



10,000 Steps Working Paper Series

Paper 9: National Awareness of the 10,000 Steps Program, 2009

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EXECUTIVE SUMMARY

This report details the awareness of the 10,000 Steps program across Australia. This study examined the 2009 national awareness levels and determined if demographic variables were associated with awareness.

- In 2009, it was estimated that 56% of the Australian adult population (age 18 years and older) were aware of the 10,000 Steps program.
 - An estimated 45% of men and 63% of women in Australia were aware of the program.
 - An estimated 50% of 18-34 year olds, 58% of 35-44 year olds, 61% of 45-54 year olds and 52% of individuals aged 55 years and older were aware of the program.
 - An estimated 51% of Australians with a school education, 54% with a technical education and 58% with a University education were aware of 10,000 Steps.
 - An estimated 43% of Australians earning an annual household income of less than \$30,000, 58% of those earning \$30,001 to \$50,000, 57% of those earning \$50,001 to \$100,000 and 63% of those earning more than \$100,000, were aware of the 10,000 Steps program.
 - An estimated 56% of Australians of healthy weight and 55% of overweight or obese Australians are aware of 10,000 Steps.
 - An estimated 49% of sedentary, 53% of insufficiently active and 58% of sufficiently active Australians are aware of the 10,000 Steps program.
- In 2009, national awareness of the 10,000 Steps program was found to be significantly associated with gender and annual household income.
 - **Women** in Australia were significantly more likely to be aware of the 10,000 Steps program than men.
 - Individuals earning an **annual household income of \$30,001 or greater** across Australia were significantly more likely to be aware of the 10,000 Steps program than those earning \$30,000 or less.
 - National awareness was not associated with age, level of education, BMI category or leisure time physical activity (LTPA) levels.

INTRODUCTION

Background

10,000 Steps Rockhampton was Australia's first 'whole of community' health promotion physical activity project. Funded by Queensland Health, the Rockhampton region was chosen for a two year trial of the project in 2001. During this period, the 10,000 Steps Rockhampton Project was an exemplary model of an effective multi-strategy, multi-sector physical activity project. [1] The project was successful in motivating local communities, workplaces and individuals to increase their physical activity levels. As a result of the success in Rockhampton, Queensland Health provided funding for 10,000 Steps to be developed as a sustainable state-wide and beyond initiative.

10,000 Steps now disseminates physical activity information, materials, resources and support via the interactive 10,000 Steps website (www.10000steps.org.au). Since 2004, organisations and community groups have adopted and implemented the 10,000 Steps resources across Queensland, Australia and internationally to promote physical activity and raise awareness of the associated health benefits. Individuals are also involved in the program by using the interactive online Step Log to record and monitor their physical activity levels. As of May 2010, the 10,000 Steps program has over 124,500 individual members and 4,757 Providers (organisations and community groups) registered with the 10,000 Steps website.

Awareness of the 10,000 Steps program across Queensland has been monitored annually since 2005. The results have shown a notable increase in the awareness of the 10,000 Steps program in the state of Queensland from 33.5% in 2005 to 64.4% in 2009. [2] It has also been found that certain sub-groups of the Queensland population are more likely to be aware of the program than others. [2] As dissemination of the program is expanding beyond Queensland, it is appropriate to assess awareness of the 10,000 Steps program at a national level. The current report details the study of 10,000 Steps awareness throughout Australia in 2009.

Purpose of Study

The purpose of this study was to examine the awareness of the 10,000 Steps program throughout Australia in 2009. In addition, the study determined if demographic variables (i.e. gender, age, level of education, annual household income, BMI category and LTPA levels) were associated with national program awareness.

Survey Method

The Australian Health and Social Science (AHSS) study was initiated and funded by the Institute for Health and Social Science Research at CQUniversity Australia. It provides both university researchers and academics with access to a national random sample of participants willing to complete web-based surveys for research purposes. The AHSS online surveys are used to assess Australian residents on key issues, such as physiological and psychological well being, nutrition, activity levels, behavioural risk factors, and social and economic well being. A section of the 2009 AHSS online survey was dedicated to investigate awareness of the 10,000 Steps program.

The 2009 AHSS online survey was administered using SSI Web V6.6 online survey software by the Population Research Laboratory at CQUniversity, from October 1st 2009 until October 26th 2009. A random sample of Australian adults living in each of the nation's states and territories comprised the target population for this study. All participants were adults, aged 18 years or older, recruited randomly via computer assisted telephone interviewing (CATI). The survey received ethical clearance from the Human Research Ethics Committee at CQUniversity Australia.

