



**SPORT
NEW ZEALAND**
IHI AOTEAROA

Effects of the first year of the COVID-19 pandemic on young people's participation in Aotearoa

—
June 2022

Acknowledgements

This report focuses on the effects of the first year of the COVID-19 pandemic on young people's participation (aged 5–17) in play, active recreation, and sport from April 2020, when the country was in its first nationwide lockdown, to April 2021, when the country was at Alert Level 1.

It reports on changes in the main participation statistics, how participation has changed, ways of participating and barriers, using repeat cross-sectional analysis from the Active NZ re-contact surveys and the Main Active NZ survey:

- before the COVID-19 pandemic in the Main Active NZ survey, combining April 2017, April 2018 and April 2019 as a baseline for a 'typical April' for 1565 young people
- the April 2020 Active NZ re-contact survey between 16 April and 28 April from 2417 young people
- the April 2021 Active NZ re-contact survey between 6 April and 22 April from 531 young people.¹

We express special thanks to all those who have provided feedback to guide the development of this report and the thousands of New Zealanders who took part in the Active NZ survey.

This report has been prepared by the Intelligence team at Sport NZ, and the team at NielsenIQ, which managed the Main Active NZ survey and the re-contact surveys.

Citation

Sport New Zealand, 2022

Active NZ 2017–2021: Effects of the first year of the COVID-19 pandemic on young people's participation in Aotearoa

Wellington: Sport New Zealand.

Active NZ resources are available at sportnz.org.nz/ActiveNZ

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¹ The Active NZ re-contact survey was also undertaken between 23 June and 6 July 2020 with 1181 young people, and between 9 September and 24 September with 654 young people.

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Glossary

Being active	Refers to being physically active in play, active recreation and sport.
Deprivation	Low deprivation 1–3, medium deprivation 4–7, high deprivation 8–10, based on the NZDep2013 index of socioeconomic deprivation. A value of 10 indicates the most deprived 10 percent of areas in New Zealand. Note: NZDep2013 estimates the relative socioeconomic deprivation of an area and does not relate to individuals.
Ethnicity	Results by ethnicity throughout this report – European, Māori, Pacific (including Samoan) and Asian (including Indian and Chinese) – are based on respondents' self-identification.
Non-participants	People who have not been physically active in play, exercise, active recreation or sport in the past seven days.
Participation in competitive and non-competitive sports or activities	Participating through an organised structure, for example, in a league or club competition, tournament or competitive event. Non-competitive participation refers to sports or activities undertaken outside of a league or club competition, tournament or competitive event.
Participants	People who have been physically active in play, active recreation (including exercise) or sport in the past seven days, where this participation excludes any physical activity undertaken for work or chores. Participation can include physical activity undertaken to get from one place to another if the respondent considers it to be for sport or active recreation.
Play, active recreation and sport	Play, active recreation and sport are referenced throughout this report for simplicity. However, participation is multi-faceted. Play and active recreation are terms used by Sport NZ to capture participation in activities not considered to be sport, for example, playing with friends or alone, dance and tramping. Sport can be done in an organised structure, for example, in a competition or tournament, or informally outside an organised structure. Sport is associated with being competitive, but individuals differ in their degree of competitiveness, irrespective of how they participate.
Respondents	People who took part in the survey.
Young people	Those aged 5–17.
Weekly participation	Refers to being physically active in play, exercise, active recreation or sport at least once in the past seven days.

Effects of the first year of the COVID-19 pandemic on participation

This report focuses on changing participation in play, active recreation and sport for young people throughout the first year of the COVID-19 pandemic from April 2020, when the country was in its first nationwide lockdown, through to April 2021, when the country was at Alert Level 1.

About this report

This report highlights changes in the key participation statistics, how young people's participation has changed, ways of participating and barriers, by drawing on data collected from the repeat cross-sectional Active NZ re-contact surveys and the Main Active NZ survey:

- before the COVID-19 pandemic in the Main Active NZ survey, combining April 2017, April 2018 and April 2019 as a baseline for a 'typical April' for 1565 young people
- the April 2020 Active NZ re-contact survey between 16 April and 28 April from 2417 young people
- the April 2021 Active NZ re-contact survey between 6 April and 22 April from 531 young people.

The overall objective is to understand the effects of the COVID-19 pandemic and restrictions on participation. It focuses on:

- changes in young people's participation patterns and profiles
- barriers and opportunities resulting from the COVID-19 pandemic.

All reported differences are statistically significant at the 95 percent confidence level, unless noted.

Main Active NZ survey²

Sport NZ's Main Active NZ survey measures nationwide participation in play, active recreation and sport.

