

# Glossary

**Body mass index (BMI)** is a measure of a person's weight in relation to their height, calculated as weight in kilograms divided by height in metres squared.

**Context** is the context in which a person participates in physical activity, e.g. leisure-time, incidental, and occupational.

**Duration** is the length of time spent participating in physical activity as self-reported by the adult person.

**Energy expenditure** is an estimate of the energy costs of physical activity derived from reports, observation or indirect objective assessments of people's activity levels.

**Exercise** is a subset of physical activity and is defined as planned, structured and repetitive bodily movement done to improve or maintain one or more components of physical fitness.

**Frequency** is the number of times the adult person self-reported participating in physical activity, within a reporting period.

**Health** as defined by the World Health Organization is a state of complete physical, mental and social wellbeing, and not merely as the absence of disease or infirmity.

**Health benefit** is participation in leisure-time physical activity of 'sufficient' intensity and duration. The accrual of 150 minutes of moderate-intensity physical activity over a period of one week is thought to confer health benefit. Participation in vigorous-intensity leisure-time physical activity for 60 to 90 minutes over a period of a week will also confer health benefit.

**Incidental physical activity/unplanned physical activity** includes the forms of physical activity done at work and home, and activity in which people take part as they go about their day-to-day lives, generally using large skeletal muscle groups, for example, using stairs, domestic tasks.

**Intensity** is the self-perceived and self-reported intensity at which an adult person participated in physical activity, e.g. moderate, vigorous.

**Leisure-time physical activity** refers to sport and recreational physical activity, including a range of activities conducted specifically for enjoyment, social, competitive or fitness purposes, performed in leisure or discretionary time.

**METs (metabolic equivalents)** is a unit used to estimate the metabolic cost (oxygen consumption) of physical activity. One MET is defined as the energy expenditure for sitting quietly, which for the average adult is 1 kilocalorie body weight in  $\text{kg}^{-1} \text{hr}^{-1}$  or 3.5 ml of oxygen body weight in  $\text{kg}^{-1} \text{min}^{-1}$ . METs are used as an index of the intensity of activities.

**Moderate-intensity physical activity** is physical activity requiring 3–4 times as much energy as at rest or intensity of 3–4 METs, e.g. brisk walking.

**Physical activity** is any bodily movement produced by skeletal muscles that results in energy expenditure.

**Physical inactivity** is conceptualised in population surveys as no reported physical activity.

**Risk factor** is an exposure or characteristic that increases the rate of disease relative to those unexposed or without the characteristic.

**Sedentary** denotes people who are physically inactive, in this case survey respondents who reported no participation in walking, moderate-intensity or vigorous-intensity activity

during the previous week, resulting in an estimated energy expenditure of less than 50 kilocalories per week.

*Sufficient* (see *health benefit*)

*Type* is the specific physical activity self-reported by adults, e.g. walking, gardening or yardwork.

*Vigorous-intensity physical activity* is physical activity requiring 7–9 times as much energy as at rest or intensity of 7–9 METs, e.g. running.

# Appendix 1

## Membership of the AIHW Expert Working Group on the Measurement of Physical Activity as at September 1999

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Dr Tim Armstrong	National Centre for Monitoring Cardiovascular Disease Australian Institute of Health and Welfare
Dr Michael Booth	Centre for Advancement of Adolescent Health New Children's Hospital
Dr Wendy Brown	Research Institute for Gender & Health University of Newcastle
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Dr Chris Gore	Laboratory Standards Assistance Scheme Australian Institute of Sport
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Professor Andrew Hills	Department of Human Movement Studies Queensland University of Technology
Professor Neville Owen	School of Nutrition and Public Health Deakin University

# Appendix 2

## 1999 National Physical Activity Survey

### Introduction

Hello, are you (RESPONDENT'S NAME)? My name is....., I'm calling on behalf of the Australian Institute of Health and Welfare. We are conducting a national study on physical activity.

The research results will be important for the planning of future health and exercise programs. All that is involved is answering a few questions over the phone. The Act of Parliament setting up the Institute guarantees that your answers will be kept confidential. We don't need to know your name and no individuals will be identified or described in any reports. (If there are any questions you prefer not to answer just say so).

The survey should take NO MORE THAN 15 minutes. Can you help us with this study?

### Questions

- Have you heard or seen any messages about exercise or physical activity IN THE PAST MONTH? What is one message that you remember?
- Have you heard of the *Active Australia* campaign? What is it?
- Have you heard of the exercise and physical activity campaign 'Exercise – you only have to take it regularly not seriously'? What messages do you remember?
- In the last month, have you seen a TV advert that shows a tin man character getting up from a couch and walking around the neighbourhood? What messages do you remember?

### We would like to ask you about the physical activity you did IN THE LAST WEEK:

- IN THE LAST WEEK how many times have you walked continuously, for at least 10 minutes, for recreation/exercise or to get to or from places?
- What do you estimate was the total time that you spent walking in this way IN THE LAST WEEK?
- IN THE LAST WEEK how many times did you do any vigorous gardening or heavy work around the yard which made you breathe harder or puff and pant?
- What do you estimate was the total time that you spent doing vigorous gardening or heavy work around the yard IN THE LAST WEEK?

**The next question excludes household chores or gardening or yardwork**

- IN THE LAST WEEK, how many times did you do any vigorous physical activity which made you breathe harder or puff and pant? (e.g. jogging, cycling, aerobics, competitive tennis, etc.)
- What do you estimate was the total time that you spent doing this vigorous physical activity IN THE LAST WEEK?

