

# Sport and Recreation Profile: Aerobics

Findings from the 2007/08  
Active New Zealand Survey



# INTRODUCTION

## Content

This sport and recreation profile presents information about participation in aerobics among New Zealand adults aged 16 years and over. It is compiled from information collected through the 2007/08 Active NZ Survey and includes:

- participation levels;
- profile of participants;
- participation patterns; and
- volunteering levels.

## Methodology

### Sample

A total of 4,443 adults aged 16 years and over participated in the 2007/08 Active NZ Survey. Among the participants, 365 (65 men, 300 women) reported participating in aerobics at least once during the 12 months preceding the interview. The 4,443 interviews (which were completed over a 12-month period beginning in March 2007) were stratified by month and by the 17 regional sports trust catchment areas.

### The Survey

The Active NZ Survey (an interviewer-administered, face-to-face self-report survey) consisted of two data collection tools:

1. a sport and recreation survey; and
2. a seven-day physical activity recall diary.

The sport and recreation survey was used to collect information about participation levels in various sport and recreation activities. Participants reported the sport and recreation activities they participated in over three different timeframes: during the 12 months, four weeks and seven days preceding the interview. Participants reported a range of other sport and recreation information including where they participated in activities, their participation in volunteering, instruction to improve performance and involvement in clubs and centres.

The seven-day physical activity recall diary assessed the frequency, intensity and duration of sport and recreation activities participated in during the seven days preceding the interview. The following information was collected for each day of the previous week:

1. the specific activities participated in (e.g. aerobics);
2. the day on which the activity was undertaken (e.g. did aerobics on Monday and Thursday);
3. the total time spent participating in each specific sport and recreation activity (e.g. 60 minutes of aerobics on Monday);
4. the amount of time spent at a moderate intensity (e.g. of the 60 minutes of aerobics on Monday, 20 minutes was spent at a moderate intensity); and
5. the amount of time spent at a vigorous intensity (e.g. of the 60 minutes of aerobics on Monday, 25 minutes was spent at a vigorous intensity).

The information from the diary was used to determine the time spent and the intensity at which adults participated in aerobics during any one week.

### Ethnic Groupings

In the 2007/08 Active NZ Survey, participants were able to identify with multiple ethnicities. Consequently, the same person could be represented in different ethnic groups (e.g. Māori and NZ European). Therefore, when the percentages for each ethnic group are summed they do not equal 100 percent. Ethnic-specific findings should only be compared with estimates for the total New Zealand population as comparisons between ethnic groups (e.g. Māori versus Pacific) are not valid.

### Socioeconomic Position

The NZiDep tool was used to measure the socioeconomic position of participants. The tool consists of eight questions which assess different domains of socioeconomic status. Based on the number of deprivation indicators reported, participants were grouped into one of five groups ranging from the least (Quintile 1) to the most (Quintile 5) disadvantaged socioeconomic group. The five groups were:

*Quintile 1* – no deprivation characteristics;

*Quintile 2* – one deprivation characteristic was reported;

*Quintile 3* – two deprivation characteristics were reported;

*Quintile 4* – three or four deprivation characteristics were reported; and

*Quintile 5* – five or more deprivation characteristics were reported.

Further information about the Active NZ Survey methodology is available at [www.sparc.org.nz/activenzsurvey](http://www.sparc.org.nz/activenzsurvey).

## Information Reported

All findings relate to the New Zealand adult population aged 16 years and over. They are based on responses from at least 100 participants and have a relative standard error of less than 25 percent unless stated otherwise. All estimates have been weighted to correct for differences between the sample population and the general New Zealand population. Percent estimates (e.g. 50%) with a 95 percent confidence interval (e.g. 95% CI: 45-55) have also been age-standardised to the 2006 New Zealand adult population. Estimates without a 95 percent confidence interval represent proportions within the sport-specific population (i.e. adults who participated in the activity), and have not been age-standardised.

