

# Sport and Recreation Profile: Cycling

Findings from the 2007/08  
Active New Zealand Survey



# INTRODUCTION

## Content

This sport and recreation profile presents information about participation in cycling 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

### Definitions

In the 2007/08 Active NZ Survey participants reported whether they had participated in cycling/biking or mountain biking as separate sport and recreational activities. Cycling/biking in this profile will be referred to as road cycling. This profile presents information about road cycling and mountain biking for sport or recreational purposes. When these activities are combined, the activity is referred to as cycling. Participants also reported if they cycled for active travel purposes. Cycling for active transport as a separate activity is not included in this report.

### Sample

A total of 4,443 adults aged 16 years and over participated in the 2007/08 Active NZ Survey. Among the participants, 803 (390 men; 413 women) reported participating in road cycling, 228 participants (150 men; 78 women) reported participating in mountain biking and 915 people (465 men, 450 women) reported participating in cycling (i.e. road cycling and/or mountain biking).

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 sport 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, 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. cycling);
2. the day on which the activity was undertaken (e.g. went cycling on Monday, Friday and Sunday);
3. the total time spent participating in each specific sport and recreation activity (e.g. 75 minutes spent cycling on Monday);

4. the amount of time spent at a moderate intensity (e.g. of the 75 minutes spent cycling on Monday, 30 minutes was spent at a moderate intensity); and
5. the amount of time spent at a vigorous intensity (e.g. of the 75 minutes spent cycling on Monday, 30 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 cycling (total) during any one week. Time-related information is only presented for cycling (total) because of low participation levels of mountain biking reported during the week preceding the interview.

### 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 95 percent confidence intervals (e.g. 95% CI: 45-55) have also been age-standardised to the 2006 New Zealand adult population. Estimates without 95% percent confidence intervals represent proportions within the sport-specific population (i.e. adults who participated in the activity), and have not been age-standardised.

Confidence intervals (CI) 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 cycling. 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

