

# Impact and outcome indicators for nutrition, physical activity and obesity programs

## Rationale

This list of indicators has been compiled to assist in improving the quality of evidence that is collected in evaluations for nutrition, physical activity and obesity programs. An indicator (or performance measure) is a concrete way of measuring change in desired outputs, impacts and outcomes over a specific time period in your program.

The table below defines a common set of indicators that can be used for the evaluation of nutrition, physical activity and obesity programs. These indicators are validated state-wide or national indicators and have reliable information sources, e.g. the Victorian Population Health Survey (VPHS) and the Victorian Child Health & Wellbeing Survey (VCHWS). Victorian state indicators are consistent with those collected at a national level by the Australian Bureau of Statistics.

By specifying an agreed list of indicators there is a greater opportunity to compare the impacts and outcomes of different programs and to strengthen the evidence base for guiding future policy and program development. A list of tools for measuring these indicators is currently in development.

INDICATORS	Population group	Source	Numerator	Denominator
<p><b>Increased physical activity</b></p> <p>Proportion of <u>adults</u> aged 18 years and over who undertook the recommended levels of PA in the <u>past week</u></p>	Adults aged 18 years and over.	Victorian Population Health Survey (VPHS) <sup>i</sup>	Number of adults aged 18 years and over who are reported to undertake the recommended moderately intense levels of physical activity for 150 mins or more every week [1]	Number of adults 18 years and over in sample
<p>Proportion of <u>children &amp; young</u> people who do the recommended levels of PA <u>every day</u><sup>ii</sup></p>	Children (5-12 years) & Adolescents (13-17 years)	Victorian Child Health & Wellbeing Survey (VCHWS) <sup>iii</sup>	Number of children aged 5 to under 13 years who are reported to be physically active for 60 mins or more everyday [2]	Number of children aged 5 to under 13 years in sample
		Victorian Adolescent Health & Wellbeing Survey (VAHWS)	Number of young people aged 13-17 years who are reported to be physically active for 60 mins or more everyday [3]	Number of young people 13-17 years of age in sample
<p><b>Decreased sedentary behaviour</b></p> <p><i>No agreed adult indicator currently available.</i></p> <p>Proportion of <u>children &amp; young people</u> who use electronic media for more than 2 hours per day<sup>iv</sup></p>	Children (5-12 years) & Adolescents (13-17 years)	VCHWS	Number of children aged 5 to under 13 years of age & young people aged 13-17 years who spend more than 2 hours a day with electronic media (including TV, videos, DVDs and /or computers) [2, 3]	Number of children aged 5 to under 13 years of age in sample
		VAHWS		The number of young people aged 13-17 years of age in sample

<sup>i</sup> The Victorian Population Health Survey (VPHS) is a state-wide annual survey reported at Department of Health Regional level. Local Government Area level data are reported every 3 years from 2008, then in 2011 and 2014 <http://www.health.vic.gov.au/healthstatus/vphs.htm>. VPHS has a state-wide sample size of 7500 people. The VPHS local government area level sample size is 34,000.

<sup>ii</sup> There are currently no guidelines for physical activity levels for children less than five years of age.

<sup>iii</sup> The Victorian Child Health and Wellbeing Survey (VCHWS) data is collected every three years from 2006. The VCHWS has a sample size of 5000 parents or carers of Victorian children aged from birth to 12 years of age. Local Government Area level data is reported for 25 Best Start sites in 2007. The Victorian Adolescent Health and Wellbeing Survey (VAHWS) is planned to be collected for adolescents every 3 years from 2009 <http://www.education.vic.gov.au/about/directions/children/vcams/default.htm>.

<sup>iv</sup> There are currently no guidelines for use of electronic media for children less than five years of age.

INDICATORS	Population group	Source	Numerator	Denominator
<p><b>Increased healthy eating</b></p> <p>Proportion of <u>adults</u> meeting the minimum recommended levels of fruit and vegetable consumption</p>	Adults 19 years and over	VPHS	Number of adults who eat the minimum recommend 5 serves of vegetables & 2 serves of fruit every day [4]	Number of adults in sample
<p>Proportion of <u>children</u> and <u>young people</u> who eat the minimum recommended serves of fruit &amp; vegetable every day<sup>v</sup>.</p>	Children (4 to under 13 years) & Adolescents (13-17 years)	VCHWS	Number of children aged 4 to under 13 years who eat the minimum recommended serves of vegetables (for 4-7 years: 2 serves, 8-11 years: 3 serves, 12 years: 4 serves) & fruit (for 4-11 years: 1 serve, 12 years: 3 serves) daily [5]	Number of children aged 4 to under 13 years in sample
		VAHWS	Number of young people aged 13-17 years who eat the minimum recommended serves (3 fruit & 4 vegetables daily) [5]	Number of young people aged 13-17 years in sample
Proportion of infants breastfed	Infants 3 and 6 months	VCHWS	Number of infants exclusively and fully breast-fed at 3 & 6 months of age	Number of infants aged 3 months to less than two years where the respondent was the biological mother
<p><b>Decrease in energy dense, micronutrient-poor foods</b></p> <p><i>No agreed indicator currently available</i></p>				
<p><b>Intake of energy dense drinks, soft drinks, fruit juice and cordial</b></p> <p><i>No agreed indicator currently available</i></p>				

<sup>v</sup> There are currently no guidelines for fruit and vegetable intake for children less than 4 years of age.

