New Zealand Income Support Survey

Reach Aotearoa

New Zealand Income Support Survey

Methodology Report 2022

MINISTRY OF SOCIAL DEVELOPMENT
TE MANATŪ WHAKAHIATO ORA

Inland Revenue
Te Tari Taake

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Contents

Introduction and background

The New Zealand Income Support Survey (NZISS) was a nationwide, mostly in-person survey with 1,852 respondents that took place between June and December 2022. This report outlines the procedures and protocols that were followed to ensure that the NZISS was able to produce high-quality, robust and useful data.

Aim

The aim of the NZISS was to provide nationally representative evidence to help evaluate recent changes to the income support system and inform future policy advice and service development. The survey was intended to provide timely, reliable and relevant information that could not be collected more efficiently from other sources.

Objectives

To achieve this aim, the following high-level objectives were identified for the NZISS. These were to collect anonymous, nationally representative survey information on:

- awareness, understanding and receipt of different payments that make up the income support system
- channels through which people made or renewed applications for payments
- ease or difficulty of making and renewing applications, and reasons why people found it easy or difficult
- the extent of non-take up by people who appeared to be or thought they were eligible for a payment, and the reasons for non-take up
- what people said was important to them when they thought about how much paid work they did
- material wellbeing
- shared care of children
- the wellbeing of extended family, whānau or aiga
- what people with children in relevant age groups said about access to childcare and out-of-school care and its affordability.

Additionally, this information was needed by population sub-group. Key sub-groups for analysis included: family type, benefit status, ethnicity, gender, age group, age of the respondent's youngest child, and whether the respondent had a shared care arrangement.

A target of 2,000 interviews was set, with approximately 1,200 (60 percent) of these interviews being with families with children. It was intended that key estimates at the population level would be accurate to within a maximum ± five percent, and that estimates at the sub-group level, or estimates for key follow-up questions (for example questions about why people were not receiving payments) would be accurate to within a maximum of ± ten percent. These target interview numbers were informed by the available budget for the survey, as well as interview numbers for the 2006 Working for Families Communications Survey, which surveyed 988 families with children and asked similar questions to components of the NZISS.

Features of the survey

The NZISS was designed to minimise respondent burden. We did this by:

- carefully testing questions to minimise possible miscomprehension
- carefully selecting questions to ensure that the survey was kept to an acceptable length
- using professional, trained interviewers to conduct the interviews
- making appointments to conduct each interview at a time that suited respondents and their families
- offering the option of an online interview
- having the option of using a proxy respondent where would-be respondents living in private dwellings had severe ill health or cognitive disability.

The MSD Research Ethics Panel reviewed and provided advice on the NZISS.

Survey content

The NZISS consisted of 19 modules of questions. A brief overview of these modules, including which respondents were asked what modules, is contained in Table 1 below.

Table 1: Modules contained in the NZISS.

Module	Who was asked
1: Household composition	All respondents.
2: Income support payments – awareness and understanding	All respondents.
3: Income support payments – experience of payments	All respondents who had applied or reapplied for Working for Families tax credits from Inland Revenue, or had applied or reapplied for any type of payment from Work and Income, in the last 12 months.
4: Monetary challenges	All respondents.
5: Potential eligibility for selected payments – income and cash assets	All respondents unless eligibility for payments determined in screener questions.
6: Potential eligibility for selected payments – share of care of children	All respondents with children with family income under the in-work tax credit cut-off.
7: Family tax credit	Respondents with children who had income below the family tax credit threshold and had at least one child who met the share of care criteria.
8: Accommodation Supplement	All respondents.
9: Childcare assistance	Respondents with children under 14 years old with income below the family tax credit threshold.
10: In-work tax credit	Respondents with children who had income below the in-work tax credit threshold and had at least one child who met the share of care criteria.[1]
11: Paid work	All respondents who were answering on behalf of themselves.[2]
12: Relationships – family relationships	All respondents who either had children or were in a couple.
13: Relationships – declaring partners	All respondents who either had children, or were in a couple, and were answering on behalf of themselves.[2]
14: Relationships – co-parenting	Respondents who had shared care of children for at least four days per week (for at least one child).
15: Wellbeing of wider family, whanau, or aiga	All respondents who were answering on behalf of themselves.
16: Age and country of origin	All respondents.
17: Residency status	All respondents.
18: Self-complete section	All respondents who were answering on behalf of themselves.
19: Qualifications and employment	All respondents.