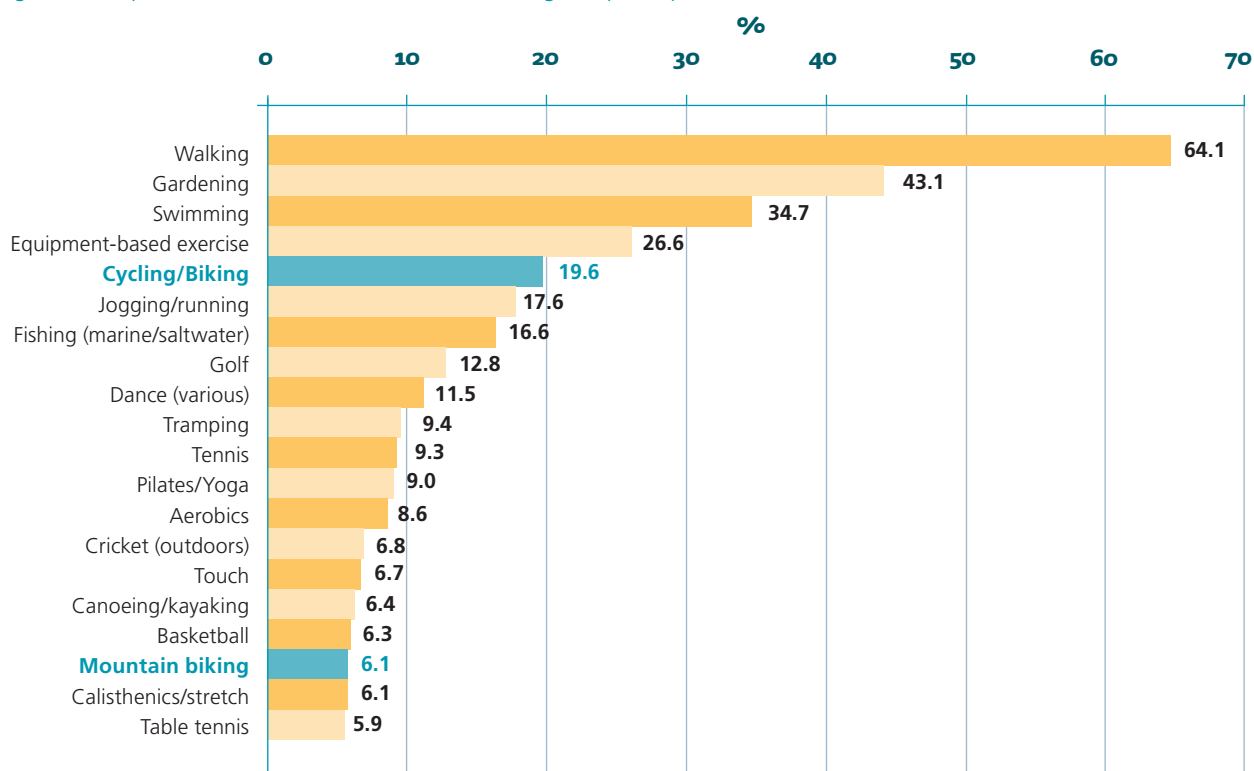
## Participation Levels

### 2007/08 Participation Levels

Over 12 months, 22.7 percent (95% CI: 21.0-24.5) of all New Zealand adults aged 16 years and over (745,183 people) had participated in cycling at least once. In terms of specific types of cycling, 19.6 percent (95% CI: 17.9-21.4) of adults (644,698 people) had participated in road cycling and 6.1 percent (95% CI: 5.0-7.3) of adults (202,237 people) had participated in mountain biking at least once over 12 months. Among adults, 3.1 percent (95% CI: 2.3-3.8; 101,752 people) had participated in both road cycling and mountain biking activities over the last 12 months.

Figure 1 presents 20 sport and recreation activities with the highest participation levels among all New Zealand adults<sup>1</sup>. Among various sport and recreation activities, road cycling had the fifth highest participation rate and mountain biking had the 18th highest participation rate.

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



## Profile of Participants

### Demographic Profile

Table 1 presents demographic information about participation in road cycling, mountain biking and cycling. For example, among all men in New Zealand 27.9 percent participated in cycling at least once over 12 months.

In terms of road cycling, table 1 shows women (compared with men), adults aged 50 years and over (compared with adults from all other age groups) and adults who self-identified as Pacific or Asian (compared with all New Zealand adults) were significantly less likely to have participated in cycling. Participation patterns by socioeconomic position were less clear, however, adults from Quintile 4 were significantly less likely to participate in cycling than adults in Quintile 1.

<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/activenessurvey](http://www.sparc.org.nz/activenessurvey).

In terms of mountain biking, adults aged 50 years and over (compared with adults from all other age groups) and adults who self-identified as Pacific or Asian (compared with all New Zealand adults) were significantly less likely to have participated in mountain biking. Mountain biking participation levels did not differ by socioeconomic position.

When these activities are combined, the cycling data shows men (compared with women), adults aged 16 to 49 years (compared with adults aged over 50) and adults who self-identified as New Zealand European (compared with all other New Zealand adults) were significantly more likely to have participated in cycling. Adults who self-identified as Pacific or Asian (compared with all New Zealand adults) and adults in the most disadvantaged group (Quintile 5) compared with adults in the least disadvantaged group (Quintile 1) were significantly less likely to have participated in cycling.

Table 1: Proportion of adults (aged 16 years and over) who participated in cycling at least once over 12 months