Data Quality

Response Rate

The response rate calculation follows the recommended standard definitions of response rates based on the American Association for Public Opinion Research, Standard Definitions. [3] The response rate is a calculated percentage representing the number of people participating in the survey either with a completed or partially completed survey divided by the people selected in the sample.

RR6 is the maximum response rate. The calculations for RR6 are shown below.

$$RR6 = \frac{\text{Complete Surveys} + \text{Partial Surveys}}{(\text{Complete} + \text{Partial}) + (\text{Refusal} + \text{Non Contact} + \text{Other})}$$
$$RR6 = \frac{1244 + 8}{(1244 + 8) + 14 + 23 + 360}$$

The RR6 Response Rate for the 2009 AHSS online survey was 76%.

Estimated Sampling Error

The sampling error is a measure of the validity of the descriptive statistics that are observed in a sample. The estimated sampling error, at the 95% confidence level, for the AHSS national sample of 1244 is estimated to be accurate within plus or minus 2.8 percentage points, 19 times out of 20.

Data Treatment

10,000 Steps national awareness in 2009 was analysed by gender, age, level of education, annual household income, body mass index (BMI) category and leisure time physical activity (LTPA).

Leisure Time Physical Activity Levels

Leisure time physical activity data was collected using the Active Australia Survey instrument. [4] Following the Active Australia guidelines levels of physical activity were categorized as follows:

- 1) Sedentary (Reported no walking, moderate- or vigorous-intensity activity in the week prior to the survey);
- 2) Insufficient Activity (Reported less than 150 minutes of physical activity or reported more than 150 minutes of activity but in less than five sessions in the week prior);
- 3) Sufficient Activity (Reported a minimum of 150 minutes of activity conducted in five or more sessions in the week prior).

Statistical Analyses

Prevalence estimates are presented as a percentage of the population. Logistical regression was used to describe the associations between awareness and the selected demographic measures assessed in the study. The association is presented as an odds ratio in comparison to a reference group and indicates the increased or decreased likelihood of a sub-group in the population to perform a specific behaviour. For example, a significant positive odds ratio indicates that the sub-group is more likely to perform the specified behaviour when compared to the reference group. A significant negative odds ratio indicates that the sub-group is less likely to perform the specified behaviour than the reference group. All tests were performed at an alpha level of 0.05.

RESULTS

The Sample

Of the national sample, 68.3% were aged 45 years or older and around 68% of the respondents earned an annual household income greater than \$50,000. Self report data showed that 58.8% of the participants were overweight or obese while 60% of the sample was sufficiently active for health benefits. Further demographics of the sample are presented in Table 1 (see Appendix).

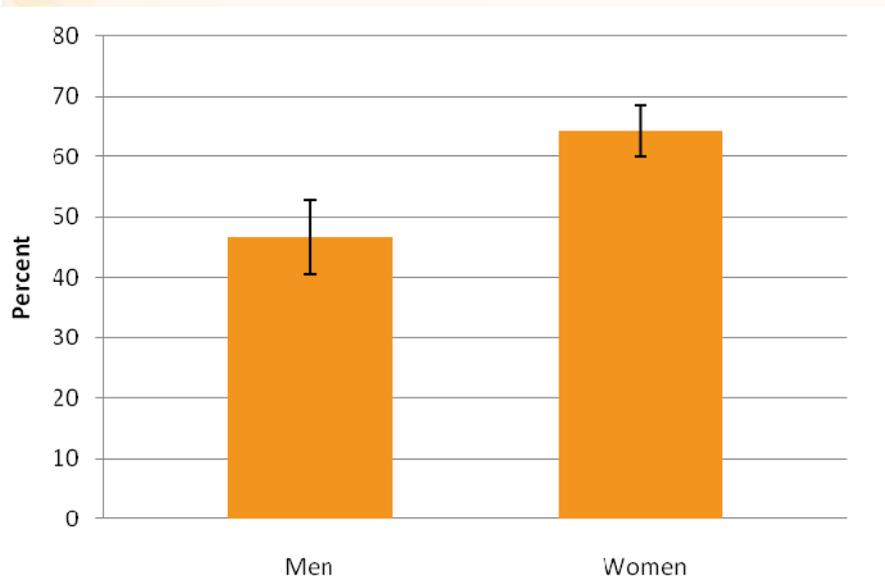
National Awareness of the 10,000 Steps Program 2009

National awareness of the 10,000 Steps program was determined through the following research question; 'Have you heard of the Ten Thousand (10,000) Steps program?' Across the total sample of Australians, 55.6% of the respondents were aware of the 10,000 Steps program. The prevalence of awareness across gender, age, level of education, BMI category and LTPA levels is shown in Table 2 (see Appendix). To determine if participant characteristics influenced awareness, crude and adjusted odds ratios were calculated. The results of the logistical regression analysis investigating the associations between demographic variables and awareness are also presented in Table 2. The crude odds ratios revealed significant associations between awareness and gender, age group and annual household income. When adjusting for all demographic variables in the final model, significant associations remained for gender and household income. Results are discussed in the following sections.