[1] Not all these respondents were asked these questions. Please see Appendix D for more information.
[2] A small number of respondents were not asked these questions. Please see page 18 for more information.

The questionnaire was designed by a joint MSD and IR project team, which coordinated with key stakeholders across both agencies to determine what content was to be included within the questionnaire.

Some of the content of the questionnaire replicated parts of a 2006 Working for Families survey (often referred to as the 2006 Communications Survey) that was used to gauge awareness and experiences of claiming Working for Families payments. This allows for some limited comparison to that data.

The questionnaire was administered to adults between 18 and 64 years old, who were not in full-time study, and met at least one of the income criteria for either the Accommodation Supplement (AS), or the in-work tax credit which is part of the Working for Families (WFF) suite of tax credits and payments.

For details on the topics included within the questionnaire, please see the *Content Guide for the 2022 NZISS.* The questionnaire can be found on the MSD website alongside other materials published as part of the NZISS.

Survey population and sample design

Target population

The target population is the population that the survey aimed to represent. For the NZISS, the target population was the population of New Zealanders aged 18-64 with incomes and other circumstances that made them potentially eligible to receive either AS or WFF. Based on estimates generated by the Treasury, this population was estimated to include 758,000 households. These households were skewed towards being in higher deprivation areas. These estimates are included in Appendix A.

Survey population

The survey population is the population that was covered in the survey. The NZISS was a survey of people living in private accommodation (including accommodation provided by Kainga Ora, Community Housing Providers, and local councils) in the North Island or South Island. Those living in non-private dwellings (such as prisons, hospitals, and motels) were excluded, as we elected to take a household survey method. To maximise relevance to the evidence needs of MSD policy teams, those who were in full-time study were excluded unless they had dependent children.

Sample design

MSD and IR commissioned Reach Aotearoa (formerly CBG Public Sector Surveying) to undertake the survey.

The sample design for household surveys conducted by Reach Aotearoa (for example, the New Zealand Health Survey) typically follows the following stages:

1. a sample of primary sampling units (PSUs) is drawn with probability of selection proportional to size[3,4]
2. within each PSU, a fixed number of dwellings are selected
3. within each dwelling, one or more respondents are selected.

For the NZISS, MSD and IR were interested in collecting information about people who (at the time of being approached), were receiving income support payments (including main benefit payments, AS, and WFF tax credits), and about people who were potentially eligible for selected income support payments – AS and family tax credit (the main WFF tax credit), but not receiving those payments.

One of MSD and IR's requirements for the survey design was that it should provide insights as to whether any differences between key sub-groups were statistically significant; in particular, differences between:

- ethnic groups

[3] The primary sampling unit used for the NZISS was Statistics New Zealand meshblocks (2018).
[4] For more information about what primary sampling units are, please see: https://cros-legacy.ec.europa.eu/content/primary-sampling-unit-psu_en#:~:text=DEFINITION%3A,the%20only%20Sampling%20units.

- those in receipt of a main benefit versus not
- sole versus partnered parents.

MSD commissioned research from Treasury to estimate the number and proportion of households in areas with different New Zealand Deprivation (NZDep2018) scores that would have people potentially in scope for the survey. This was stratified by whether they were in receipt of a main benefit or not, family type and main ethnic group, to help inform the survey design.

People in scope for the survey were estimated as being those aged 18-64 and potentially eligible for WFF tax credits or AS, who were either the primary caregiver for a child aged under 18, or a single or partnered person without dependent children. Reach used these parameters and the research from Treasury to design a sampling approach that would target both people who were receiving income support, and people not receiving a main benefit who were potentially eligible for WFF or AS.

Targets

Based on the Treasury research, MSD and IR specified the following initial targets for NZISS recruitment (Table 2).

Table 2: Initial targets for NZISS recruitment.