	ROAD CYCLING		MOUNTAIN BIKING		CYCLING	
	Percentage (95% CI)	Population <sup>2</sup>	Percentage (95% CI)	Population <sup>2</sup>	Percentage (95% CI)	Population <sup>2</sup>
Total Population	19.6 (17.9-21.4)	644,698	6.1 (5.0-7.3)	202,237	22.7 (21.0-24.5)	745,182
<b>Gender</b>						
Men	23.0 (20.5-25.6)	367,260	9.4 (3.8-15.1) <sup>3</sup>	151,137	27.9 (23.2-32.6)	443,863
Women	16.3 (14.2-18.4)	277,438	3.0 (-1.1-7.2) <sup>3</sup>	51,100	17.8 (13.4-22.2)	301,319
<b>Age Group</b>						
16-24 years	18.8 (14.7-23.0)	103,503	6.9 (4.0-9.9)	38,109	22.5 (18.1-26.8)	123,471
25-34 years	22.3 (18.5-26.2)	121,651	8.8 (5.9-11.7)	48,130	26.8 (22.9-30.8)	146,086
35-49 years	28.2 (25.1-31.3)	267,198	8.8 (6.5-11.0)	83,091	32.0 (28.8-35.1)	302,583
50 years +	12.3 (10.2-14.5)	152,348	2.7 (1.6-3.7)	32,907	14.0 (11.7-16.3)	173,042
<b>Ethnic Group</b>						
Māori	16.4 (13.0-19.8)	69,886	4.1 (2.2-6.0)	19,291	18.8 (15.2-22.3)	81,259
Pacific	6.9 (3.1-10.8) <sup>3</sup>	15,672	1.4 (0.0-2.8) <sup>3</sup>	3,762	7.8 (3.7-11.9)	17,786
NZ European	22.9 (20.8-25.0)	506,057	7.9 (6.4-9.4)	171,656	27.0 (24.9-29.2)	594,993
Asian	7.6 (4.0-11.2)	31,962	5.0 (2.0-7.9) <sup>3</sup>	4,597	8.3 (4.6-12.1)	35,205
<b>Socioeconomic Position</b>						
Quintile 1	24.2 (22.0-26.4)	478,407	6.8 (5.3-8.2)	132,335	24.2 (22.0-26.4)	478,407
Quintile 2	23.3 (19.7-26.9)	152,733	6.4 (4.0-8.8)	42,991	21.7 (18.1-25.2)	152,732
Quintile 3	21.5 (16.6-26.4)	62,237	4.1 (1.5-6.7) <sup>3</sup>	13,999	20.2 (15.4-25.1)	59,771
Quintile 4	14.5 (9.8-19.1)	38,321	3.7 (1.2-6.3) <sup>3</sup>	9,600	15.7 (10.9-20.5)	41,931
Quintile 5	15.4 (8.7-22.1)	13,485	2.8 (-0.2-5.8) <sup>3</sup>	3,313	14.4 (7.8-21.0)	12,342

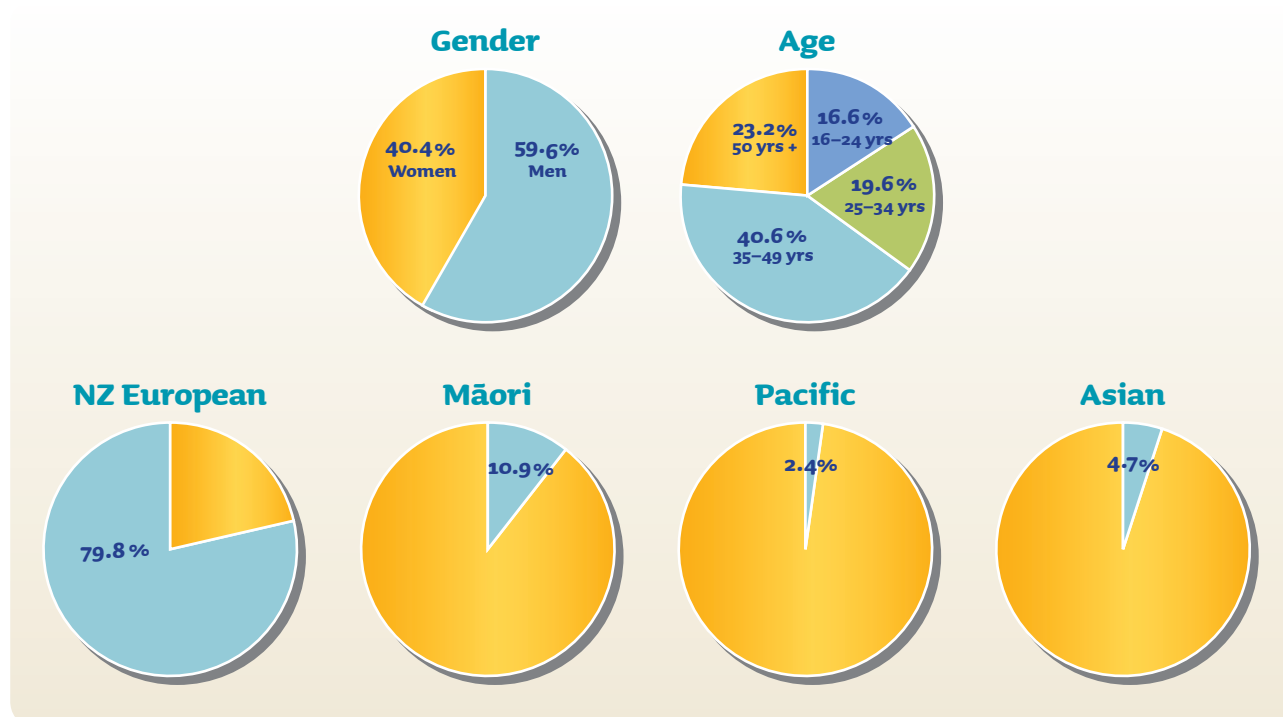
2 The column indicates the number of New Zealand adults who participated in cycling. For example, 367,260 men participated in road cycling at least once over 12 months.

