

Towards national indicators for food and nutrition: an AIHW view

**Reporting against the Dietary Guidelines for
Australian Adults**

Australian Institute of Health and Welfare

February 2006

Australian Institute of Health and Welfare
Canberra

AIHW cat. no. PHE 70

© Australian Institute of Health and Welfare 2006

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced without prior written permission from the Australian Institute of Health and Welfare. Requests and enquiries concerning reproduction and rights should be directed to the Head, Business Promotion and Media Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601.

A complete list of the Institute's publications is available from the Business Promotion and Media Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, or via the Institute's website <<http://www.aihw.gov.au>>.

ISBN 1 74024 545 8

Suggested citation

AIHW 2005. Towards national indicators for food and nutrition: an AIHW view. Reporting against the Dietary Guidelines for Australian Adults. AIHW Cat. No. PHE 70. Canberra: AIHW.

Australian Institute of Health and Welfare

Board Chair
Hon. Peter Collins, AM, QC

Any enquiries about or comments on this publication should be directed to:

Population Health Unit
Australian Institute of Health and Welfare
GPO Box 570
Canberra ACT 2601
Phone: (02) 6244 1000

Published by Australian Institute of Health and Welfare
Printed by

Foreword

Nutrition is a key determinant of health and wellbeing. Current evidence suggests that there are still significant nutritional issues to be addressed in Australia – many of our current health concerns are directly or indirectly related to diet. However, there is limited recent data available for ongoing nutrition monitoring and surveillance.

Towards National Indicators for Food and Nutrition: An AIHW View is a timely publication in the light of the current planning for a national food and nutrition monitoring and surveillance system, and more immediately, a Children’s National Nutrition and Physical Activity Survey.

By presenting existing measures relevant to monitoring against the Dietary Guidelines for Australian Adults, this report provides a baseline document for the development of Australian food and nutrition indicators. The AIHW supports the development of comprehensive national indicators to ensure that there is ongoing reporting.

The AIHW joins with many in the nutrition community in calling for the continued development of regular and appropriate data sources and consistent reporting of nutrition-related data. Indicators are an essential component of a comprehensive monitoring system and will be invaluable in ensuring effective development and evaluation of policy and interventions to improve the nutrition of Australians.

I would like to acknowledge Anne Marie Thow for her work in preparing this report, as well as those who gave generously of their time to referee the report.

Dr Ching Choi

Acting Director

Australian Institute of Health and Welfare

Contents

Foreword	iii
List of tables	vi
List of figures	viii
Acknowledgments	ix
Abbreviations.....	x
Symbols.....	xi
Summary	xii
1 Introduction.....	1
1.1 Reporting against the Dietary Guidelines for Australian Adults.....	1
1.2 Food and nutrition monitoring in Australia.....	2
1.3 International data.....	3
2 Existing measures for food and nutrition monitoring in Australia	6
2.1 Eat plenty of vegetables, legumes and fruits	6
2.2 Eat plenty of cereals (including breads, rice, pasta and noodles), preferably wholegrain.....	11
2.3 Include lean meat, fish, poultry and/or alternatives	15
2.4 Include milks, yoghurts, cheeses and/or alternatives	22
2.5 Drink plenty of water	28
2.6 Limit saturated fat and moderate total fat intake	30
2.7 Choose foods low in salt.....	33
2.8 Limit your alcohol intake if you choose to drink.....	35
2.9 Consume only moderate amounts of sugars and foods containing added sugars	40
2.10 Prevent weight gain: be physically active and eat according to your energy needs.....	44
2.11 Care for your food: prepare and store it safely	49
2.12 Encourage and support breastfeeding.....	53
2.13 Other nutritional issues: food security	57
2.14 Other nutritional issues: folate.....	59

3 Discussion.....	63
4 Conclusion.....	65
Appendix 1 – data sources	66
Appendix 2 – international data	73
Glossary.....	110
References.....	113