**The next question excludes household chores or gardening or yardwork**

- IN THE LAST WEEK how many times did you do any other more moderate physical activity that you haven't already mentioned? (e.g. gentle swimming, social tennis, golf, etc.)
- What do you estimate was the total time that you spent doing these activities IN THE LAST WEEK?

**The next three questions are about your average WEEKLY level of activity IN THE LAST SIX MONTHS**

- On average, IN THE LAST SIX MONTHS how much time did you spend each week walking for recreation/exercise or to get to or from places? (THIS IS WALKING CONTINUOUSLY FOR AT LEAST 10 MINUTES)

**The next question excludes household chores or gardening or yardwork**

- On average, IN THE LAST SIX MONTHS how much time did you spend each week doing vigorous physical activity which made you breathe harder or puff and pant? (e.g. jogging, cycling, aerobics, competitive tennis, etc.)

**The next question excludes household chores or gardening or yardwork**

- On average, IN THE LAST SIX MONTHS how much time did you spend each week doing any other more moderate physical activity that you haven't already mentioned (e.g. gentle swimming, social tennis, golf, etc.)

**The following statements are about the amount of exercise you intend to do in the near future**

- Which one best describes how you feel at present?
  - You do NOT intend to be more active than you have been over the last week
  - You intend to be more active over the NEXT MONTH than you have been over the last week
  - You intend to become more active sometime over the NEXT SIX MONTHS than you have been over the last week
- To what extent do you agree or disagree with the following statements about physical activity and health?
  - Taking the stairs at work or generally being more active for at least 30 minutes each day is enough to improve your health
  - Half an hour of brisk walking on most days is enough to improve your health
  - To improve your health it is essential for you to do vigorous exercise for at least 20 minutes each time, 3 times a week

- Exercise doesn't have to be done all at one time – blocks of 10 minutes are okay
- Moderate exercise that increases your heart rate slightly can improve your health

**Finally a few questions to make sure we've spoken to a wide range of people**

- What is your sex?
- Could I ask your age please?
- What is your MARITAL STATUS?
- What is your approximate weight in pounds, stones, or kilograms?
- What is your approximate height in feet & inches or cms?
- How MANY people UNDER 18 reside at your home?
- How many children AGED 5 AND UNDER reside at your home?
- How many adults aged between 18 and 75 years, including yourself, live in your household?
- What is the highest level of education you have COMPLETED?
- What is your current occupation?
- What language do you USUALLY speak at home?
- What is your postcode?

# Appendix 3

Table A3.1: Percentage of people achieving 'sufficient' levels of physical activity, 1999

	18–29	30–44	45–59	60–75	All ages
<b>Over previous week</b>					
<b>'Sufficient' time</b>					
Men	73.6	55.2	49.6	61.1	59.6
Women	63.8	51.8	50.3	47.6	53.8
<b>'Sufficient' time and sessions</b>					
Men	59.1	41.9	39.0	51.1	47.1
Women	53.5	40.5	41.6	36.6	43.4
<b>Over previous 6 months</b>					
<b>'Sufficient' time</b>					
Men	82.2	60.9	55.1	65.1	65.6
Women	69.4	55.3	53.1	49.9	57.4
<b>Any intention to be more active<sup>(a)</sup></b>					
Men	75.2	65.2	50.3	38.4	59.8
Women	77.6	71.3	59.1	48.0	66.0

(a) Combined intention in the next month and in the next six months.

# Appendix 4

## Coding frame for content-analysed questions

### Question 3a: Generic message about exercise or physical activity

1. Generic physical activity message, exercise for health, keep fit
2. Running, aerobic activity, 3 sessions of 20 minutes
3. Walking, walk more
4. Cardiovascular, heart disease, National Heart Foundation message
5. Other diseases
6. Daily, five times per day
7. Be more active, do more physical activity, get out and do some
8. 30 minutes, 30 minutes per day
9. Actual tag line
10. Exercise machines, gym, slimming centres
11. Older people need exercise
12. Other physical activities, e.g. tai chi
13. Other sports
14. Television advertisements
15. Other health messages, smoking, diet
16. Life Be In It, fit for life

### Question 3b1: Recall of the *Active Australia* campaign

1. Keep fit, generic physical activity message, moving, general health
2. Television advertisements
3. *Active Australia* campaign, get Australians to do physical activity, national advice
4. 30 minutes of activity most days, 10 minute blocks
5. Specific *Active Australia* national day, Sunday, October
6. Older people, 'Rusty', get up and go
7. Sports, athletics
8. Life Be In It, 'Norms'
9. Only two to three times per week, not every day
10. Walking
11. Don't remember, unrelated, vague, not physical activity

### **Question 4a1: Recall of the 'Rusty' (tin man) message**

1. Older adults and exercise
2. Recalled features of message, tin man with tin dropping off, becomes human, oiling hip joints, rusty
3. Get up and move, get off the couch, get up and go, use it or lose it, never too old to start
4. Seize up, mobility, free movement, stiffness, arthritis, back pain
5. Walk, regular walking daily
6. 30 minutes per day, regular exercise, daily
7. Two to three times per week only is needed, only a bit needed
8. Lazy, inert, inactive (generic message)
9. Other, unrelated

### **Question 5: Recall of the Active Australia tagline 'Exercise—you only have to take it regularly, not seriously'**

1. Repeated slogan, tagline, logo
2. Fun
3. Daily, regular, 30 minutes per day, recall partial tagline 'regularly'
4. Less often, 3 sessions of 20 minutes, 3 sessions of 30 minutes, one to two times per week
5. Don't overdo it, gently, not vigorous, moderate, pace yourself, better than none, good for you
6. Walking, walk more
7. Life Be In It
8. Tin man, older people
9. Other, diet, weight watchers, cardiovascular health

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