

ACTIVE
NZ SURVEY

Te Rangahau Korikori o Aotearoa

Sport and Recreation Profile: Equipment-based Exercise

Findings from the 2007/08
Active New Zealand Survey



INTRODUCTION

Content

This sport and recreation profile presents information about participation in equipment-based exercise 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

Definition of Equipment-based Exercise

Equipment-based exercise refers to participants reporting the use of exercise equipment such as home gyms, exercycles, treadmills, rowing machines and/or weights to exercise at home and/or at a gym/fitness centre.

Sample

A total of 4,443 adults aged 16 years and over participated in the 2007/08 Active NZ Survey. Among the participants, 1,045 (445 men, 600 women) reported participating in equipment-based exercise 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. equipment-based exercise);
2. the day on which the activity was undertaken (e.g. did equipment-based exercise on Monday and Thursday);
3. the total time spent participating in each specific sport and recreation activity (e.g. 60 minutes spent engaged in equipment-based exercise on Monday);
4. the amount of time spent at a moderate intensity (e.g. of the 60 minutes spent on equipment-based exercise 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 spent on equipment-based exercise 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 equipment-based exercise 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.

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 equipment-based exercise. This is because methodological differences (e.g. the way data is collected, the definitions used) contribute to differences in findings between different data sources.

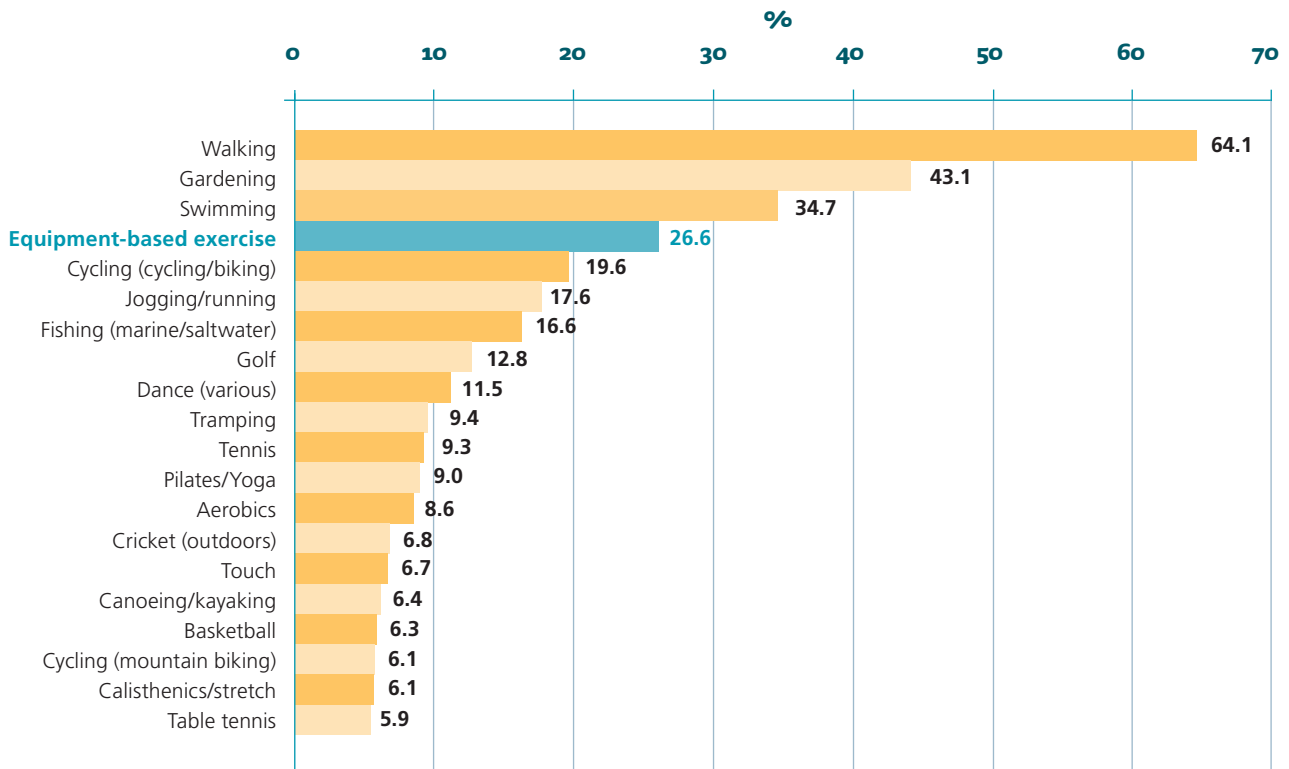
FINDINGS

Participation Levels

2007/08 Participation Levels

Over 12 months, 26.6 percent (95% CI: 24.8-28.4) of all New Zealand adults (868,271 people) had participated in equipment-based exercise at least once. Figure 1 presents 20 sport and recreation activities with the highest participation levels among all New Zealand adults¹. Equipment-based exercise had the fourth highest participation rate among various sport and recreation activities.

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



¹ 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.

Profile of Participants

Demographic Profile

Table 1 presents demographic information about equipment-based exercise participation. For example, among all men in New Zealand 26.3 percent participated in equipment-based exercise at least once over 12 months.

Table 1 shows that adults aged 50 years and over (compared with adults from all other age groups) and adults from the two most disadvantaged groups, Quintiles 4 and 5 (compared to the least disadvantaged group, Quintile 1) were significantly less likely to have participated in equipment-based exercise. Participation levels did not differ significantly by ethnicity (when compared with all New Zealand adults) or gender.

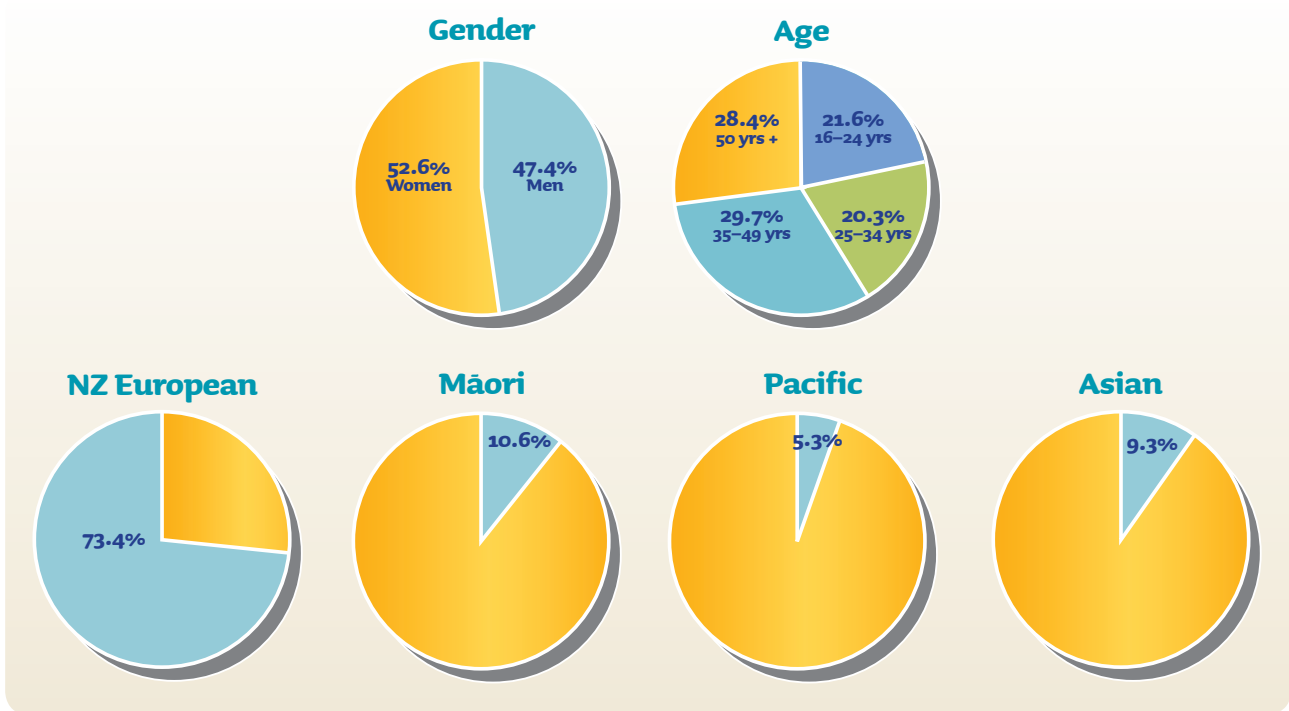
Table 1: Proportion of all New Zealand adults (16 years and over) who participated in equipment-based exercise at least once over 12 months