Gender

A higher percentage of women (63.3%) were aware of the 10,000 Steps program than men (45.1%; Figure 1). The logistic regression analysis revealed that women were significantly more likely to be aware of 10,000 Steps than men.

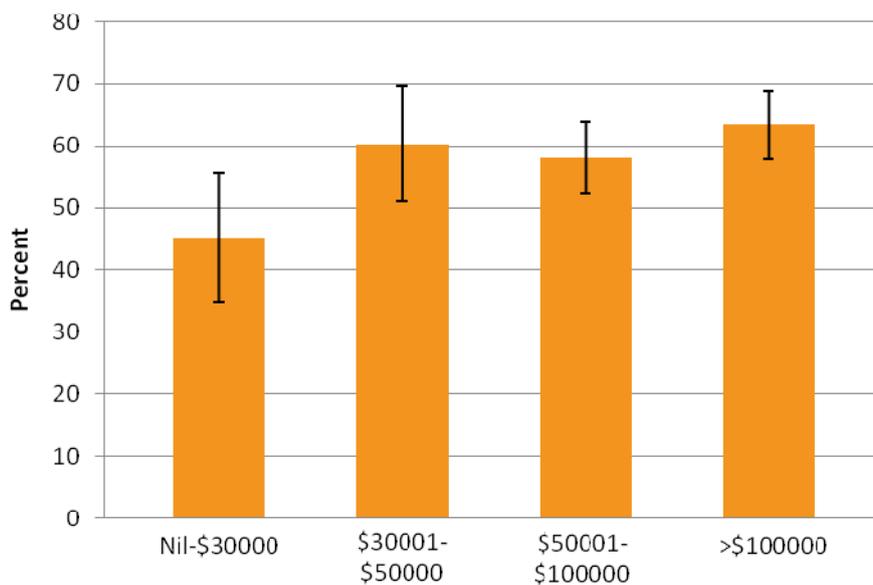
Figure 1. Percentage of respondents aware of 10,000 Steps by gender in Australia.



Annual Household Income

Participants with an annual household income of over \$100,000 had the highest percentage awareness of the 10,000 Steps program (63.1%). This was followed by participants earning \$30,001 - \$50,000 (58.2%) and those earning \$50,001 - \$100,000 (57.0%). Participants earning \$30,000 or less had the lowest levels of awareness at 43.2% (Figure 2). Adjusted odds ratios revealed that those earning a household income of \$30,001 - \$50,000, \$50,001 - \$100,000 and greater than \$100,000 were significantly more likely to be aware of 10,000 Steps than those earning \$30,000 or less.

Figure 2. Percentage of respondents aware of 10,000 Steps by household income in Australia.



Age, Level of Education, BMI Category and LTPA Levels

Age, level of education, BMI Category and LTPA levels were not found to be associated with awareness in the final logistic regression model.

CONCLUSIONS AND RECOMMENDATIONS

With the continued dissemination of the 10,000 Steps program across Australia, it is important to investigate and monitor the awareness of the program in the general population. Currently, almost 56% of Australian residents are aware of the 10,000 Steps program.

In 2009, national awareness of 10,000 Steps was found to be associated with Australian residents' gender and annual household income. These findings indicate that certain demographic sub-groups of the population are more likely to be aware of 10,000 Steps than others. Australian women and those earning more than \$30,001 in annual household income were more likely to be aware of the 10,000 Steps program than their respective reference groups in Australia.

It is unclear why certain sub-groups of the population are more likely to be aware of the 10,000 Steps program. However, the promotion of specific 10,000 Steps strategies, such as the 10,000 Steps Challenge for Workplaces, may contribute to the increased awareness observed in those with higher annual income. Individuals from this sub-group

may find 10,000 Steps resources more easily accessible and affordable as the program is predominantly internet-based.

