

The cost of physical inactivity

What is the lack of participation in physical activity costing Australia?

August 2007

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- A man with dark hair and a mustache is sitting on a light-colored leather sofa. He is wearing a dark blue polo shirt and blue jeans. He is holding a black video game controller with both hands and looking directly at the camera with a wide-eyed, surprised expression. The background is a plain, light-colored wall.
- Physically inactive Australian adults are costing the healthcare system an avoidable \$1.5 billion a year
 - Almost 9 million Australian adults do not do enough physical activity on a daily basis
 - Not doing enough physical activity doubles the risk of cardiovascular disease, Type 2 diabetes, and obesity, and increases the risk of breast and bowel cancer, depression and anxiety

Contents

- 4 What is physical inactivity costing Australia?
- 6 How much activity is enough?
- 8 The health impacts of physical inactivity
- 10 Other costs of physical inactivity
- 11 Need help getting active?



Australia is a sport loving nation

Many of us live and breathe to support our favourite sporting team, we thrive on sporting rivalries between club, state, and country. As a nation we pride ourselves on our passion for sport being second to none around the world.

However, new research confirms our sports obsession is not reflected in our sports participation and the lack of participation in physical activity in Australia is costing many people their health, in some cases their life, and costing the economy significantly.



What is physical inactivity costing Australia?

If more Australians were physically active for just 30 minutes a day¹ the Australian healthcare system could save \$1.5 billion a year, whilst creating a healthier community.

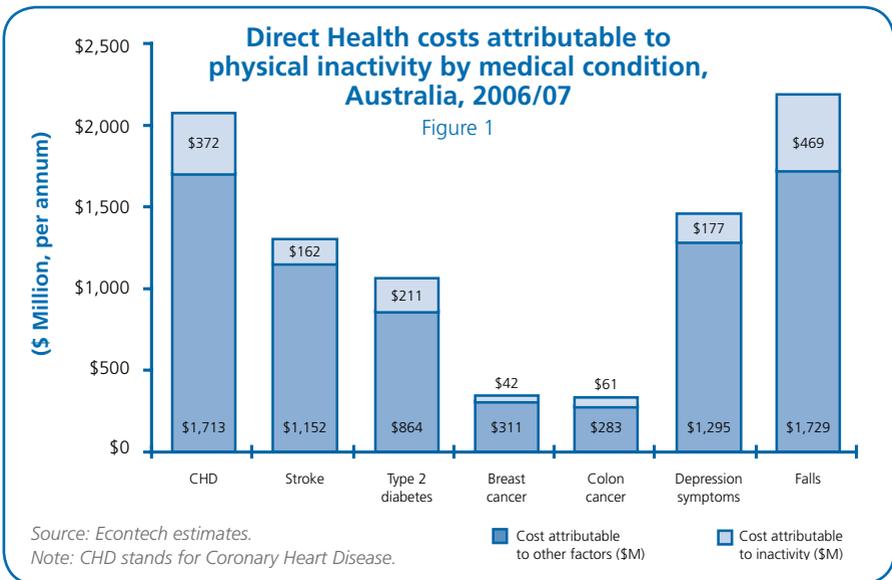
For the first time, Medibank Private has put a dollar figure on the cost of physical inactivity to the Australian healthcare system.

Research commissioned by Medibank Private, conducted by Econtech (an independent economic consultancy), has calculated the gross and net direct health costs of physical inactivity of seven medical conditions:

- Coronary heart disease (CHD)
- Stroke
- Type 2 diabetes
- Breast cancer
- Colon cancer
- Depression
- Falls

The research estimated the direct costs, attributable to physical inactivity, for the seven medical conditions, based on medical evidence showing a strong relationship between physical inactivity and the increased risk of mortality and/or incidence of these conditions.

The research revealed 17% of the total health cost of treating these seven conditions can be attributed to physical inactivity amongst Australian adults² – equating to \$1.5 billion in direct healthcare costs.