April 2021 Active NZ re-contact survey³

The April 2021 Active NZ re-contact survey surveyed respondents from previous Active NZ surveys who had given permission to do more research and provided an email address. Young people were invited to respond through the adult. It is an online-only survey and not a continuation of Active NZ, with all its rigor. It is an effective, pragmatic approach to obtaining a cross-sectional population measure of participation during COVID-19 Alert Level 1 in New Zealand.

² For further information on method, sample and objectives for the Active NZ survey, see the Technical Report: <http://sportnz.org.nz/activenz>. Sport NZ, *Active NZ Technical Report for Data Collected in 2019*. Wellington, Sport NZ, 2019, and Appendix A for a summary overview.

³ For further information on the method, sample, objectives, analysis and caveats for the Active NZ re-contact survey, see appendices B–D.

Executive summary

Introduction

This report focuses on young people's changing participation in play, active recreation and sport throughout the first year of the COVID-19 pandemic, using data captured during the nationwide lockdown in March–April 2020 through to April 2021, and compares with a typical pre-pandemic April from 2017 to 2019.

As more recent data become available, the ongoing effect of the pandemic beyond April 2021 will continue to be investigated.

The report's objective is to understand the effects of the COVID-19 pandemic and restrictions on participation one year following the country's first nationwide lockdown.

Key findings

What the key participation statistics say

- April 2021 saw a return to typical April levels on all key participation statistics except for the average number of sports and activities.
- The average number of sports and activities young people took part in was consistently lower throughout the first year of the pandemic, compared with equivalent pre-pandemic months across all four measurement phases: April 2020, June 2020, September 2021, and April 2021.

Key demographic differences

- The picture is different for rangatahi and tamariki because the pandemic has had a more negative effect on rangatahi than tamariki.
- In April 2021, weekly participation, time spent, and average number of sports and activities returned to pre-pandemic levels for tamariki. Tamariki also spent more time in organised participation, compared with pre-pandemic levels.
- Although weekly participation returned to pre-pandemic levels for rangatahi, the average number of sports and activities and time spent participating remained lower than pre-pandemic. Rangatahi spent less time in informal participation, compared with pre-pandemic levels.
 - The increase in time spent in informal participation during the country's first nationwide lockdown in April 2020 was not sustained throughout the first year of the pandemic.
 - Organised participation was slower to recover, with less time spent in organised participation continuing into September 2020, followed by recovery in April 2021 and a return to pre-pandemic levels.

How participation and ways of participating in sports and activities have changed

Lockdowns have caused changes in participation in sports and activities as well as in ways of participating.

- Cycling, walking and workouts (weights or cardio), the three most popular sports and activities with increases in participation during April 2020, returned to pre-pandemic levels in April 2021.
- The most popular overall activity (running, jogging or cross country) returned to pre-pandemic levels in April 2021, as did swimming, football/soccer/futsal, tramping or bush walks, netball, kapa haka, hockey/floorball and gymnastics.

- Some sports and activities, where participation was lower during the April 2020 lockdown, had not returned to pre-pandemic levels by April 2021 (these include all aspects of play, for example, running around, climbing trees, make-believe, playing on a playground, and games like four square, tag, bull rush, dodgeball and rugby/Rippa rugby).
- In April 2021, dance and trampolining remained lower than pre-pandemic and the April 2020 lockdown levels.
- Basketball/mini ball had lower participation during the April 2020 lockdown, and participation had not returned to pre-pandemic levels in April 2021.
- April 2021 saw the return to in-person training. Use of activity trackers was unchanged by the pandemic, with females aged 12–17 more likely to use activity trackers.

How barriers to participation have changed

Barriers to increasing participation changed throughout the course of the first year of the pandemic, affected by periods of lockdown and changing alert levels.

- The top barrier to increasing participation of ‘too busy’ returned to pre-pandemic levels in April 2021.
- Other barriers that returned to pre-pandemic levels include: ‘I already do a good amount of physical activity’, ‘my family cannot afford it’, ‘I am not fit enough’, ‘my parents want me to focus on schoolwork/other activities’, ‘my friends are not physically active’ and ‘not enough PE (Physical Education) offered at school’.
- ‘Too hard to get to training, games and competitions’, which was lower during the April 2020 lockdown, returned to pre-pandemic levels in April 2021.
- In April 2021, the second barrier to increasing participation of ‘too tired/don’t have the energy’ was higher, compared with April 2020 and pre-pandemic levels.
- Finding physical activity boring and ‘PE/fitness classes at school are not fun’ were higher barriers to increasing participation in April 2021, compared with pre-pandemic levels and the April 2020 lockdown.
- ‘Struggles with motivation’, ‘preferring to do other things’, ‘no one to be active with’ and ‘lacking confidence’ have been unchanged by the pandemic.
- For rangatahi, on two of the top three barriers to increasing participation (‘too tired/don’t have the energy’ and ‘struggles with motivation’), the picture is different.
- ‘Not having the energy/too tired’ and ‘struggles with motivation’ have increased over the pandemic for male rangatahi and now match levels evident for female rangatahi. These barriers have been unchanged throughout the pandemic for female rangatahi.