Confidence intervals have been used to indicate if significant differences exist between different groups (e.g. men versus women) in the population. Findings are generally considered significantly different if there is no overlap between the confidence intervals of the percentage estimates being compared.

The Active NZ Survey is a nationally representative survey of all New Zealand adults. The findings in this profile are not directly comparable with other sources of information about aerobics. This is because methodological differences (e.g. the way data is collected, the definitions used) contribute to differences in findings between different data sources.

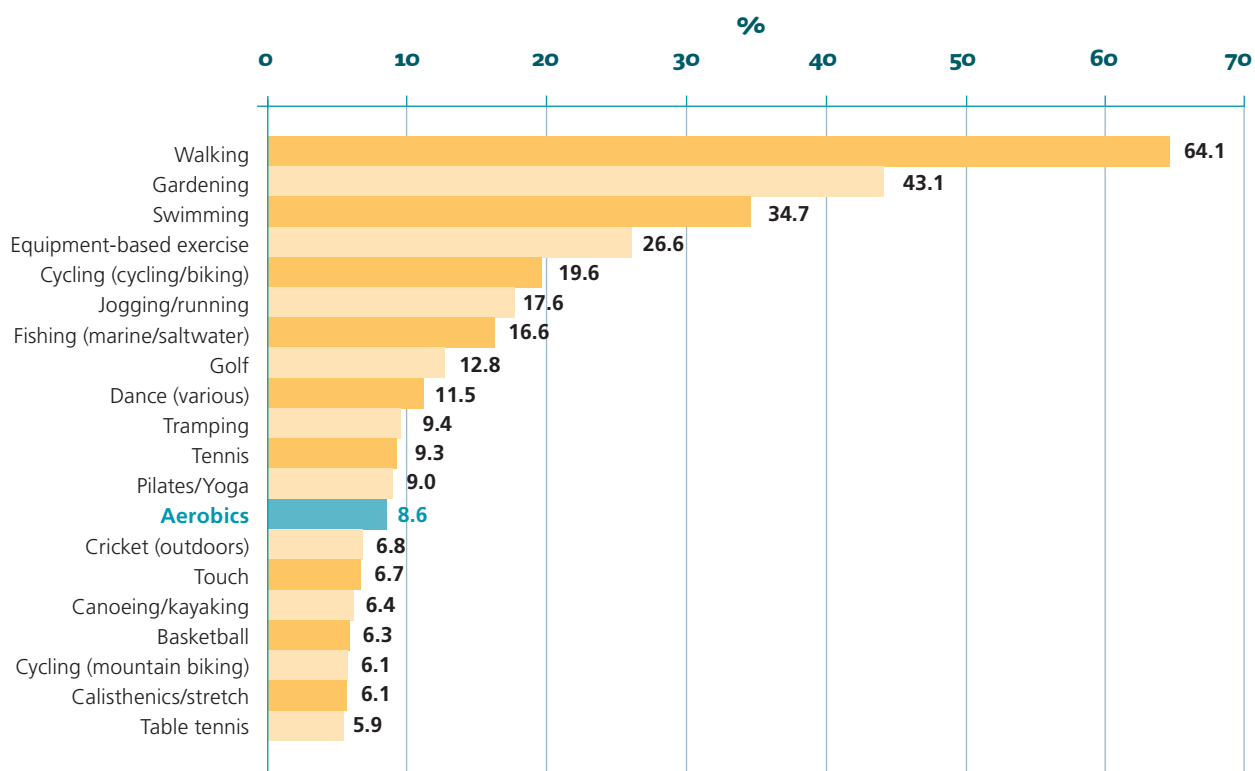
# FINDINGS

## Participation Levels

### 2007/08 Participation Levels

Over 12 months, 8.6 percent (95% CI: 7.2-9.9) of all New Zealand adults aged 16 years and over (277,865 people) had participated in aerobics at least once. Figure 1 presents 20 sport and recreation activities with the highest participation levels among all New Zealand adults<sup>1</sup>. Aerobics had the 13th highest participation rate among various sport and recreation activities.