Household membership group	Receiving a main benefit	Potentially eligible for WFF or AS and not receiving a main benefit	Total
At least one sole parent	300	300	600
At least one couple parent			600
At least one single adult no children	200	200	400
At least one couple no children			400
Total			**2,000**

The main challenge with these targets was that the probability of there being an eligible person in the 'Potentially eligible for WFF or AS and not receiving a main benefit' category in any randomly selected dwelling is very low.

MSD noted that very few couples are supported by main benefits, because the income cut-out points are low. Whilst MSD were interested in results by whether the couple was with or without a main benefit, they did not propose having strata along these lines, as recruitment could prove difficult.

The hardest target to achieve was for a sole parent potentially eligible for WFF or AS, and not receiving a main benefit. The deprivation decile with the greatest proportion of households with people in this group was decile 9 with 3.5 percent. In decile 10 (the most deprived) this proportion was only 2.5 percent. This meant that to achieve the maximum number of respondents, a heavily skewed sample, stratified by NZDep, but oversampling deciles 8, 9 and 10 was required.

After a range of options were examined, it was determined that the most efficient way of achieving this sample was to target households by NZDep score. Based on Treasury

estimates, Reach worked out the likely proportion of houses in each of the 10 deprivation deciles that would have at least one eligible person in each of the four categories above. Using these rates, Reach adjusted the proportions of the sample to be drawn from each deprivation decile.

Relying on heavily oversampled deciles could lead to inefficient population estimates, so it was decided that the sample should be less skewed, with approximately 50 percent being drawn from deciles 1-7, and approximately 50 percent from deciles 8-10. Mitigation of oversampling in the more common target family group types (single people without children in particular) would be done in field by Reach's sample management software, by using a prioritisation algorithm for 80 percent of eligible households.

Final design

Table 3 below shows the distribution of the Stats NZ supplied PSUs.

Table 3: Distribution of PSU's selected for NZISS, by level of area deprivation.

Level of area deprivation (NZDep2018 decile)	PSUs
1 (lowest)	25
2	25
3	25
4	25
5	25
6	25
7	25
8	60
9	60
10 (highest)	60
Total	**355**

Based on the figures supplied by Treasury, Reach estimated the resulting distribution of responses, assuming that contact would be made with 22 houses per PSU (Table 4).

Table 4: Expected distribution of responses for NZISS, by family type.

Household membership group	Receiving a main benefit	Potentially eligible for WFF or AS and not receiving a main benefit	Total
At least one sole parent	354	130	484
At least one couple parent			739
At least one single adult no children	868	443	1,311
At least one couple no children			543
Total			**3,076**

To achieve the highest possible number of responses in the 'At least one sole parent' and 'Potentially eligible for WFF or AS and not receiving a main benefit' cells, up to two

surveys per household could be completed, using screening and quota-filling, with 20 percent being randomly selected, and the following method in 80 percent of households:

1. if there was a person in the sole parent group, they would be selected
2. if there were two people in the sole parent group, they would both be selected
3. if there were any other groups in the household, they were selected in the following priority order:
    a. couple with children
    b. couple without children
    c. single adult without children.

Table 5 below shows the priority rating of the different family type combinations that could be selected through the prioritised selection process.

Table 5: Priority rating for prioritised interviewing.

Priority	First survey in the household	Second survey in the household
1	Sole parent	Sole parent
2	Couple with children	Couple with children
3	Couple without children	Couple without children
4	Single without children	Single without children

Table 6 below contains an example of how this worked in practice.

Table 6: Example of how prioritised interviewing selection works.

Step	Action
1: Families within household are identified	The following family units are identified in the household: - a sole parent family - a couple without children - a single adult without children
2. A sole parent family is selected for survey #1	A sole parent is identified and, with consent, is interviewed
3. A sole parent family is selected for survey #2	No additional sole parent families are identified so this step is skipped
4. A couple with children family is selected for survey #2	No couple with children families are identified, and so this step is skipped
5. A couple without children family is selected for survey #2	A couple without children family is identified and, with consent, one of the partners in the couple is interviewed

Once a family had been selected, one person from that family unit was chosen to undertake the interview. For couples with children, we asked if we could interview the main caregiver of their children, however if they were not available, or did not want to be interviewed, we interviewed their partner instead.