Conclusion

This report describes the effects of the first year of the COVID-19 pandemic on young people's participation in play, active recreation and sport one year after the country's first nationwide lockdown (April 2021) and compares with a typical pre-pandemic April (2017–2019).

The ongoing effect of the pandemic beyond April 2021 will continue to be investigated as more recent data become available.

By April 2021, except for the sports and activities that remained lower, compared with a typical pre-pandemic April, young people's participation had rebounded. This was largely driven by a recovery in participation by tamariki. Rangatahi have not fared as well, spending less time participating, particularly in informal participation and in fewer sports and activities, compared with a typical pre-pandemic April.

The increase in time spent in informal participation during the April 2020 lockdown was not sustained, and organised participation was slower to recover across the first year of the pandemic.

Increases in and preferences for sports and activities that emerged in April 2020 at best returned to typical pre-pandemic April levels, with some remaining lower.

Barriers changed throughout the first year of the pandemic. The top barrier of 'too busy' returned to typical pre-pandemic April levels, while the second barrier to increasing participation of 'too tired/don't have the energy' was higher, compared with April 2020.

Male rangatahi have not fared as well, with 'not having the energy/too tired' and 'struggles with motivation' increasing over the first year of the pandemic to match levels evident for female rangatahi. These barriers have been unchanged throughout the pandemic for female rangatahi.

1. What the key participation statistics say

This section reports key participation statistics from the Active NZ re-contact surveys conducted in April 2020, June 2020, September 2020, and April 2021. It draws comparisons with Main Active NZ survey 2017–2019 results in the equivalent months before the COVID-19 pandemic.

Insights

- Except for the average number of sports and activities participated in each week, which one year into the COVID-19 pandemic remained lower, compared with a typical April (4.6 in April 2021 and 5.5 for April 2017–2019 pre-pandemic, down by 14.9 percent), April 2021 saw a return to typical April levels on the remaining key participation statistics.
- The average number of sports and activities young people did was consistently lower throughout the first year of the pandemic, compared with equivalent pre-pandemic months across all four measurement phases: April 2020, June 2020, September 2021 and April 2021.

Key demographic differences

- The picture is different for rangatahi and tamariki, because the pandemic has had a more negative effect on rangatahi than tamariki.
 - In April 2021, weekly participation, time spent, and average number of sports and activities returned to pre-pandemic levels for tamariki. Tamariki also spent more time in organised participation, compared with pre-pandemic levels.
 - Although weekly participation returned to pre-pandemic levels for rangatahi, the average number of sports and activities and time spent participating remained lower than pre-pandemic. Rangatahi spent less time in informal participation, compared with pre-pandemic levels.
- The increase in time spent in informal participation during the country's first nationwide lockdown in April 2020 was not sustained throughout the first year of the pandemic.
- Organised participation was slower to recover, with less time spent in organised participation continuing into September 2020, followed by recovery in April 2021 and a return to pre-pandemic levels.

Except for the average number of sports and activities participated in each week, which one year into the COVID-19 pandemic remained lower, compared with a typical April (4.6 in April 2021 and 5.5 for April 2017–2019 pre-pandemic, down by 14.9 percent), April 2021 saw a return to typical April levels on the remaining key participation statistics (table 1).

The picture is different, however, for tamariki and rangatahi.

- **For tamariki**, the following key participation statistics returned to typical (pre-pandemic) April levels:
 - weekly participation (97 percent in April 2021 compared with 94 percent pre-pandemic).
 - time spent participating (10.8 hours in April 2021 compared with 12.6 hours pre-pandemic). In April 2021, more time was spent in organised participation (5.2 hours) compared with pre-pandemic (3.4 hours)
 - average number of sports and activities participated in each week (5.3 in April 2021 and pre-pandemic).
- **For rangatahi**, although weekly participation returned to typical April levels (90 percent in April 2021 compared with 92 percent pre-pandemic), the following key participation statistics, in April 2021 were lower compared with a typical April:
 - time spent participating (9.0 hours in April 2021 compared with 11.8 hours pre-pandemic)
 - time spent in informal participation (4.3 hours in 2021 compared with 6.2 hours pre-pandemic)
 - average number of sports and activities participated in each week (3.9 hours in April 2021 compared with 5.6 hours pre-pandemic).