The higher levels of awareness observed in women shows that 10,000 Steps has been successful at reaching one of the least physically active sub-groups in the population. Both Queensland and national data show that women are more likely to be sedentary than the rest of the population and/or less likely to participate in physical activity. [5, 6] The nature of the 10,000 Steps program may be more appealing to women, as both this program and other pedometer based physical activity promotion programs have reported higher levels of awareness and participation in this sub-group. [7-9] Therefore, the 10,000 Steps program has been successfully promoted to this less physically active target group.

Overall, this national awareness data shows that 10,000 Steps has been successfully disseminated and promoted across Australia. This provides further evidence that the internet has been a valuable tool for disseminating the physical activity program to individuals, organisations and community groups. [7] The sustained dissemination and promotion of the program across the nation should continue to raise awareness of the 10,000 Steps program across Australia. For the future development of 10,000 Steps and to therefore increase physical activity participation, it is important that specific 10,000 Steps strategies and promotional activities are developed to reach those individuals who are least likely to be aware of the program.

Future Recommendations

To ensure that national awareness of the 10,000 Steps program increases in the future, further promotion and dissemination of the 10,000 Steps program is needed on a national scale. From the data, the following sub-groups have been identified as those which should be targeted: males, individuals aged 18-34 years and 55 years and older, individuals with less than \$30,000 annual household income and individuals with a low level of education. These groups are less likely to be aware of the 10,000 Steps program when compared with other demographic groups.

Continued examination of the awareness of 10,000 Steps across Australia should be conducted to monitor the dissemination of the project and to enable researchers to identify areas and target groups toward which further promotion is required.

APPENDIX: TABLES

Table 1. Demographic characteristics of the total national sample of participants (n=1244).

Characteristic	n	%	Valid %
Gender			
Male	513	41.0	41.2
Female	732	58.5	58.8
Age Group			
18-34 years	156	10.8	10.9
35-44 years	297	20.7	20.8
45-54 years	396	27.6	27.7
55-100 years	581	40.5	40.6
Missing	11	0.9	
Highest Level of Education			
School	250	20.0	20.1
Technical	337	26.9	27.1
University	656	52.4	52.8
Missing	9	0.7	
Household Income (per annum)			
Nil-\$30 000	183	14.6	16.2
\$30 001-\$50 000	180	14.4	15.9
\$50 001-\$100 000	448	35.8	39.6
>\$100 000	320	25.6	28.3
Missing	121	9.7	
BMI Category			
Healthy weight	509	40.7	41.2
Overweight or Obese	726	58.0	58.8
Missing	17	1.4	
LTPA Levels			
Sedentary	110	8.8	8.8
Insufficient Activity	388	31.0	31.2
Sufficient Activity	747	59.7	60.0
Missing	7	0.6	

Table 2. Crude and adjusted odds ratios for national awareness by demographic variables.

Variable	n	% Aware	Crude OR	95% CI	Adjusted^a OR^b	95% CI
Gender						
Male	212	45.1	1.00	Reference	1.00	Reference
Female	402	63.3	2.10	1.65-2.68	2.34	1.78-3.06
Age Group						
18-34 years	65	50.4	1.00	Reference	1.00	Reference
35-44 years	131	58.0	1.36	0.88-2.10	1.15	0.71-1.84
45-54 years	191	61.4	1.57	1.04-2.37	1.50	0.95-2.37
55-100 years	226	51.8	1.06	0.72-1.57	1.09	0.71-1.68
Highest Level of Education						
School	113	50.7	1.00	Reference	1.00	Reference
Technical	159	54.1	1.15	0.81-1.63	1.16	0.79-1.71
University	340	58.0	1.35	0.99-1.83	1.26	1.78-3.04
Household Income						
Nil-\$30 000	70	43.2	1.00	Reference	1.00	Reference
\$30 001-\$50 000	92	58.2	1.83	1.18-2.85	1.86	1.18-2.94
\$50 001-\$100 000	228	57.0	1.74	1.21-2.52	1.71	1.16-2.52
>\$100 000	183	63.1	2.25	1.52-3.33	2.11	1.38-3.22
BMI Category						
Healthy weight	248	55.7	1.00	Reference	1.00	Reference
Overweight or Obese	361	55.4	0.99	0.77-1.26	1.09	0.83-1.43
LTPA						
Sedentary	47	48.5	1.00	Reference	1.00	Reference
Insufficient Activity	177	52.7	1.18	0.75-1.86	1.13	0.69-1.86
Sufficient Activity	390	58.0	1.47	0.96-2.25	1.43	0.90-2.31

^a Odds ratios adjusted for all variables in the table.

^b n= 500

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