¹ The National Physical Activity guidelines (NPA guidelines) for Australians recommend 30 minutes of moderate-intensity physical activity a day as the minimum requirement for good health. However, to be considered 'physically active' the NPA Survey states you should participate in at least 150 minutes of moderate-intensity physical activity over at least five sessions in a week.

² Adult Australians defined as 18 – 75.

The \$1.5 billion cost refers to direct health expenditure, in the public and private sectors, for the prevention, diagnosis and treatment of medical conditions attributable to physical inactivity.

Of the \$1.5 billion the largest proportion, \$468.7 million, is spent on costs related to falls, followed by \$371.5 million for costs related to Coronary Heart Disease due to physical inactivity.

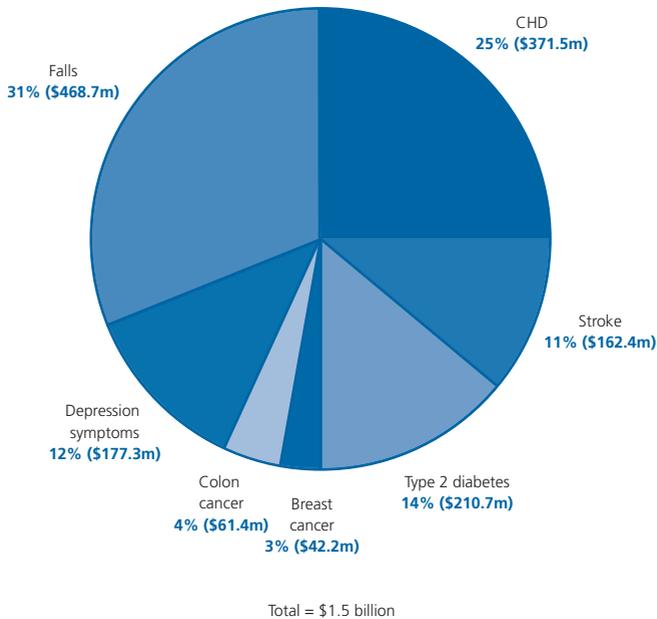
The research calculated both the gross and net direct health costs of physical inactivity, \$1.5 billion

is the gross cost. The net cost was calculated as the direct gross costs less the expenses associated with participation in physical activity including sports injuries and fitness-related expenses. The direct health costs of sports injuries and the cost of participating in fitness related activities was recorded at \$831.4 million.

These figures clearly demonstrate that the cost of physical inactivity far outweighs the cost of participating in fitness activities and the cost of healthcare for sports injuries.

Contribution of medical conditions to overall direct gross inactivity cost

Figure 2



Source: Econtech Note: CHD stands for Coronary Heart Disease.

How much activity is enough?

It is widely accepted that physical activity is essential in improving health and wellbeing, but how much physical activity is enough to maintain a healthy lifestyle?

According to Australia's National Physical Activity Survey, to be considered physically active, a total of at least 150 minutes (2.5 hours) of moderate activity should be completed over at least five separate sessions during a week.

The intensity of the physical activity should represent a noticeable increase in a person's breathing and heart rate.

This is more straightforward than it may appear. For example, 150 minutes can be broken down to a 15-minute walk – to the train, around the block, with the kids to school – five times a week, plus one exercise session of one hour and 15 minutes a week, of whatever activity appeals to you.

Are we doing enough?

The 2000 National Physical Activity Survey found that 54.2% of the Australian adult population were not getting enough physical activity to remain healthy.

Assuming that the prevalence of inactivity has remained constant in 2007, the research reveals that close to nine million adult Australians are putting their health, quality and length of life at risk due to insufficient physical activity.