Table 1: Summary of changes in key participation statistics from the Main Active NZ survey (2017–2019) and Active NZ re-contact surveys

	Pre-pandemic April 2017 + 18 + 19 n=1565	April 2021 n=531	Difference (%)
Weekly participation	93.2%	94.0%	+0.9
Average number of hours being active	11.26	10.85	-3.6
Average number of sports and activities	5.45	4.64	-14.9 ▼
Meeting the physical activity guidelines (7+ hrs any intensity)	58.7%	57.1%	-2.7
Weekly organised participation	78.60%	79.7%	+1.25
Average number of hours in organised participation	4.39	4.93	+12.3
Weekly informal participation	86.60%	83.2%	-4.6
Average number of hours in informal participation	6.81	6.14	-9.8

▲ ▼ Significantly higher/lower than pre-pandemic typical April

The increase in time spent in informal participation during the first nationwide lockdown in April 2020 (14.8 percent higher compared with a typical April) was not sustained throughout the first year of the pandemic.

The pattern of less time spent in organised participation, evident during April 2020, continued into September 2020 (17.3 percent lower compared with a typical September), with recovery in April 2021 returning to typical April levels (table 2).

Table 2: Changes in key participation statistics from the Active NZ re-contact surveys and the Main Active NZ survey (percentage difference compared with pre-pandemic 2017–2019)

	April 2020 n=2417 compared with April 2017 + 2018 + 2019	June 2020 n=1181 compared with June 2017 + 2018 + 2019	September 2020 n=654 compared with September 2017 + 2018 + 2019	April 2021 n=531 compared with April 2017 + 2018 + 2019
Weekly participation	-6.5 ▼	-4.2 ▼	-2.1	+0.9
Average number of hours being active	-27.7 ▼	-15.5 ▼	-9.3	-3.6
Average number of sports and activities	-35.8 ▼	-21.2 ▼	-19.7 ▼	-14.9 ▼
Meeting the physical activity guidelines (7+ hrs any intensity)	-23.7 ▼	-12.5	-3.6	-2.7
Weekly organised participation	-84.81 ▼	-9.89	-3.45	+1.25
Average number of hours in organised participation	-93.2 ▼	-25.5 ▼	-17.3 ▼	+12.3
Weekly informal participation	-1.15	-6.1	-3.53	-4.6
Average number of hours in informal participation	+14.8 ▲	-8.51	-6.4	-9.8

▲ ▼ Significantly higher/lower than pre-pandemic equivalent typical months

2. How participation and ways of participating in sports and activities have changed

This section explores variations (and consistency) in participation in different sports and activities. It uses results from the Active NZ re-contact survey and draws comparisons between a typical April, April 2020 during the country's first lockdown and April 2021.

Insights

Lockdowns have caused changes in participation in sports and activities as well as in ways of participating.

- Cycling, walking and workouts (weights or cardio), the three most popular sports and activities with increases in participation during April 2020, returned to pre-pandemic levels in April 2021.
- The most popular overall activity (running, jogging or cross country) returned to pre-pandemic levels in April 2021, as did swimming, football/soccer/futsal, tramping or bush walks, netball, kapa haka, hockey/floorball and gymnastics.
- Some sports and activities, where participation was lower during the April 2020 lockdown, had not returned to pre-pandemic levels by April 2021 (these include all aspects of play, for example, running around, climbing trees, make-believe, playing on a playground, and games like four square, tag, bull rush, dodgeball and rugby/Rippa rugby).
- In April 2021, dance and trampolining remained lower than pre-pandemic levels and during the April 2020 lockdown.
- Basketball/mini ball had lower participation during the April 2020 lockdown, and participation had not returned to pre-pandemic levels in April 2021 (table 3).
- April 2021 saw the return to in-person training. Use of activity trackers was unchanged by the pandemic, with females aged 12–17 more likely to use activity trackers.