INDICATORS	Population group	Source	Numerator	Denominator
<b>Overweight and obesity</b> Proportion of <u>adults</u> who are overweight or obese	Population aged 18 years and over	VPHS <i>Self reported measure</i> <sup>vi</sup>  National Nutrition Survey 1995 [6]  <i>Measured data</i>	The number of adults who have a BMI indicating they are overweight or obese	Population aged 18 years and over
Proportion of <u>children &amp; young people</u> who are overweight or obese <sup>vii</sup>	Children aged 2-14 years  Children aged 4-17 years	National Children's Nutrition and Physical Activity survey [6]  <i>No data source yet identified in Victoria</i>	Number of children whose BMI score is above the international cut-off point for 'overweight' and 'obese' for their age and sex in sample [7]	Number of children aged 2-14 years in sample

Please note the same data source can be reported in different ways. For example the indicator "Proportion meeting recommended levels of fruit and vegetable consumption" is reported by the VPHS as a proportion for fruit and vegetable separately. A reporting requirement of the National Partnership Agreement is to measure an increase in the mean number of daily serves (see Appendix 1). In this example the data source and questions are the same although the way the data is presented is different.

<sup>vi</sup> It is important to note that studies comparing measured and self-reported height and weight have shown that people tend to underestimate their weight and overestimate their height, which results in an underestimation of body mass index (BMI) measurement. Therefore, estimates of overweight and obesity that are based on self-reported information are likely to underestimate true prevalence in a population. A further note is that BMI calculations fail to consider lean body mass, such that the BMI formula may classify a healthy, muscular individual with very low body fat as being obese. A BMI of greater than or equal to 25 is considered overweight obese and greater than 30 is considered obese.

<sup>vii</sup> There are currently no recommended definitions for overweight or obesity in children aged less than 2 years.

## References

1. DoHA Department of Health and Ageing. 1999, *National Physical Activity Guidelines for Australians*, AusInfo, Canberra.
2. DoHA Department of Health and Ageing. 2004a, *The National Physical Activity Guidelines for Australians (Recommendations for 5-12 year olds)*, AusInfo, Canberra.
3. DoHA Department of Health and Ageing. 2004b, *The National Physical Activity Guidelines for Australians (Recommendations for 12-18 year olds)*, AusInfo, Canberra.
4. DoHA Department of Health and Ageing and NH&MRC National Health and Medical Research Council. 2005, *Food for Health-Dietary Guidelines for Australians (A guide to healthy eating)*, AusInfo, Canberra.
5. NH&MRC National Health & Medical Research Council. 2003, *Dietary Guidelines for Children and Adolescents in Australia incorporating the Infant Feeding Guidelines for Health Workers*, AusInfo, Canberra.
6. McLennan W and Podgeger A. 1997, *National Nutrition Survey Selected Highlights*, Australian Bureau of Statistics, Canberra.
7. Cole TJ, Bellizzi MC, Flegal KM and Dietz WH. 2000, *Establishing a standard definition for child overweight and obesity worldwide: international survey*, *British Medical Journal*, 320: pp. 1240-1243.

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## **Appendix 1. National Performance Indicators**

The following indicators and outcomes have been agreed at a National Level by the Australian and State and Territory Governments to address the rising prevalence of lifestyle related chronic diseases. Performance indicators in the National Partnership Agreement are consistent with performance targets in the National Healthcare Agreement. The indicators and outcomes relevant to nutrition, physical activity and obesity include:

### ***The National Partnership Agreement on Preventative Health***

#### Outcomes

Increase the proportion of children and adults at healthy body weight by 3 percentage points within 10 years;

Increase the proportion of children and adults meeting national guidelines for healthy eating and physical activity by 15 per cent within six years

#### Performance Benchmarks

Increase in proportion of children at unhealthy weight held at less than five per cent from baseline for each State by 2013; proportion of children at healthy weight returned to baseline level by 2015.

Increase in mean number of daily serves of fruit and vegetables consumed by children by at least 0.2 for fruit and 1.5 for vegetables by 2015.

Increase in proportion of children participating in at least 60 minutes of moderate physical activity every day from baseline for each State by five per cent by 2013; by 15 per cent by 2015.

Increase in proportion of adults at unhealthy weight held at less than five per cent from baseline for each state by 2013; proportion of adults at healthy weight returned to baseline level by 2015.

Increase in mean number of daily serves of fruit and vegetables consumed by adults by at least 0.2 for fruit and 0.5 for vegetables from baseline for each state by 2013; 0.6 for fruit and 1.5 for vegetables from baseline by 2015.

Increase in proportion of adults participating in at least 30 minutes of moderate physical activity on five or more days of the week of five per cent from baseline for each state by 2013; 15 per cent from baseline by 2015.

#### Performance Indicators are:

Children and adults at a healthy body weight;

Children and adults meeting the national guidelines for fruit and vegetable consumption;

Children and adults meeting the national guidelines for physical activity

### ***National Preventative Health Strategy***

#### Targets

Halt and reverse the rise in overweight and obesity