Figure 1: Sport and recreation activities with the highest participation levels



<sup>1</sup> Figure 1 is based on information presented in the document titled 'Sport and Recreation Participation Levels' which is available at [www.sparc.org.nz/activenzsurvey](http://www.sparc.org.nz/activenzsurvey).

## Profile of Participants

### Demographic Profile

Table 1 presents demographic information about aerobic participation. For example, among all women in New Zealand 13.1 percent participated in aerobics at least once over 12 months.

Table 1 shows that adults aged 50 years and over (compared with adults in all other age groups) were significantly less likely to have participated in aerobics. Aerobics participation levels did not differ significantly by ethnicity (when compared with all New Zealand adults) or socioeconomic position.

Table 1: Proportion of all New Zealand adults (16 years and over) who participated in aerobics at least once over 12 months

	Percentage (95% CI)	Population <sup>2</sup>
Total Population	8.6 (7.2–9.9)	277,865
<b>Gender</b>		
Men	3.8 (1.4–9.0) <sup>3</sup>	59,911
Women	13.1 (8.3–17.8)	217,954
<b>Age Group</b>		
16–24 years	13.3 (9.5–17.1)	72,837
25–34 years	14.2 (10.8–17.6)	77,247
35–49 years	8.6 (6.4–10.8)	81,294
≥ 50 years	3.8 (2.5–5.0)	46,487
<b>Ethnic Group</b>		
Māori	8.6 (5.8–11.3)	39,107
Pacific	6.8 (3.0–10.7)	14,140
NZ European	9.2 (7.6–10.8)	194,997
Asian	5.3 (2.2–8.3)	22,109
<b>Socioeconomic Position</b>		
Quintile 1	8.8 (7.1–10.4)	163,790
Quintile 2	9.7 (6.9–12.5)	66,160
Quintile 3	7.9 (4.4–11.5)	25,543
Quintile 4	5.2 (2.1–8.3) <sup>3</sup>	15,905
Quintile 5	5.9 (1.2–10.5) <sup>3</sup>	6,467

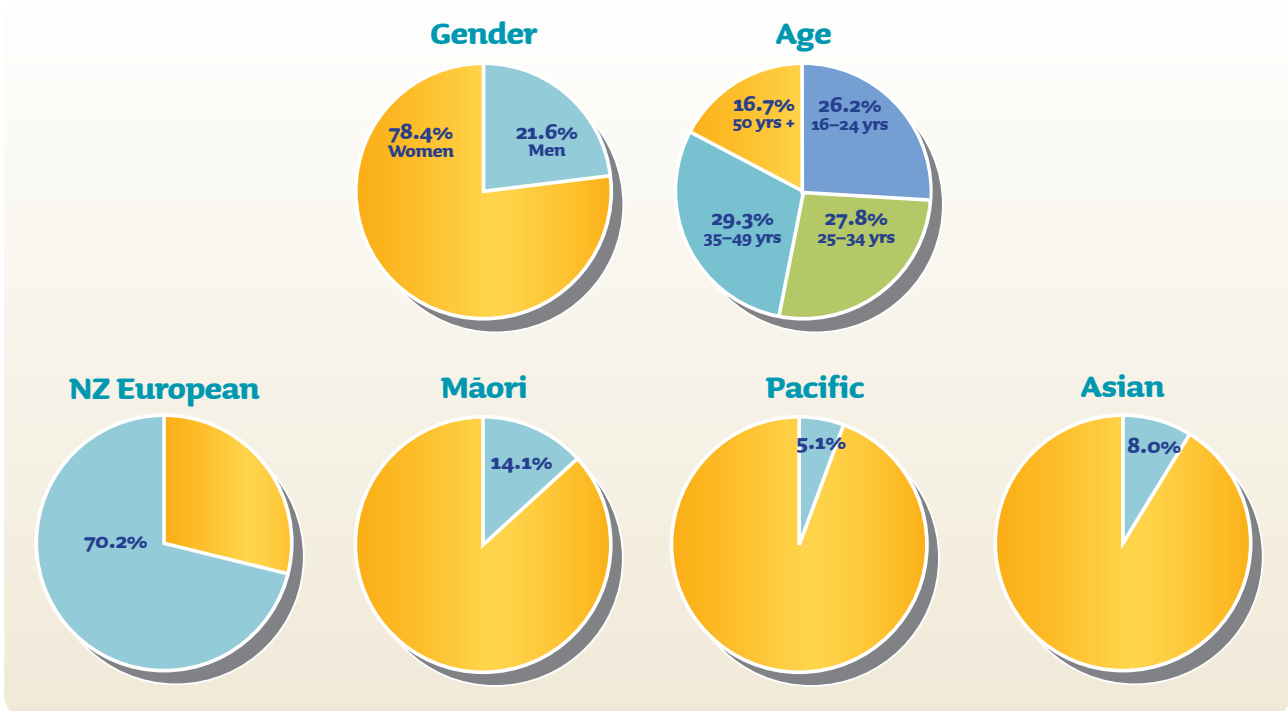
<sup>2</sup> The column indicates the number of New Zealand adults who participated in aerobics. For example, 217,954 women participated in aerobics at least once over 12 months.