Table 3: Participation in sports and activities

	Combined April 2017 + 2018 + 2019	Re-contact survey April 2020	Re-contact survey April 2021
Running, jogging or cross country (net)	53.88%	43.62%	53.47% ▲
Playing (eg, running around, climbing trees, make-believe)	42.75%	27.80%	32.89% ▲▼
Cycling (net)*	35.11%	46.22%	32.29% ▼
Playing on playground (eg, jungle gym)	35.76%	5.08%	29.75% ▲▼
Swimming	31.02%	1.54%	26.93% ▲
Walking for fitness	28.80%	46.72%	26.13% ▼
Games (eg, four square, tag, bull rush, dodgeball)	34.11%	12.31%	25.77% ▲▼
Trampoline	25.02%	22.66%	19.68% ▼▼
Scootering	22.36%	19.85%	18.35% ▼
Football/soccer/futsal (net)	17.94%	7.05%	16.25% ▲
Workout (weights or cardio)	14.99%	25.38%	13.98% ▼
Tramping or bush walks	11.31%	4.60%	12.55% ▲
Netball	11.48%	2.95%	11.06% ▲
Group exercise class (eg, aerobics, Cross Fit, Jump Jam)	12.61%	14.16%	10.70% ▼
Dance/dancing (eg, ballet, hip hop etc)	16.77%	13.92%	8.98% ▼▼

Kapa haka	6.39%	0.34%	8.40%▲
Basketball or mini-ball	12.15%	6.12%	7.89%▼
Rugby or Ripa rugby	12.21%	1.04%	6.82%▲▼
Hockey or floorball	6.13%	1.20%	6.55%▲
Gymnastics (eg, rhythmic, artistic)	6.85%	2.85%	5.25%▲

Base: All respondents ages 5–17 (combined April n=1565, re-contact April 2020 n=2417, re-contact April 2021 n=531)
Where or how did you do <activity> in the last 7 days?

Arrows show significant increase/decrease over time
* Cycling (net) includes road cycling and mountain biking (it excludes BMX and e-biking)
▲▼ Significantly higher/lower than re-contact April 2020
▲▼ Significantly higher/lower than combined April

April 2021 saw the return to in-person training, compared with April 2020. The use of activity trackers and apps was consistent in April 2020 and April 2021 (table 4).

In April 2021, young people most likely to use technology were females (34 percent) and aged 12–17 (12–17, 43 percent; 15–17, 53 percent).

Table 4: Use of technology

	Re-contact survey April 2020	Re-contact survey April 2021
Used an activity tracker (eg, smartphone, Fitbit and so on)	20%	16%
Accessed online information (eg, podcasts, YouTube, videos) about being active	25%	11%▼
Used an activity app	12%	9%
Received advice from online forums or social media groups about being active	11%	3%▼
Done training or exercise that is open to anyone online or shown on television	30%	2%▼
Received workout programmes via email, text, messenger or similar	17%	2%▼
Done group training just for my team/group without an instructor online	5%	2%▼
Done group training just for my team/group with an instructor online	10%	0%▼
Had one-on-one training with an instructor online	5%	0%▼
NET: Used technology	65%	26%▼
Done group training just for my team/group with an instructor (in person)	2%	56%▲
Had one-on-one training with an instructor in person	3%	19%▲
Got information from books/magazines about being active	4%	3%
I have not done any of these	20%	25%
Done other things	16%	2%▼

Base: All respondents ages 5–17 (re-contact April 2020 n=2300, re-contact April 2021 n=516)
In the last 7 days (not including today), have you...

Note: This question not asked in Active NZ

Arrows show significant increase/decrease over time
▲▼ Significantly higher/lower than re-contact April 2020

3. How barriers to participation have changed

This section identifies changes in barriers to participation. It uses results from the Active NZ re-contact survey and draws comparisons between a typical April, April 2020, and April 2021.

Insights

Barriers to increasing participation have changed throughout the course of the pandemic, affected by periods of lockdown, and changing alert levels.

- The top barrier to increasing participation of 'too busy' returned to pre-pandemic levels in April 2021.
- Other barriers that returned to pre-pandemic levels include: 'I already do a good amount of physical activity', 'my family cannot afford it', 'I am not fit enough', 'my parents want me to focus on schoolwork/other activities', 'my friends are not physically active' and 'not enough PE offered at school'.
- 'Too hard to get to training, games, and competitions', which was lower during the April 2020 lockdown, returned to pre-pandemic levels in April 2021.
- In April 2021, the second barrier to increasing participation of 'too tired/don't have the energy' was a bigger barrier, compared with April 2020 and pre-pandemic 2017–2019.
- Finding physical activity boring and 'PE/fitness classes at school are not fun' were bigger barriers to increasing participation, compared with pre-pandemic levels and April 2020 lockdown.
- 'Struggles with motivation', 'preferring to do other things', 'no one to be active with' and 'lacking confidence' have been unchanged by the pandemic (table 5).
- For rangatahi, on two of the top three barriers to increasing participation ('too tired/don't have the energy' and 'struggles with motivation'), the picture is different.
- 'Not having the energy/too tired' and 'struggles with motivation' have increased over the pandemic for male rangatahi to match levels evident for female rangatahi. These barriers have been unchanged throughout the pandemic for female rangatahi.

