



The benefits of prevention: healthy eating and active living



Health

A Summary of Findings



By increasing the proportion of the NSW population who are a healthy weight by 2018 (so that one in two adults are of a healthy weight) and increasing levels of physical activity by 15% and increasing fruit and vegetable consumption by 44% as identified in the Healthy Eating and Active Living Strategy:



Approximately **3,000** deaths and **8,000** new cases of disease would be avoided.



There would be opportunity cost savings to the health sector of at least **\$136 million**.



There would be savings to individuals in home based activities (including cooking, shopping, cleaning, child care and maintenance) and in leisure of about **\$130 million**.



There would also be significant benefits to businesses with savings of **approximately \$20 million** in workforce production, recruitment and training costs.

Every dollar spent on healthy eating and active living returns between \$1.91 - \$3.81



**\$1.91 -
\$3.81**

By achieving the targets of the Healthy Eating and Active Living Strategy a number of health and productivity benefits will be realised. Two new reports detailing these benefits are summarised here.

Suggested citation:

NSW Office of Preventive Health. The benefits of prevention: healthy eating and active living. North Sydney: Ministry of Health, 2015.

Increasing the proportion of NSW adults eating adequate amounts of fruits and vegetables by 44% would:



Result in **1,000 less deaths** and **1,000** less new cases of disease.



Lead to a gain of 37,000 days in home based production and 68,000 days of leisure.



Bring about opportunity savings of **\$41 million** to the health sector.



Result in an additional **\$16 million** in work and home based productivity savings.

Increasing the number of NSW adults participating in moderate physical activity (of at least 30 minutes) on five or more days of the week by 15% would:



Result in **2,000 less deaths** and **5,000** less cases of disease.



Lead to a gain of **540,000 days** in home based activities (including cooking, shopping, cleaning, child care and maintenance) and over **1 million days of leisure**.



Lead to a saving of approximately **\$121 million** per year in annual direct healthcare costs in NSW.



Bring about opportunity savings of **\$94 million** to the NSW health sector.



Result in an additional **\$138 million** in work and home based productivity savings.

Background

Overweight and obesity and their associated lifestyle risk factors of physical inactivity and unhealthy eating have a large impact on the health, economic and financial burden in Australia. The prevention of chronic diseases such as type 2 diabetes, hypertension, heart disease and some cancers offers substantial benefits at both an individual and a societal level.

Healthy Eating and Active Living Strategy: Preventing overweight and obesity in NSW 2013-2018, provides a whole of government framework to promote and support healthy eating and active living in NSW and to reduce the impact of lifestyle-related chronic disease.

It aims to encourage the community to make healthy lifestyle changes at a personal level and create an environment that facilitates healthier living, through better planning, built environments and transport solutions.

In 2013 **8.4%** of NSW adults had diabetes



*Reducing the adult prevalence of overweight and obesity by **5%** would prevent **830 cases of type 2 diabetes** per year.*

Two new preventive health reports

To determine the benefits to the individual and the community of implementing initiatives to promote and support healthy eating and active living and accordingly decrease lifestyle risk factors, the NSW Ministry of Health commissioned two independent academic studies:

1. A **rapid review** was undertaken by the Prevention Research Collaboration, University of Sydney¹ with the aim of examining the potential broader health impacts and benefits of the inter-sectoral approach undertaken by the HEAL Strategy.
2. An **economic appraisal** undertaken by Deakin University² with the aim of estimating the health status, economic and financial benefits of reducing the prevalence of risk factors associated with fruit and vegetable consumption, physical activity and healthy weight³.

The main findings of these reports are summarised here.

¹ St George, A., et al., *The Healthy Eating and Active Living Strategy - Additional Health Benefits. An Evidence Check brokered by the Sax Institute (www.saxinstitute.org.au) for the NSW Ministry of Health 2014.*

² Ananthapavan, J., A. Magnus, and R. Carter, *Economic appraisal of the National Partnership Agreement of Preventive Health targets for reducing the prevalence of low fruit and vegetable intake, physical inactivity and high Body Mass Index. Deakin University for the NSW Ministry of Health 2014.*

³ Cadilhac, D., et al., *The health and economic benefits of reducing disease risk factors. VicHealth: Victoria, 2009.*

Overweight and Obesity

In 2011 52.6% of NSW adults were overweight or obese, and in 2010, 22.8% of children were overweight or obese.

Impact and costs of adult obesity

Obesity has a major impact on a person's physical, mental, psychosocial and economic health. Obesity is associated with a broad range of diseases such as type 2 diabetes, coronary heart disease, stroke, cardiovascular disease, osteoarthritis, hypertension and some cancers. Obesity has also been linked to impaired quality of life and psychosocial disturbance.

The economic cost of obesity in Australia was estimated to be \$8.3 billion in 2008 (\$3.6 billion estimated to be related to productivity costs, \$2.0 billion related to health system costs and carer costs were in the order of \$1.9 billion). The costs of individual's lost



*The economic cost of obesity for NSW in 2008 was **\$19.0 billion***

wellbeing was valued at \$49.9 billion; bringing the total cost of obesity to \$58.2 billion across Australia; with \$19.0 billion being apportioned to New South Wales.

