high blood cholesterol
- reducing the number of people who are overweight or obese
- increasing the number of people who are sufficiently active

The results also support the previously identified associations of heart disease with:

- decreased general health and quality of life
- diabetes
- socio-economic disadvantage.

Some facts about Heart Disease

Cardiovascular disease (CVD) has been identified as one of seven National Health Priority Areas because it is the largest cause of premature death and overall mortality in Australia and the costs and economic burden associated with CVD are higher than for any other disease.¹

In 2003, coronary heart disease accounted for 18 per cent of all deaths in Western Australia (WA).² Between July 2003 and June 2004 there were 6,809 hospitalisations related to angina and a further 3,409 for acute myocardial infarction in WA.³

National indicators have been developed to evaluate the progress of strategies to reduce the occurrence of heart disease and improve the quality of life of people living with heart disease.

The WA Health and Wellbeing Surveillance System surveys 6500 people of all ages throughout the State each year. Information is collected on a wide range of health and wellbeing issues, including heart disease.

The purpose of this bulletin is to report the status of indicators for heart disease that are monitored by the WA Health and Wellbeing Surveillance System, in the WA population.⁴

National and State heart disease indicators reported in this bulletin include:^{5,6}

- Prevalence of people living with heart disease, including people from rural and remote areas, disadvantaged socio-economic groups and people with diabetes
- Health status of people living with heart disease
- The self-reported prevalence of risk factors associated with heart disease.

Reported prevalence of heart disease

Table 1 shows the reported prevalence of heart disease by age and sex. The prevalence of heart disease increased with age, and was twice as high for males compared with females for people aged 45 years and older.

Table 1 Reported prevalence of heart disease, by age and sex, persons aged 25 years and over, WA, 2005

Indicator	Males %	Females %	Estimated no. people ⁷
16 to 44 years	0.8	1.5	6,654
45 to 64 yrs	8.9	4.7	32,985
65 years and older	29.4	17.8	52,723

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Table 2 shows the reported prevalence of heart disease by area of residence, relative socio-economic status⁸ and diabetes status.

Table 2 Reported prevalence of heart disease, by heart disease indicators, persons aged 25 years and over, WA, 2005

Indicator	Prevalence %	Estimated no. people
Area of residence		
Metropolitan	7.3	73,668
Rural	7.2	148,050
Remote	4.6	3,889
Relative socio-economic status		
Highest level of socio-economic disadvantage	8.4	14,848
Upper-middle level of socio-economic disadvantage	6.6	15,536
Middle-level of socio-economic disadvantage	7.7	16,131
Lower-middle level of socio-economic disadvantage	6.4	15,895
Lowest level of socio-economic disadvantage	6.6	19,000
Co-morbidity of diabetes		
Persons with diabetes	6.2	74,669
Persons without diabetes	20.7	17,260

The term prevalence is equal to the percentage or proportion of the population who have a condition.

The prevalence of people who reported living with heart disease in WA:

- Was three times higher for people who reported having diabetes mellitus compared with those who did not.
- Was higher for people from metropolitan compared with remote areas.

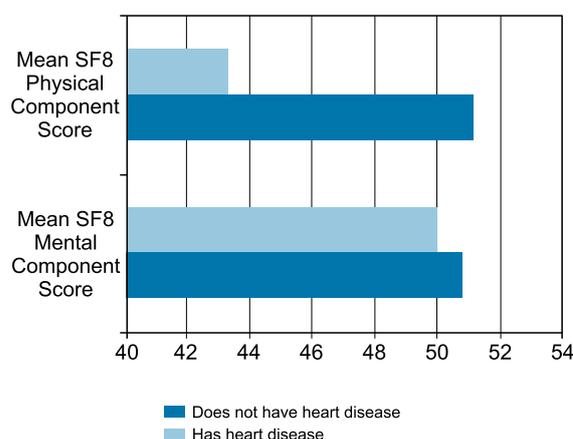
Health status of people who reported living with heart disease

Two measures of quality of life collected by the WA Health and Wellbeing Surveillance System include self-rated general health status and mental and physical functioning as measured by the SF8 scale.

Figure 1 Percentage of people with and without self-reported heart disease, by general health status, persons aged 25 years and over, WA, 2004 – 05



Figure 2 Mean level of physical and mental functioning by reported heart disease status, persons aged 25 years and over, WA, 2004–05



These figures show that:

- A higher proportion of people with heart disease reported having fair or poor health compared with people who did not report having heart disease (Figure 1).
- Average levels of physical functioning were lower for people who reported having heart disease compared with people who did not report having heart disease (Figure 2).