Table 5: Barriers to participation

	Combined April 2017 + 2018 + 2019	Re-contact survey April 2020	Re-contact survey April 2021
Too busy	40.30%	13.91%	46.37% ▲
I am too tired/do not have the energy	16.01%	11.37%	23.25% ▲▲
It is too hard to motivate myself	15.61%	20.24%	21.25%
I already do a good amount of physical activity	15.35%	8.22%	17.57% ▲
I prefer to do other things	14.73%	13.08%	17.12%
My family cannot afford it	11.21%	3.86%	12.90% ▲
I have no one to do it with	8.34%	8.41%	11.41%
I am not fit enough	9.09%	5.88%	10.67% ▲
My parents want me to focus on my schoolwork/ other activities	6.34%	2.71%	9.38% ▲
I am not confident enough	10.02%	6.95%	8.98%
My friends are not physically active	5.31%	3.87%	8.03% ▲
PE/fitness classes at school are not fun	4.01%	2.77%	7.86% ▲▲
Not enough PE offered at school	5.40%	2.08%	7.71% ▲
I find physical activity boring	3.51%	5.37%	7.62% ▲
Too hard to get to training, games or competitions	10.46%	5.32% ▼	7.58%

Note: Only showing top 15 barriers
 Base: All respondents ages 8–17 (combined April n=1137, re-contact April 2020 n=1700, re-contact April 2021 n=374)
 For what reasons are you not doing as much physical activity as you would like? / For what reasons do you not want to do more physical activity than you are currently doing?
 Arrows show significant increase/decrease over time
 ▲ ▼ Significantly higher/lower than re-contact April 2020
 ▲ ▼ Significantly higher/lower than combined April

Changes over the first year of the pandemic on struggles with motivation and too tired/do not have the energy

For rangatahi, 'struggles with motivation' as a barrier to increasing participation was bigger, compared with pre-pandemic levels (29 percent April 2021 compared with 20 percent pre-pandemic).

Also, in April 2021, for 34 percent of rangatahi, 'too tired/do not have the energy' was a barrier compared with 20 percent pre-pandemic.

On these two barriers, males, rangatahi, European, and young people from low deprivation areas have been most affected.

Compared with pre-pandemic levels, the proportion of males struggling with motivation increased from 12 percent to 21 percent and to a level like females at 22 percent. 'Struggles with motivation' remained unchanged for females over the pandemic.

Similarly, the proportion of males with the barrier of 'too tired/do not have the energy' to increase their participation more than doubled, from 11 percent pre-pandemic to 24 percent in April 2021 and to a similar level to females at 22 percent. This barrier has also been unchanged for females.

In April 2021, 'too tired/do not have the energy' was a barrier for one-in-four young people from low deprivation areas (26 percent), compared with 16 percent pre-pandemic, and for 28 percent of young European, compared with 17 percent pre-pandemic.

Appendices

Appendix A – Main Active NZ survey

This research aims to:

- collect information on the ‘who,’ ‘what,’ ‘how’ and ‘where’ young people and adults participate
- identify and describe links between participation (and non-participation) and other influential factors; the ‘why’ and ‘why not’ people participate
- measure the quality of participation and the contribution participation makes to an individual’s health and wellbeing
- understand the value placed on participation by people in New Zealand.

Survey method

The survey method uses online and postal self-completion using sequential mixed methods, we are targeting 20 000 adults and 5000 young people per annum.

Fieldwork period

The 2017 survey was conducted between 5 January 2017 and 4 January 2018. The 2018 survey was conducted between 5 January 2018 and 4 January 2019. The 2019 survey was conducted between 5 January 2019 and 4 January 2020.

Completed responses

Across the three years, responses have been received from n=74 160 adults aged 18-plus and n=16 398 young people aged between 5 and 17.

Weighting

Results have been weighted to the total New Zealand Regional Sports Trust population using 2013 census statistics.

A sequential mixed methodology is used for this research

Electoral roll	Invitation letter	Reminder postcard 1	Survey pack	Reminder postcard 2
Sample selected from electoral roll	<p>Invitation letters are sent to the named adults (aged 18-plus) inviting them to complete the questionnaire online (with instructions and log-in provided).</p> <p>A postcard is included, to encourage young people aged 12 to 17 to complete the children and young people’s questionnaire online.</p> <p>A 0800 number and email address are provided for questions.</p>	<p>About a week later, a reminder postcard is sent thanking respondents and acting as a reminder to those still to respond.</p> <p>This communication is targeted to adults only.</p>	<p>A week after the postcard, nonrespondents are sent a survey pack with a hardcopy of the questionnaire, letter, and a reply-paid envelope.</p> <p>A flyer is included for ages 12 to 17 to complete the survey online (no paper questionnaire is available for the children and young people’s survey).</p>	A final reminder is sent to adults who have not yet taken part in the survey.