Household selection

Reach randomly selected an initial sample of 9,000 households from PSUs selected for the survey using the New Zealand Post address database. This was to account for non-response at levels like those for the New Zealand Health Survey.

Agile design

The design assumed that the estimates supplied by Treasury were accurate. There were noted caveats on the estimates, relating to the lack of data to determine potential eligibility for the Accommodation Supplement.

From a technical standpoint, it was expected that adequate samples of Māori and Pacific respondents would be achieved for sub-group analysis, based on the Treasury estimates. Reach agreed with MSD and IR to monitor distributions and patterns of responses (including by ethnicity) closely as data collection progressed. It was agreed that modifications to the sample design might be required during collection to maximise the chance of sub-group targets (specifically targets in relation to family types) being met.

In addition to an agile sample design, other strategies were employed to maximise the response from the selected sample. These included:

- survey information materials, with inclusive imagery, sent to households in advance of the interviewer's visit
- interviewer training on engaging with, and securing agreement from diverse groups
- up to 10 visits to each address on different days and at different times of the day, to maximise the chances of contact being made
- ability to make appointments at a time and place convenient to the respondent
- option of having the interview conducted in a range of languages, including Te Reo Māori and New Zealand Sign Language
- monitoring interviewer performance throughout fieldwork, with additional training and support being provided where required.

Amendments to design

In September 2022, the original design was amended in response to the accumulating numbers of families of different types in the sample. The purpose of this change was to achieve surveys from as many sole parents as possible.

Data collection was stopped after 12 PSUs in NZDep 1-5 had been completed (down from 25 PSUs in original sample), and the resources required to survey these houses (that were consequently not visited) were redeployed to visit an additional 312 houses in PSUs in NZDep 6-10.

A further modification was made to restrict the number of surveys from single people with no children. An update to the sample management software used by interviewers in the field was issued on September 21. The update screened out 60 percent of single people with no children if they were selected using the prioritisation algorithm.

Data collection

Reach Aotearoa collected the data for NZISS. Reach's team comprised approximately 16 professional public policy interviewers.

Interviews were conducted via one of two methods:

- computer-assisted personal interviewing (CAPI)
- computer-assisted video interviewing (CAVI).

Both methods are similar in that the survey is programmed into an electronic format, with pre-defined response options, automatic question routing, logic and consistency checks. In both modes, an interviewer administers most of the survey, with some of the more personal questions being completed independently by the respondent. The key difference between the two modes is that CAPI is administered in-person (interviewer and respondent in the same physical location). CAVI on the other hand, is administered via a video connection, using a video interview platform (see below).

Interviews

Ninety-seven percent of the surveys for NZISS were collected via CAPI. For CAPI, the interviewer would enter responses directly into a laptop, using the Askia survey platform. Data for some of the more sensitive questions were collected via computer-assisted self-interviewing (CASI), whereby respondents would enter their responses directly into a tablet computer. The main benefit of administering questions via CASI, is that it affords the respondent a greater level of privacy. Because the respondent will typically feel safer and more comfortable to provide honest answers, the accuracy of the data collected is greater, compared with the question being administered by the interviewer.

Electronic showcards with predetermined response options were used to help respondents where appropriate. The options displayed on the electronic showcards would automatically change as the survey progressed.

Programming and testing/quality assurance

Both CAPI and CASI elements of the questionnaire were programmed as a single survey, with prompts included to notify the interviewer/respondent of when they should pass the computer to the other party. The electronic questionnaire was then tested by professional software testers at Reach (see Appendix B for further detail on the checks performed).

MSD and IR were also given an opportunity to test the survey through a web-based link. This involved running test interviews with synthetic example family scenarios, to test logic and timings, and interviews where a range of test respondents answered the survey based on their own circumstances, to test acceptability, comprehension, flow and timings.

CAVI

In response to COVID-19 restrictions, Reach developed a virtual interviewing system, which enabled computer-assisted video interviewing (CAVI). The CAVI system provided a secure, private online 'room' where an interviewer and respondent could meet to complete the survey together, in a way that closely resembled an in-person interview.