	Percentage (95% CI)	Population ²
Total Population	26.6 (24.8–28.4)	868,271
Gender		
Men	26.3 (21.5–31.0)	411,763
Women	27.1 (22.9–31.3)	456,508
Age Group		
16–24 years	34.1 (29.5–38.7)	187,374
25–34 years	32.4 (28.4–36.5)	176,642
35–49 years	27.3 (24.2–30.3)	257,879
≥ 50 years	19.9 (17.5–22.4)	246,376
Ethnic Group		
Māori	20.2 (16.6–23.8)	91,713
Pacific	21.7 (16.0–27.3)	45,962
NZ European	29.0 (26.8–31.2)	637,144
Asian	31.2 (25.9–36.5)	80,398
Socioeconomic Position		
Quintile 1	28.4 (26.1–30.6)	560,461
Quintile 2	25.7 (22.0–29.3)	170,408
Quintile 3	23.7 (18.7–28.7)	69,078
Quintile 4	17.8 (12.8–22.7)	47,727
Quintile 5	16.5 (9.7–23.3)	20,598

² The column indicates the number of New Zealand adults who participated in equipment-based exercise. For example, 411,763 men participated in equipment-based exercise at least once over 12 months.

Figure 2 presents information about people who participated in equipment-based exercise at least once over 12 months. For example, among adults who participated in equipment-based exercise 47.4 percent were men and 52.6 percent were women. A large proportion of adults who participated in equipment-based exercise self-identified as New Zealand European or Māori.

Figure 2: Demographic profile of adults who participated in equipment-based exercise



Participation in Other Sport and Recreation Activities

On average, adults who did equipment-based exercise at least once over 12 months took part in 6.5 different sport and recreation activities over 12 months (the national average was 4.6). Irrespective of gender, adults who participated in equipment-based exercise also participated in walking, gardening, swimming, jogging/running and cycling. In addition, men also participated in saltwater fishing and golf while women also participated in aerobics and pilates/yoga.

Physical Activity Levels

As part of New Zealand's physical activity guidelines adults are recommended to participate in at least 30 minutes of moderate-intensity³ 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 higher proportion of adults who participated in equipment-based exercise achieved the guideline (55.8%; 95% CI: 52.3-59.4).

³ Moderate-intensity physical activity was defined as activity that causes a slight, but noticeable, increase in breathing and heart rate.

Participation Patterns

Instruction

Among adults who participated in equipment-based exercise at least once over 12 months, 29.0 percent (251,551 people) received instruction from a coach, instructor, trainer or teacher to help improve their equipment-based exercise performance.

Participation Setting

During any one month, 19.9 percent (95% CI: 18.1-21.6; 646,852) of all New Zealand adults participated in equipment-based exercise at least once. Among these adults, the most common locations⁴ for participating in equipment-based exercise were 'at home or someone else's home' (63.8%) and 'at an indoor sports facility' (39.6%).