<sup>3</sup> Finding associated with a related standard error greater than 25 percent and based on responses from less than 100 participants.

Figure 2 presents information about people who participated in aerobics at least once over 12 months. For example, among adults who participated in aerobics 21.6 percent were men and 78.4 percent were women. A large proportion of adults who participated in aerobics were:

- women;
- aged 16 to 49 years; and
- self-identified as New Zealand European or Māori.

Figure 2: Demographic profile of adults who participated in aerobics



### Participation in Other Sport and Recreation Activities

On average, adults who participated in aerobics at least once over 12 months took part in 8.1 different sport and recreation activities over 12 months (the national average was 4.6). Irrespective of gender, adults who participated in aerobics also participated in walking, swimming, equipment-based exercise, jogging/running and cycling. In addition, men who participated in aerobics also participated in golf, rugby union, saltwater fishing and touch while women participated in gardening, pilates/yoga and tennis.

### Physical Activity Levels

As part of New Zealand's physical activity guidelines adults are recommended to participate in at least 30 minutes of moderate-intensity<sup>4</sup> physical activity on most, if not on all, days of the week. To meet this guideline, participation in at least 30 minutes of moderate-intensity physical activity on five or more days of the week was required.

When compared to the proportion of all New Zealand adults who achieved this guideline (48.2%; 95% CI: 46.3-50.1), a greater proportion of adults who participated in aerobics achieved the guideline (63.0%; 95% CI: 57.6-68.4).

<sup>4</sup> Moderate-intensity physical activity was defined as activity that causes a slight, but noticeable, increase in breathing and heart rate.

## Participation Patterns

### Organised Competition and Event Participation

Among adults who participated in aerobics at least once over 12 months, 5.7 percent<sup>5</sup> (9,286 people) participated in an organised aerobics competition or event.

### Instruction

Among adults who did aerobics at least once over 12 months, 57.0 percent (158,335 people) had received instruction from a coach, instructor, trainer or teacher to improve their aerobics performance.

### Participation Setting

During any one month, 4.4 percent (95% CI: 3.4-5.3) of all New Zealand adults (141,028 people) participated in aerobics at least once. Among these adults, the most common locations<sup>6</sup> for participating in aerobics were 'at an indoor sports facility' (61.9%), 'at home or someone else's home' (14.1 %) and 'indoors at some other location not mainly used for aerobics' (7.7%).