Prevalence of physical inactivity in Australia

Figure 3



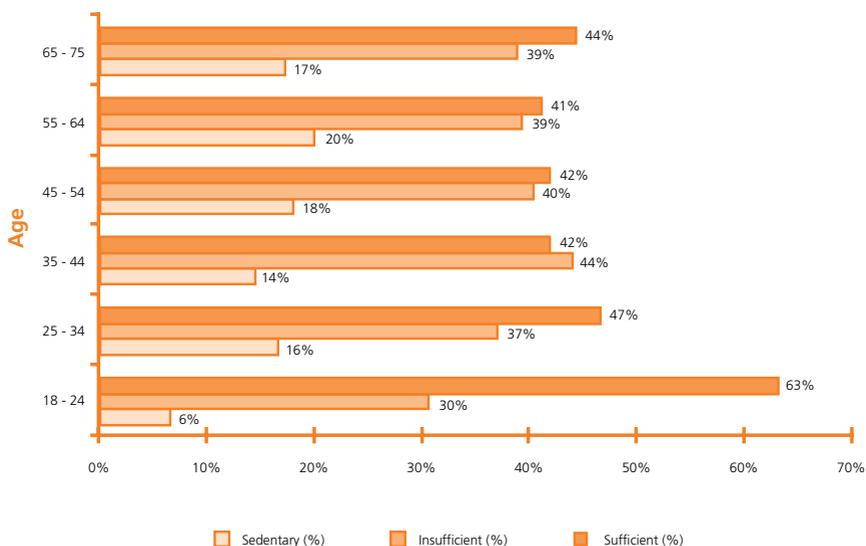
Source: Econtech and 1997, 1999 and 2000 National Activity Surveys.

Note: (a) The estimates presented in this chart are age standardised³.

(b) 2007 estimate was calculated by assuming the prevalence of inactivity remains unchanged for the period 2000-07.

% of people by age group achieving sedentary, insufficient and sufficient levels of physical activity

Figure 4



Source: National Physical Activity Survey 2000.

Sedentary = Participating in little to no physical activity

Insufficient = Participating in physical activity, but less than required to be classified as physically active

Sufficient = Participating at least 150 minutes of moderate activity accrued over five sessions within a week

Are children active enough?

The estimates of the prevalence of physical inactivity presented in this report do not include children and adolescents, which makes it highly likely that the total physical inactivity figures of the total Australian population are higher than those presented in this report.

³ Age-standardised rates enable comparisons to be made between populations which have different age structures. It effectively minimises the effects of differences in age composition and thus facilitates valid comparison of rates for populations with different age compositions.

The health impacts of physical inactivity

Physical inactivity doubles the risk of cardiovascular disease, Type 2 diabetes, and obesity, and increases the risk of breast and bowel cancer, depression and anxiety⁴.

According to the World Health Organisation, physical inactivity causes:

- 2 million deaths a year worldwide⁵;
- increases all causes of mortality.

To calculate the gross cost of physical inactivity this research measured the impact of physical inactivity on each of the seven medical conditions.

To estimate the proportion of the incidence of each medical condition that may be attributable to physical inactivity a formula was used to calculate the Population Attributable Risk (PAR) of each condition.

The PAR puts a value on the incidence of medical conditions amongst physically inactive Australian adults compared with physically active Australian adults.

It calculates the maximum proportion of the seven conditions attributable to physical inactivity, which shows the potential reduction in the prevalence of a disease or incident that could be achieved if the Australian adult population were more physically active.

For example, it is estimated that nearly 950,000⁶ Australian adults aged over 25 have diabetes. According to this research, up to 20% of this figure could be attributed to physical inactivity.



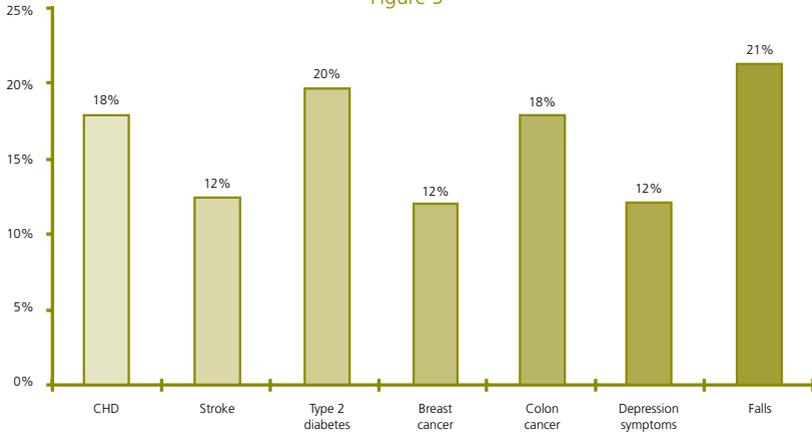
⁴ WHO (2002). *Risks to health-promoting healthy living*. World health report, pp 60.