Reported prevalence of risk factors for heart disease

Table 3 shows the prevalence of reported smoking, high blood cholesterol,⁹ high blood pressure,¹⁰ insufficient physical activity,¹¹ and overweight and obesity¹² for people with and without heart disease, and the estimated total number of people with these risk factors.

Table 3 Prevalence of risk factors, by heart disease status, persons aged 25 years and over, WA, 2005

Risk factor	Reported heart disease	Didn't report heart disease	Estimated no. of people
Smoking	12.8	19.2	242,180
High blood cholesterol	47.6	12.3	184,255
High blood pressure	51.7	14.7	221,214
Insufficient physical activity	55.7	41.3	617,354
Overweight	39.0	36.3	454,588
Obese	20.5	18.1	226,800

Higher proportions of people with self-reported heart disease compared with people who did not report having heart disease:

- Reported having high blood cholesterol and/or high blood pressure.
- Did not undertake the recommended amount of physical activity.
- Were overweight or obese.

Associates of self-reported heart disease

People within the community share characteristics. For example, a person can be male, aged 65 years, be a non-smoker, and have high blood pressure.

Characteristics that were found to be associated with heart disease are shown in Table 4.

The 'odds ratio' indicates how much more or less likely a person was to report living with heart disease after taking into account the influence of other factors. Odds ratios greater than one indicate increased likelihood while those less than one indicate decreased likelihood of having the outcome of interest.

Table 4 Associates of self-reported heart disease, persons aged 25 years and over, 2005

Characteristics	Odds Ratio
Currently has or was on treatment for high blood cholesterol	3.06
Annual income less than \$20,000	2.21
Male	2.03
Currently has or was on treatment for high blood pressure	1.69
Current smoker	1.34
Age	1.05

- Age had the greatest impact on the odds of reporting heart disease, with an average five per cent increase in odds for each one year increase in age.
- The odds of reporting heart disease were three times higher for people with high blood cholesterol compared with people who did not report having high blood cholesterol.
- Being male and earning less than \$20,000 per year both doubled the odds of reporting heart disease.
- Being a smoker and having high blood pressure also significantly increased the likelihood of reporting heart disease.

Trends over time

Since 2002, the WA Health and Wellbeing Surveillance System has continuously collected information related to heart disease and selected factors associated with heart disease. Table 5 shows how trends have changed over the period from 2002 to 2005.

Table 5 Changes in indicator trends over time, 2002 to 2005¹³

	Favourable	Little/no change	Unfavourable
Prevalence of living with heart disease for males		✓	
Prevalence of living with heart disease for females		✓	
People who smoke	✓		
People who report having high blood pressure		✓	
People who report having high blood cholesterol		✓	
Mean time spent doing sustained physical activity			✓
Mean body mass as measured by the Body Mass Index			✓

- The proportion of people who reported having heart disease has not changed over time.
- The proportion of smokers has decreased over time.
- There was no change in the proportion of people who reported having high blood pressure and high blood cholesterol over time.
- The time spent doing sustained physical exercise has significantly decreased since 2002.
- Mean body mass has significantly increased since 2002.

End Notes and References

1. National Health Priority Area: Cardiovascular Health. Website: <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pq-cardio-index.htm>
2. Draper G, Unwin E, Serafino S, Somerford P, Price S (2005). Health Measures 2005: A Report on the Health of the People of Western Australia. Perth: Department of Health WA.
3. Epidemiology Branch analysis of Hospital Morbidity Data, Department of Health, WA.
4. For more information contact the Epidemiology Branch or visit the Epidemiology website: http://intranet.health.wa.gov.au/corpdocs/hic/Epidemiology/New_Epi/
5. National Heart, Stroke & Vascular Health Strategies Group (2004). National Strategy for Heart, Stroke and Vascular Health in Australia, Commonwealth of Australia.
6. Department of Health, WA (2002) Healthy Lifestyles 2002–2007: A Strategic Framework for the Primary Prevention of Diabetes and Cardiovascular Disease in Western Australia, WA Government.
7. Based on 2004 estimated residential population for WA.
8. SEIFA quintile 1 is classified as most socio-economically disadvantaged and SEIFA quintile 5 classified as least socio-economically disadvantaged. Information about SEIFA can be found in the publication: Trewin, D (2003). Socio-Economic Indexes for Areas: Australia 2001, Canberra, Australian Bureau of Statistics.
9. High blood cholesterol has been defined as currently having or being on treatment for high blood cholesterol.
10. High blood pressure has been defined as currently having or being on treatment for high blood pressure.
11. Insufficient physical activity is measured by Active Australia questionnaire and is defined as doing less than 150 minutes of moderate exercise per week.
12. Overweight or obese based on Body Mass Index.
13. Changes over time were assessed using SPSS V14.0 Time Series and Linear Regression.

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