Note: Parents or caregivers are asked to respond on behalf of children aged 5–11 in their household (and encouraged to do this with their child and/or check responses with them). Sixty-three percent of tamariki were involved in answering. Rangatahi (aged 12–17) are invited to respond. Forty-two percent of rangatahi involved their parent/caregiver when completing the survey.

Appendix B – Active NZ re-contact survey

Approach

The Active NZ re-contact survey is a new, separate piece of research with New Zealanders who have previously responded to the Main Active NZ survey and given permission to be re-contacted via email to take part in more research, that is, as a sub-group of the total Active NZ sample. The re-contact surveys are cross-sectional point-in-time measures and were conducted online only.

In April 2021, respondents who in April 2020, June 2020 or September 2020 said they no longer wished to participate in future surveys were excluded.

Young people aged 5–17 were recruited through adults. The first email invitation included a link to the adult survey and three links to a survey for tamariki and rangatahi. The adult was encouraged to pass these links on to the young people in their household (in April 2021 preferably to the same young person who completed in April, June and/or September 2020). In April 2021, invitations were also sent to email addresses collected from young people aged 15–17 in the April Active NZ re-contact survey.

Three reminders were sent during fieldwork, to encourage responses from adults still to complete the survey (in a similar format to the initial invitation). A slightly different reminder was sent to adults who had completed the survey, and who had tamariki and rangatahi in their household, and who had not responded.

Sample source – Active NZ

The sample source comprised all Active NZ respondents who agreed to be re-contacted via email from the 2017 to 2020 Active NZ surveys aged 15-plus. Many at the time of surveying were adults aged 18-plus.

Using the total sample available to be re-contacted provided a large base, enabling sub-group analysis and exploration of the development of a cohort study to track individual behaviour changes over time.

Sample source – External panels

During the April 2020 re-contact survey, fieldwork responses for ages 12–17 were low. External panel providers Toluna and Dynata were used to boost the sample for this age group. However, the sample sourced from external providers was removed from the final analysis to enable comparison with Active NZ data.

Final numbers

- **Invited:** 33 266 adults and 1336 young people aged 15–17 years (their age *in* 2017–2020).
- **Completed responses:** 5342 adults and 531 young people.
- For adults: 5291 came from the adult re-contact sample and 51 came from the young people re-contact sample.
- For young people: 43 came from the young people re-contact sample and 488 came from the adult re-contact sample.
- The response rate from the n=33 266 adults was 16 percent (5291 / 33 266).
- The response rate from the n=1336 young people was 7 percent ((51+43) / 1336).
- Of the 488 who came from the adult re-contact sample (9 percent of the adult completes), 364 were adults who completed the survey on behalf of their young people between ages 5–11.
- The breakdown of young people by age was: ages 5-11: n=364, ages 12-14: n=58, ages 15-17: n=109.

Appendix C – Active NZ re-contact survey: Analysis, weighting, and reporting

Comparisons with past Active NZ data

The results from the April 2021 Active NZ re-contact survey are compared with findings from the April 2020 re-contact survey and combined results from April in 2017, 2018 and 2019, sourced from the Main Active NZ survey (ie, April 2017 + April 2018 + April 2019). For adults, only the results for those who had agreed to be re-contacted were included in the combined April results.

In determining the appropriate baseline, we considered:

- known seasonality in participation data
- recency
- sufficient sample for sub-group comparisons.

For the April 2020 and June 2020 re-contact surveys, we reviewed monthly results over the past three years, that is, 2017–2019, to understand how April and June varied to quarter 2 (April–June) results, other months of the year and annual averages, before determining what was the best approach.

We used the same approach for the April 2021 Active NZ re-contact survey.

Weighting

The combined results for April 2017 + April 2018 + April 2019, the April 2020 re-contact survey results and the April 2021 re-contact survey results have been weighted to population data from the 2013 Census, using the same variables and approach as in the Main Active NZ survey. For more information, please refer to the most recent Active NZ Technical Report.⁴

Questionnaire

The questionnaire was a cut-back version of the Main Active NZ survey with a few additional questions. It was important to keep it short, especially because we want respondents to continue doing future surveys as we monitor their participation over time.