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

Figure 2 presents demographic information about adults who participated in cycling. For example, among all people who participated in cycling 59.6 percent were men and 40.4 percent were women. A large proportion of adults who participated in cycling were:

- men;
- aged 35–49 years; and
- self-identified as New Zealand European or Māori.

Figure 2: Demographic profile of adults who participated in cycling



### Participation in Other Sport and Recreation Activities

On average, adults who participated in cycling at least once over 12 months took part in 7.4 different sport and recreation activities over 12 months (the national average was 4.6). Irrespective of gender, adults who participated in cycling also participated in walking, swimming, gardening, equipment-based exercise, tramping and jogging/running. In addition, men also participated in saltwater fishing and golf while women participated in pilates/yoga and aerobics.

### 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), adults who participated in road cycling were significantly more likely to have achieved the guideline (55.5%; 95% CI: 51.6–59.5); a similar proportion of adults who mountain biked achieved the guideline (49.7%; 95% CI: 43.1–56.3); and a similar proportion of adults who cycled achieved the guideline (53.6%; 95% CI: 49.9–57.3).

4 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<sup>5</sup>

Among adults who participated in:

- road cycling at least once over 12 months, 9.5 percent (60,938 people) had participated in an organised road cycling competition or event;
- mountain biking at least once over 12 months, 14.7 percent (29,756 people) participated in an organised mountain bike competition or event; and
- cycling at least once over 12 months, 10.2 percent (76,013 people) participated in an organised cycling competition or event.

### Instruction

Among adults who participated in:

- road cycling at least once over 12 months, 2.9 percent (18,757 people) had received instruction from a coach, instructor, trainer or teacher to help improve their road cycling performance;
- mountain biking at least once over 12 months, 5.9 percent (11,946 people) had received instruction from a coach, instructor, trainer or teacher to help improve their mountain biking performance; and
- cycling at least once over 12 months, 2.7 percent (19,813 people) had received instruction from a coach, instructor, trainer or teacher to help improve their cycling performance.

### Participation Setting

During any one month:

- 10.7 percent (95% CI: 9.3-12.2) of adults (351,861 people) participated in road cycling at least once;
- 2.9 percent (95% CI: 2.1-3.6; 95,237) of adults participated in mountain biking at least once; and
- 12.1 percent (95% CI: 10.6-13.6; 396,196) of adults participated in cycling at least once.

Among the of adults who participated in road cycling during any one month, the most common locations<sup>6</sup> for road cycling were:

- 'on a road or walkway in a town or city' (84.1%);
- 'outdoors in the bush or countryside' (18.8%); and
- 'at your home/someone else's home' (3.5%)<sup>7</sup>.

Among the of adults who participated in mountain biking during any one month, the most common locations<sup>6</sup> for mountain biking were;

- 'outdoors in the bush or countryside' (73.1%);
- 'outdoors in or by a beach, river, lake or the sea' (32.3%); and
- 'on a road or walkway in a town or city' (26.1%).