⁵ World Health Organisation (2003), *Global Strategy on Diet, Physical Activity and Health*.

⁶ Australian Institute of Health and Welfare, *Australia's health 2006*, pg.70.

Population Attributable Risk (PAR) estimates for conditions related to physical inactivity

Figure 5



Source: Econtech estimates. Note: CHD stands for Coronary Heart Disease.

The PAR is calculated by looking at the prevalence of inactivity among Australian adults and the relative risk of the seven medical conditions.

The relative risk measures the association between physical inactivity and a particular medical condition and is determined by dividing the rate of the disease among inactive people by the rate of disease among active people.

The relative risk rates the increased risk of suffering from one of the conditions for physically inactive people in comparison to physically active people. For example, physically inactive people have a 40% higher risk of suffering from Coronary Heart Disease than those who are physically active and a 45% higher risk of contracting Type 2 diabetes.

Relative risk estimates for selected conditions

Figure 6

Medical Conditions	Relative Risk
CHD	40%
Stroke	26%
Type 2 diabetes	45%
Breast cancer	25%
Colon cancer	40%
Depression symptoms	25%
Falls	50%

Source: Armstrong et al. (2004) and Stephenson et al. (2000).

Note: CHD stands for Coronary Heart Disease.

Other costs of physical inactivity

Of course there are also indirect and intangible health costs that come with the medical conditions attributable to physical inactivity.

Costs such as:

- Pain, disability, anxiety, and suffering due to the medical conditions;
- A reduction in quality of life – often for the person with the medical condition and their family;
- Shorter life expectancy; and
- An impact on workforce participation due to absenteeism and presenteeism.

Not participating in enough sport and physical activity during our lives clearly has a negative impact on our life expectancy and quality of life.

On average, participating in moderate to vigorous levels of physical activity throughout our life can add 2.5 years to the total life expectancy for both men and women.

In the current social environment of an ageing population and a society beset with preventable and chronic illnesses such as obesity and Type 2 diabetes, the message to move more and more often, is imperative to ensuring a healthier, more active, Australia.



Need help getting active?

At Medibank Private we believe a good way to prevent sickness is to promote health and we want to help members take a more active role in managing their health and wellbeing.

Medibank Private members have automatic access to *betterhealth* online, a health, fitness and wellbeing program.

betterhealth online offers exercise planners, healthy recipes, and health related articles to help people improve, or maintain, a healthy lifestyle.

For those with an active lifestyle but motivated to tackle specific sporting goals or training for competition, *betterhealth* online also offers Active Sport Programs.

Active Sport Programs are prepared by experts to suit individual sporting ambitions and match various levels of expertise with daily warm-up and workout plans – the programs cover:

- Marathon
- Fun Runs
- Open water swims
- Strength training
- Sprint distance triathlons
- Cycling
- Skiing

Start getting more physically active by visiting *betterhealth* online – medibank.fitness2live.com.au

About Medibank Private:

Medibank Private is Australia's largest provider of private health insurance, covering over 3 million people. Medibank Private offers health insurance to all Australians through retail and corporate products, as well as catering for international students and visitors.

About Econtech:

This research was conducted by Econtech on behalf of Medibank Private. Econtech is one of Australia's leading independent economic consultancies, with an emphasis on economic modelling. Specialising in consulting on taxation, policy and forecasting, as well as forecasting reports and software.

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