The average length for adults was 15 minutes (April 2020, June 2020 and September 2020 were 17, 18 and 16 minutes respectively). The average length for young people was 11 minutes (April 2020; and June 2020 was 12 minutes and September 2020 was 11 minutes); 10 minutes for ages 5–11 (completed by the adult) and 14 minutes for ages 12–17.

Reporting

Throughout the Active NZ re-contact survey report, differences are highlighted by population sub-group for young people or adults, plus differences between the time periods.

Note that results for adults and young people are drawn from two separate surveys: one for young people between ages 5–17 and one for adults aged 18-plus. Any commentary about differences between young people and adults is based on observations rather than statistical testing between the two data sets.

Within the three data sets, reported differences are statistically significant at the 95 percent confidence level. Significance testing means we can be sure the differences reported are not due to random variation because we are using a sample and not conducting a population census. Knowing a difference is statistically significant does not mean the difference is important, and only meaningful differences have been commented on.

⁴ See the Technical Report: <http://sportnz.org.nz/activenz>. Sport NZ, *Active NZ Technical Report for Data Collected in 2019*. Wellington, Sport NZ, 2019, which can be found, at <https://sportnz.org.nz/assets/Uploads/Active-NZ-Technical-Report-2018.pdf>.

Appendix D – Active NZ re-contact survey: Caveats and notes

The April Active NZ re-contact survey was the first time a re-contact survey of this scale had been undertaken with previous Active NZ respondents. Due to the time constraints and requirement to be in field during Alert Level 4, our approach had several limitations that are important to consider. The same approach was used for the June and September re-contact surveys for consistency.

Approach

The April 2020 re-contact survey was not a continuation of Active NZ, with its complex sampling framework and mixed method to appeal to a range of New Zealanders. It was not intended to continue the time series, and we could not guarantee sub-group sample sizes or a similar representation as in Active NZ, both in demographic profile and participation levels.

We tried to mitigate this as much as possible, however, by going to a large sample, and we monitored sub-groups of interest during fieldwork. This resulted in a boost of young people between ages 12–17 from external panel providers (though it was later determined these would be excluded from the analysis in this report).

Rather, the April 2020, June 2020, September 2020 and April 2021 re-contact surveys were an effective, pragmatic means of obtaining a measure of participation during the various stages of COVID-19 restrictions.

Questionnaire

We used many of the same questions as for the Main Active NZ survey, even though we were aware some response codes were not applicable during this time.

This was both for simplicity and comparability of results over time, although we recognise it may have been annoying for some respondents.

Sampling frame

Our sampling frame did have limitations. For the April re-contact survey, due to the need to move quickly, we analysed the sampling frame (those who agreed to be re-contacted in Active NZ) in parallel to the set-up of the research. Ideally, this would have been done prior. This provided important context for who responded and how the sampling frame differed from the total Active NZ sample and the New Zealand population.

Sample bias

We initially compared the April 2020 re-contact survey results for adults to all Active NZ adult results in the previous Aprils (2017 + 2018 + 2019). However, our sample analysis showed that those who agreed to be re-contacted were more active than those who did not, so the comparison was changed to be only those adults who completed Active NZ in previous Aprils and who agreed to be re-contacted. Likewise, we excluded samples sourced from external providers because they are less active. The same approach was used for the June 2020, September 2020 and April 2021 re-contact surveys.

Weighting

Weighting is used to adjust for small imbalances in the achieved sample, compared with the sampling frame when you are unable to control who does and does not respond. Statistically, we should weight the re-contact survey results to the results of those who have agreed to be re-contacted. However, we also wanted to be able to compare the results with previous population estimates from Active NZ, so we weighted to the New Zealand population. Ideally, we would have quota and/or weighted for participation levels, but this proved too difficult because the pandemic disrupted how people were physically active.

Weighting was applied in the following ways:

- household size at national level, split into bucket groups
- household income at national level, split into bucket groups
- ethnicity at national level, split into bucket groups
- region and national level, split into 17 regional sports trusts (RSTs) by age and gender.

Several adjustments were also made during the weighting process for each re-contact survey, including the following.

- Weighting assumes one adult per household completes the survey, but in a handful of cases two adult respondents were in a household (for example, a young person between ages 15–17 now qualifying as an adult), so these were removed from the data.
- In a small number of cases, data was incomplete for age or date of birth, so these were also removed.
- Some respondents selected an area outside an RST region, so were allocated to Auckland.
- No data were gathered for RSTs (assigned by address data in the electoral roll), so the region question was used as a proxy.
- Some RSTs were merged, for example, the four sub-regions in Auckland, to improve the weighting efficiency.