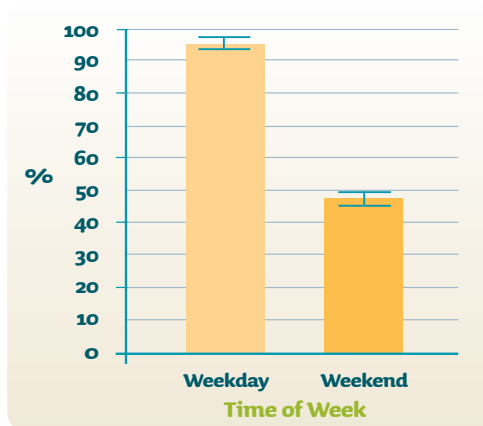
People can belong to different types of clubs or centres in order to participate in sport and recreation. The clubs/centres examined in this survey included: sport and physical activity clubs, social clubs, fitness centres and some other type of club/centre. Among adults who participated in equipment-based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

- 27.6 percent (178,759 people) belonged to any type of club or centre in order to participate in equipment-based exercise; and
- 26.8 percent (173,543 people) were members of a gym/fitness club in order to participate in equipment-based exercise.

Time Spent Participating

During any one week, 14.3 percent (95% CI: 12.7-15.9) of all New Zealand adults (464,508 people) participated in equipment-based exercise at least once. On average, adults did equipment-based exercise on four days out of seven, for an average of 43 minutes on any one day. The average time spent on equipment-based exercise per week was 145 minutes. Adults were significantly more likely to get equipment-based exercise on weekdays compared with weekend days (Figure 3).

Figure 3: Adult participation in equipment-based exercise, by time of week



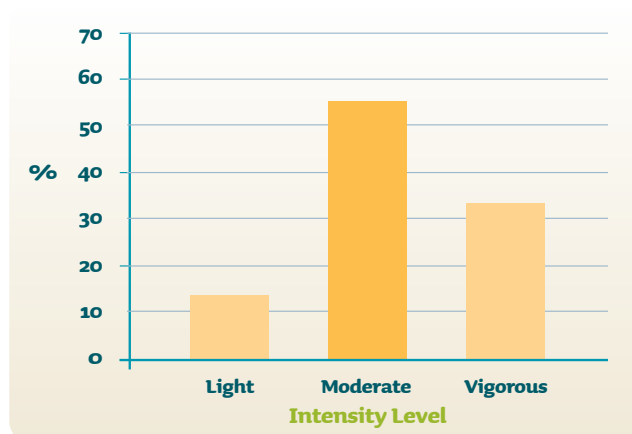
⁴ Adults who reported participating in equipment-based exercise during the four weeks preceding the interview also reported the locations where they participated in the last four weeks. Participants were asked to identify a location from a list of nine general locations (e.g. at indoor sports facility).

Intensity of Participation

Individuals participate in sport and recreation activities at varying levels of intensity (i.e. light intensity, moderate intensity⁵, vigorous intensity⁶). During any one week, 37.9 percent (95% CI: 36.0-39.8) of New Zealand adults who participated in equipment-based exercise (181,669 people) achieved more than 2.5 hours of moderate-to-vigorous-intensity physical activity through participation in equipment-based exercise alone.

Figure 4 displays the proportion of total equipment-based exercise time per week that was undertaken at each level of intensity. During any one week, 54.0 percent of equipment-based exercise time was spent at moderate intensity and 32.8 percent was spent at vigorous intensity. The remaining 13.2 percent of the time was spent participating at light intensity.

Figure 4: Adult participation in equipment-based exercise, by intensity level



Volunteering Levels

Among all New Zealand adults, 0.3 percent (95% CI: 0.2-0.5; 11,079 people) volunteered for equipment-based exercise at least once over 12 months. Among adults who participated in equipment-based exercise at least once over 12 months, 40.9 percent (354,919 people) volunteered in at least one sport or recreation activity and 1.0 percent (8,800 people) volunteered for equipment-based exercise.

⁵ Moderate-intensity physical activity was defined as activity that causes a slight, but noticeable, increase in breathing and heart rate.

⁶ Vigorous-intensity physical activity was defined as activity that makes you 'huff or puff'.



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