List of tables

Table 1:	Measures included in the report	4
Table 2:	Average daily fruit, vegetable and legume intakes, 1995.....	8
Table 3:	Usual daily fruit and vegetable intake, 2001	9
Table 4:	Published international measures relating to fruit and vegetable consumption.....	9
Table 5:	Apparent per capita consumption of grain products (cereals), average of 3 years ended 1938–39 to 1998–99.....	12
Table 6:	Average daily cereal intakes, 1995	12
Table 7:	Average daily intake of fibre among adults, 1995.....	13
Table 8:	Published international measures relating to cereal and fibre consumption.....	14
Table 9:	Apparent per capita consumption of meat, poultry, fish and alternatives, average of 3 years ended 1938–39 to 1998–99	16
Table 10:	Average intakes of meat, fish, poultry and alternatives products and dishes among adults, 1995	17
Table 11:	Average iron intake among adults, 1995	18
Table 12:	Proportion of adults with iron deficiency, 1989.....	19
Table 13:	Published international measures relating to intakes of meat, fish, poultry and alternatives, iron intakes and iron status	20
Table 14:	Apparent per capita consumption of milk and milk products, average of 3 years ended 1938–39 to 1998–99.....	23
Table 15:	Average daily intakes of milk products and dishes, 1995.....	24
Table 16:	Average calcium intakes among adults, 1995	25
Table 17:	Published international measures relating to consumption of milk, milk products and dishes, and calcium.....	26
Table 18:	Average daily intakes of non-alcoholic fluids, 1995.....	28
Table 19:	Published international measures relating to fluid intakes	29
Table 20:	Consumption of whole cow’s milk, 2001	31
Table 21:	Average daily fat intakes for adults, 1995.....	31
Table 22:	Fat as a proportion of energy intake, 1995.....	31
Table 23:	Published international measures relating to fat intakes	32
Table 24:	Proportion of people who add salt to food after cooking, 2001	34

Table 25: Published international measures relating to sodium intake and use	34
Table 26: Alcohol consumption associated with harm	35
Table 27: Average daily alcohol intake among adults, 1995	37
Table 28: Proportion of adults consuming alcohol at risky and high-risk levels, 2004	38
Table 29: Published international measures relating to consumption of alcohol	38
Table 30: Average daily sugar intakes, 1995	42
Table 31: Sugar as a proportion of energy intake, 1995	42
Table 32: Published international measures relating to consumption of sugar	43
Table 33: Average daily energy intake and ratio of energy intake to basal metabolic rate, for adults, 1995	45
Table 34: Proportion of adults undertaking insufficient physical activity, 2000	45
Table 35: Proportion of adults overweight and obese, and abdominally obese, 1999-2000	46
Table 36: Published international measures relating to energy intakes, physical activity, and overweight and obesity	47
Table 37: Notifications of foodborne illness for selected foods, 2004	50
Table 38: Notifications of foodborne illness by setting category, 2003	51
Table 39: Published international measures relating to food safety	52
Table 40: Proportion of children ever breastfed, 2001	54
Table 41: Proportion of children receiving breastmilk at 6 and 12 months of age, 2001	54
Table 42: Proportion of infants fully breastfed at 3 and 6 months of age, 2001	55
Table 43: Published international measures relating to breastfeeding	55
Table 44: Food insufficiency, 2001	57
Table 45: Published international measures relating to food security	58
Table 46: Folate use among women of child-bearing age, 2001	60
Table 47: Average folate intake among adults, 1995	61
Table 48: Published international measures relating to apparent consumption, intakes and use of folate	61

List of figures

Figure 1: Apparent per capita consumption of fruit and vegetables (including legumes), average of 3 years ended 1938–39 to 1998–99	7
Figure 2: Apparent per capita consumption of iron, average of 3 years ended 1938–39 to 1997–98	18
Figure 3: Apparent per capita consumption of total milk and milk products, converted to solids, average of 3 years ended 1938–39 to 1998–99	23
Figure 4: Apparent per capita consumption of calcium, average of 3 years ended 1938–39 to 1997–98	25
Figure 5: Apparent per capita consumption of alcohol (ethanol), 1989–90 to 2003–04	36
Figure 6: Apparent per capita consumption of sugars, average of 3 years ended 1938–39 to 1998–99	41
Figure 7: Apparent per capita consumption of folate, 1993–94 to 1997–98	60

Acknowledgments

This report was prepared by Anne Marie Thow of the Australian Institute of Health and Welfare (AIHW).