Obesity is estimated to account for between 0.7% - 2.8% of a country's total healthcare expenditure and obese individuals are found to have medical costs that are approximately



*Obesity has been linked to **impaired quality of life** and **psychosocial disturbance***

30% greater than those of a healthy weight.

The costs of obesity are also born by employers and workplaces through direct healthcare and insurance claims and indirect costs from lost productivity due to illness and disability. Obese workers miss more workdays due to illness, injury or disability compared to non-obese workers or those who have a Body Mass Index in the healthy weight range.

Potential impacts of reducing population levels of overweight and obesity

Overweight and obesity has been stable in NSW since 2009. Reducing the prevalence of overweight and obesity in NSW to levels experienced in 2009 would mean that:

- there would be potential savings to the economy in the order of 3,000 days of lost work could be saved.
- there would be a gain of 48,000 days in home based activities and over 72,000 days of leisure.

The health and economic benefits of such a population decrease in overweight and obesity would translate to potential opportunity savings of \$23 million in the health sector savings and an additional \$14 million in productivity savings.



*Potential opportunity **cost savings** associated with **reducing the prevalence of overweight and obese** will accrue in **the health sector**, followed by **savings for individuals***

Healthy Eating

Impacts of unhealthy eating and drinking

There is some evidence regarding the link between the consumption of energy dense nutrient poor foods and sugar-sweetened drinks and an increased risk of a number of chronic diseases and conditions.

There is strong evidence to support the link between increased fruit and/or vegetable consumption and a reduction in a number of health conditions, including:

- All-cause mortality
- Cardiovascular mortality
- Type 2 diabetes
- Some cancers (gastric, colorectal, breast, oral, lung, oesophageal, endometrial and non-Hodgkin's lymphoma)

Impact and costs if fruit and vegetable consumption is increased

If the proportion of NSW adults eating adequate amounts of fruits and vegetables is increased by 44% it would result in:

- a gain of 37,000 days in home based production and 68,000 days of leisure.
- a potential opportunity saving of \$41 million in the health sector savings and an additional \$16 million in productivity savings.

25%



Reducing consumption of sugary sweetened drinks (by 25%) would prevent 450 cases of diabetes annually in NSW

The total costs savings of achieving the targets for overweight and obesity, fruit and vegetable consumption and physical activity combined would together lead to:

a potential opportunity saving of \$136 million in health sector savings and \$150 million in productivity savings



*Largest potential opportunity **cost savings** associated with **increasing** the prevalence of adequate **fruit and vegetable intake** and adequate **physical activity** will occur in the **health sector***

Physical Activity

Impacts and benefits of Incidental, moderate and vigorous physical activity

There is evidence to support a strong association between physical inactivity and a sizeable number of chronic health diseases and conditions.

There is also an economic benefit associated with physical activity; by increasing population physical activity levels direct healthcare costs can be reduced; with estimates that in Australia, \$377 billion per year of annual direct healthcare costs could be saved (apportioned to \$121 billion for NSW). In relation to other direct and indirect benefits, improved wellbeing and life satisfaction, health-related quality of life, sleep quality, global self-esteem and body image are associated with physical activity.

Impact and costs if physical activity increased

By increasing the proportion of NSW adults participating in at least 30 minutes of moderate physical activity on five or more days of the week by 15% (such that there was a decrease in the proportion of NSW adults who were physically inactive from 44.7% to 29.7%), over the lifetime of the 2018 NSW population there would be:

- Savings of 50,000 days of lost work in NSW.
- Gains of 540,000 days in home based activities and over 1 million days of leisure in NSW.
- A potential opportunity saving of \$94 million in the health sector savings and an additional \$138 million in work and home based productivity in NSW.

12%



12% of Australian adults sit for more than 10 hours per day.

If weekly physical activity was increased by 15%, 366 deaths would be prevented per year in NSW.

Benefit ratio

The NSW Ministry of Health directly spends approximately \$15 million a year on adult overweight and obesity primary prevention programs (eg *Get Healthy Information and Coaching Service, Get Healthy at Work*, social marketing, plus some funds spent by Local Health Districts, but excludes treatment costs). Over the life of the five year HEAL strategy this equates to \$75 million.

Based on the conservative benefits reported here, if the proportion of the NSW population who are of a healthy weight is increased, and levels of physical activity and fruit consumption are increased, there will be \$286 million worth of savings across the business, health, home and community sector. Achievement of healthy weight targets will require environmental and policy changes in addition to primary prevention programs, and a conservative approach to calculating a benefit ratio suggests that a range of benefits will be achieved depending on how much of the target is reached. If the target is fully achieved, this equates to a cost benefit ratio of 1: 3.81, so that for every dollar spent there is a return of investment of \$3.81. If only half the benefits are achieved, the benefit ratio is 1: 1.91, or \$1.91 benefit for every dollar invested.