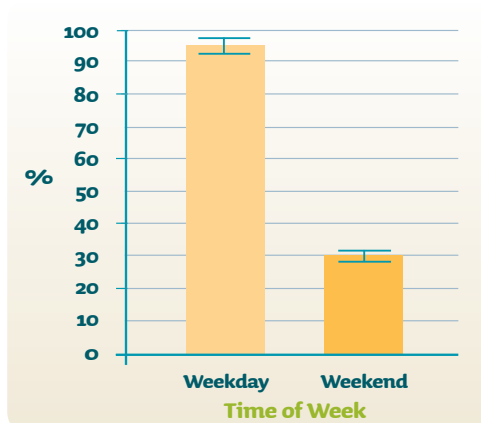
People can belong to different types of clubs or centres in order to participate in sport and recreation. The clubs/centres examined in this survey included: sport and physical activity clubs, social clubs, fitness centres and some other type of club/centre. Among adults who participated in aerobics during any one month:

- 65.0 percent (91,607 people) belonged to any type of club or centre in order to participate in aerobics;
- 59.0 percent (83,230 people) belonged to a gym or fitness club in order to participate in aerobics; and
- 8.1 percent<sup>5</sup> (11,473 people) belonged to a sports or physical activity club in order to participate in aerobics.

### Time Spent Participating

During any one week, 2.9 percent (95% CI: 2.1-3.6) of all New Zealand adults (92,735 people) participated in aerobics at least once. On average, adults did aerobics on three days out of seven, for an average of 56 minutes on any one day. The average time spent doing aerobics per week was 150 minutes. Adults were significantly more likely to participate in aerobics on weekdays than during the weekend (Figure 3).

Figure 3: Adult participation in aerobics, by time of week



5 Finding associated with a relative standard error greater than 25 percent.

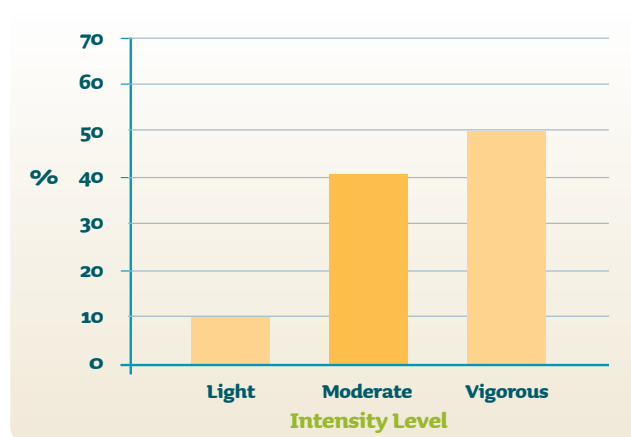
6 Adults who reported participating in aerobics during the four weeks preceding the interview also reported the locations where they participated in the last four weeks. Participants were asked to identify a location from a list of nine general locations (e.g. at indoor sports facility).

## Intensity of Participation

Individuals participate in sport and recreation activities at varying levels of intensity (i.e. light intensity, moderate intensity<sup>7</sup>, vigorous intensity<sup>8</sup>). During any one week, 49.8 percent (95% CI: 47.8-51.7) of New Zealand adults who did aerobics (47,375 people) achieved more than 2.5 hours of moderate-to-vigorous-intensity physical activity through participation in aerobics alone.

Figure 4 displays the proportion of total aerobics time per week that was undertaken at each level of intensity. During any one week 40.9 percent of aerobics time was spent at moderate intensity and 49.2 percent was spent at vigorous intensity. The remaining 9.9 percent of the time was spent participating at light intensity.

Figure 4: Adult participation in aerobics, by intensity level



## Volunteering Levels

Among all New Zealand adults, 0.3 percent (95% CI 0.2-0.4; 10,667 people) volunteered for aerobics. Among adults who participated in aerobics at least once over 12 months, 38.4 percent (106,612 people) volunteered for at least one sport or recreation activity and 1.8 percent<sup>9</sup> (5,103 people) volunteered for aerobics.

7 Moderate-intensity physical activity was defined as activity that causes a slight, but noticeable, increase in breathing and heart rate.

8 Vigorous-intensity physical activity was defined as activity that makes you 'huff or puff'.

9 Finding associated with a relative standard error greater than 25 percent.



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