The system featured an integrated video call component and a large survey window. The respondent could view the showcards on their screen and complete the CASI questions themselves.

The Reach CAVI system was provided as an option to any survey respondent who preferred that method of taking part in the survey, or where someone in the household had COVID-like symptoms or was awaiting a COVID test result. This was used for three percent of the survey interviews.

Interviewer training

Interviewers were required to complete a range of baseline and survey-specific training modules before working on the survey. Baseline modules included:

- public sector surveying
- maximising response rates
- cultural awareness
- enumeration
- safety management.

The survey-specific module covered:

- the purpose of the survey and the use of the data
- survey methodology and fieldwork procedures
- survey content and areas to pay particular attention to
- orientation of the NZISS sample management software
- assessment and practice surveys.

Once the self-directed training modules were completed, interviewers were encouraged to continue with some independent practice in delivering the survey, to become familiar with the flow and content. All interviewers were subject to formal assessment prior to being allowed to start work in field. During the first four weeks in field, coaches provided close supervision and support. As the interviewers became more confident and proficient, the level/frequency of support was moderated.

Interviewers were also provided with a survey handbook and flowcharts and were made familiar with all materials for the respondents. Interviewers could also revisit any of the online training modules at any time.

Field work

COVID-19 protocols

To ensure the safety of respondents and interviewers in relation to COVID-19, doorstep recruitment of the household was conducted at a distance of at least 1 metre. After a respondent had been selected, the following screening questions were administered:

- Is anyone in your household currently unwell and having symptoms similar to COVID-19? This includes fever, coughing, sore throat, and sneezing.
- Is anyone in your household self-isolating? For example, because they have travelled back from overseas recently or had been in contact with someone who had COVID-19.
- Is anyone in your household currently employed in a role where they may come in contact with COVID-19? For example, working at official quarantine facilities, or employed to work on aircrafts that come from overseas.

If the respondent screened negative to all three questions, the survey proceeded face-to-face if the respondent was comfortable with the interviewer being in their home, otherwise a video interview was offered. Other precautions included the use of disposable masks if physical distancing was not possible inside the residence.

If the respondent screened positive to any of the three screening questions, then a face-to-face interview was not permitted. In this situation, the respondent had the option to reschedule the interview to a later date (at least two weeks in the future) or complete the survey via a video interview. If they opted for a video interview, the interviewer provided a login card with information on how to access the survey, and they agreed on a time with the respondent.

In addition to the above, a range of other measures were implemented to minimise exposure to, and spread of, COVID-19 (see Appendix C).

Enumeration

Each PSU selected for the survey was re-enumerated by the interviewer when they first visited, to ensure accuracy of both new dwellings and those removed (since the last update of the address database). New household details were entered into Reach's sample management software while the interviewer was in the field, making those households eligible for the random selection process.

Invitation to participate

The NZISS was voluntary, relying on the goodwill of respondents, with interviewers obtaining consent for participation without coercion or inducement. Reach mailed each selected household an invitation letter from MSD and IR, an information pamphlet on the survey, and a separate flyer detailing the measures that were being taken to minimise COVID-related risks (see Appendix E). Interviewers took copies of the information pamphlet when they subsequently visited households seeking people's agreement to participate in the survey.

The materials given to households provided information on the purpose of the survey, the information that would be collected and what it would be used for. Assurances were given to respondents that any information provided would be anonymised and that the names of participants would not be accessible by staff at MSD or IR. Data collected was not able to be linked to MSD or IR data in any way. It was also explained that if a respondent was currently receiving payments from MSD or IR, the answers provided in the survey would in no way affect any future payments received.

Using Reach's sample management software, up to two respondents were selected to take part in the survey in each household. Respondents were asked to sign an electronic consent form. The consent form required the respondent to confirm they had read and understood the information pamphlet, that they could ask questions at any time, and that they could contact Reach or MSD for more information.

The consent form also informed respondents:

- of the option to request an interpreter if required
- that they could stop the interview at any time
- that they did not have to answer every question (through the option of a "don't know" or "prefer not to say" response)
- that their participation was confidential, and no identifiable information would be used in any reports
- that their answers were protected by the Privacy Act 2020.