Valuable comments and assistance were received from Karen Cashel, Ingrid Coles-Rutishauser and Bonnie Fields, as referees, and internally at the AIHW from Louise Catanzariti, Mark Cooper-Stanbury, Paul Magnus, Lynelle Moon, and Kathleen O'Brien.

Abbreviations

ABS	Australian Bureau of Statistics
AFNMU	Australian Food and Nutrition Monitoring Unit
AIHW	Australian Institute of Health and Welfare
AusDiab	Australian Diabetes, Obesity and Lifestyle Study
BMI	body mass index
CATI	computer assisted telephone interviewing
DHFS	Department of Health and Family Services
DoHA	Department of Health and Ageing
EU	European Union
FAO	Food and Agriculture Organization
NDNS	National Diet and Nutrition Survey (UK)
NDSA	National Dietary Survey of Adults
NDSHS	National Drug Strategy Household Survey
NHANES	National Health and Nutrition Examination Survey (USA)
NHDD	National Health Data Dictionary
NHMRC	National Health and Medical Research Council
NHS	National Health Survey
NNS	National Nutrition Survey
NPAS	National Physical Activity Survey
OECD	Organisation for Economic Cooperation and Development
RDI	recommended daily intake
RFPS	Risk Factor Prevalence Survey
SIGNAL	Strategic Inter-Governmental Nutrition Alliance
UK	United Kingdom
USA	United States of America
WHO	World Health Organization

Symbols

g	grams
kcal	kilocalories
kJ	kilojoules
mg	milligrams
ml	millilitre
mmol	millimole
ng	nanograms
nmol/L	nanomoles per litre
µg	micrograms
µg/L	micrograms per litre
µmol/L	micromoles per litre

Summary

This report provides an overview of the status of food and nutrition data in Australia, based on existing published measures relevant to the Dietary Guidelines for Australian Adults (NHMRC 2003). The purpose of the report is to assist in the development of a national food and nutrition monitoring system in Australia through informing indicator development and identifying gaps in existing data collection. This report also provides a comparison with relevant food and nutrition measures and data from a selected number of other countries.

The report follows on from and expands on the core set of indicators reported in *Key Food and Nutrition Data for Australia 1990–1999* (Marks et al. 2001a), with measures aligned to the revised Dietary Guidelines for Australian Adults. The dietary guidelines are a key statement of Australia's policy goals and directions for supporting better nutritional outcomes for the population.

The food and nutrition data reviewed provide a status report on the nutrition of Australians. It is evident from available data relevant to the dietary guidelines that there are still important nutritional issues to be resolved in Australia. For example, more than 50% of people have reported not meeting the minimum recommendations for fruit and vegetable consumption, and data suggest a trend towards higher proportions of people being insufficiently active, and increased levels of obesity.

Although there is a large body of existing food and nutrition data pertinent to reporting against the Australian dietary guidelines, key components of these data are not collected on an ongoing basis and many are no longer recent – in particular, measures relating to dietary intakes and biomedical risk factors. There are also gaps in data availability relevant to the dietary guidelines. This lack of recent data for some areas, along with the gaps in data collection, makes it difficult to monitor changes in nutrition, and in conjunction with this, to effectively evaluate the dietary guidelines as an important policy document.

The international measures presented in this report suggest that Australian reporting of food and nutrition data has thus far been largely comparable to that in a range of similar countries. However, the measures also serve to highlight gaps in Australian data collection and suggest potential new measures that could be used to inform Australian indicator development. In addition, collating international measures has emphasised the age and non-ongoing status of much of the Australian data, as many of the countries reviewed have in place systems for collecting nutrition-related data on an ongoing basis.

The evident limitations of currently available data, in conjunction with continuing nutrition concerns, highlight the need for nationally endorsed indicators for food and nutrition in Australia to guide data collection and reporting. These indicators would be an important part of a comprehensive framework for ongoing monitoring and surveillance of Australia's food and nutrition situation.