Among the of adults who participated in cycling during any one month, the most common locations<sup>6</sup> for cycling were;

- 'on a road or walkway in a town or city' (39.7%);
- 'the bush or countryside' (16.8%); and
- 'in or by a beach, river, lake or the sea' (10.3%).

5 Examples of organised competition and events included one-off events as well as organised club competitions.

6 Adults who reported participating in cycling 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).

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

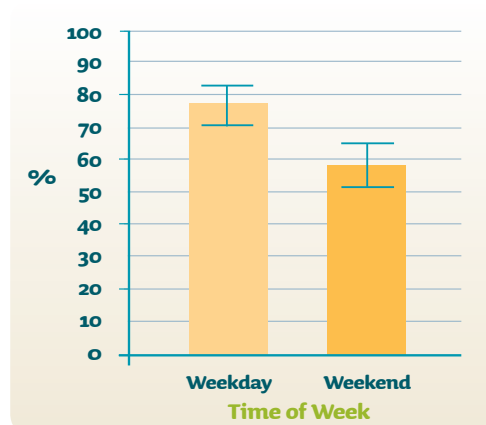
People can belong to different types of clubs or centres in order to participate in sport and recreation. The clubs/centres examined in this survey included: sport and physical activity clubs, social clubs, fitness centres and some other type of club/centre. Among adults who participated in:

- road cycling during any one month, 3.7 percent<sup>8</sup> (13,133 people) belonged to at least one type of club or centre in order to participate in road cycling;
- mountain biking during any one month, 6.3 percent (5,964 people) belonged to at least one type of club or centre in order to participate in mountain biking; and
- cycling during any one month, 4.8 percent (19,097 people) belonged to at least one type of club or centre in order to participate in cycling.

### Time Spent Participating

During any one week, 6.0 percent (95% CI: 4.9-7.2) of all New Zealand adults (197,115 people) participated in cycling at least once. On average, adults went cycling on two days out of seven, for an average of 62 minutes on any one day. The average time spent cycling per week was 141 minutes. Adults were significantly more likely to participate in cycling on weekdays compared with weekend days (Figure 3).

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



### Intensity of Participation

Individuals participate in sport and recreation activities at varying levels of intensity (i.e. light intensity, moderate intensity<sup>9</sup>, vigorous intensity<sup>10</sup>). During any one week, 38.3 percent (95% CI: 31.8-44.8) of New Zealand adults who participated in cycling achieved more than 2.5 hours of moderate-to-vigorous-intensity physical activity through participation in cycling alone (80,749 people).

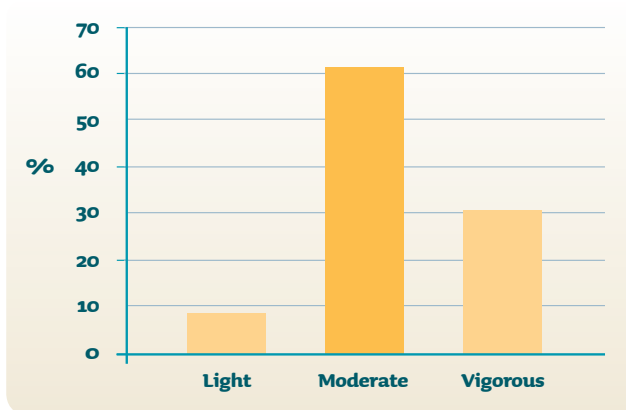
Figure 4 displays the proportion of total cycling time per week that was undertaken at each level of intensity. During any one week, 61.2 percent of cycling time was spent at moderate intensity and 30.8 percent was spent at vigorous intensity. The remaining 8.0 percent of the time was spent participating at light intensity.

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

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

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

Figure 5: Adult participation in cycling, by intensity level



## Volunteering Levels

Among all New Zealand adults, 0.2 percent (95% CI: 0.2-0.3; 8,034 people) volunteered for cycling. Among adults who participated in cycling at least once over 12 months, 47.6 percent (354,919 people) volunteered for at least one sport or recreation activity and 0.9 percent (5,843 people) volunteered for cycling.



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