Where a selected respondent was unable to provide consent themselves, a welfare guardian or someone who held enduring power of attorney for the respondent's personal care and welfare was permitted to consent and complete the survey on the respondent's behalf.

At various points during the questionnaire, respondents were reminded of the confidential nature of the survey. Questions pertaining to household composition also included interviewer prompts to reiterate this if they deemed it to be helpful, to encourage accurate reporting.

All respondents were given a thank you card (Appendix E) and a koha of a $30 gift card in appreciation of their time and contribution at the conclusion of the interview. A list of social and community organisations was also included, should respondents want further information or advice about the payments or topics covered in the survey. A 'benefits booklet' originally prepared by Katoa Ltd and updated for the survey by MSD, was also provided. This contained information about different payments and tax credits from the MSD and IR websites.

Interview duration

The mean duration of the survey was 24 minutes. Time taken for the interviewer to engage with the household, complete the consent process, and pack away at the end of the survey (an average of 10 minutes) is not included in this duration. Table 7 overleaf provides a breakdown of the mean interview duration by family type.

Table 7: Mean interview duration, by family type.

Family group type	Duration (minutes)
Single with children	27
Couple with children	27
Couple no children	20
Single adult no children	19
Total	**24**

Respondent feedback / fieldwork quality assurance

To ensure survey protocols were followed correctly and to ascertain respondents' satisfaction with the survey process, Reach conducted audit calls with 24 percent of all respondents and at least two households per PSU. Interviewers also left postcards with respondents, which they could use to send feedback (anonymously if they chose) directly to Reach. Feedback was also encouraged via the survey helpline and email.

Respondents were also asked a set of five questions, to complete on their own at the end of the survey, to gauge how acceptable or not particular elements of the survey and interaction were.

They were asked to rate each of the following on a scale of one to five, with one being absolutely not acceptable, and five being highly acceptable:

- survey length
- number of questions
- complexity of questions
- intrusiveness of questions
- the way they were encouraged to take part in the survey.

Table 8 below provides the mean scores (out of five) for these measures, by family type.

Table 8: Mean satisfaction score, by category and family type

Family type	Survey length	Number of questions	Complexity of questions	Intrusiveness of questions	Way in which you were encouraged to take part
Single with children	4.5	4.5	4.4	4.4	4.7
Couple with children	4.4	4.4	4.3	4.3	4.6
Couple no children	4.6	4.5	4.5	4.4	4.7
Single adult no children	4.5	4.5	4.4	4.4	4.7
Total	**4.5**	**4.5**	**4.4**	**4.4**	**4.7**

Amendment to questionnaire

During the very early stages of data collection, feedback was received from the interviewer team regarding question SD1.24. The original wording of the question was "Do you identify as being disabled?". The consideration was that not everyone with a disability would necessarily identify as being disabled. On 17 June 2022, the wording was amended to "Do you identify as having a disability?". It was expected that this new wording would make the question more accessible, whilst still achieving the intention of the question, which was to identify whether the respondent self-identified as having a disability.

Data quality - auditing

As part of routine audit processes, discrepancies in the data from one interviewer were identified. The interviewer was relatively new and as such, had been subject to a 100 percent audit rate. A full investigation took place to determine what had happened.

It was determined that the data collected by this interviewer at 13 out of 61 households could not relied upon. Subsequently, the interviewer was removed from the interviewer team and data pertaining to the 13 households was deleted.

Data quality – post survey checks

As part of checks that took place after completion of the survey, a routing error was identified that impacted the in-work tax credit section of the survey.

Two groups of respondents that should have been asked questions in the in-work tax credit section of the survey, were not. These two respondent groups were respondents with:

- a youngest child aged 14 or older
- incomes above the family tax credit cut-off but below the in-work tax credit cut-off.

The immediately preceding section of the survey was about childcare and childcare assistance and was not a required section for these two groups of respondents. This routing error had a range of impacts on the results, which included a:

- minor impact on the results regarding awareness
- minor impact on the calculated receipt of the payment
- significant impact on the analysis of what changes respondents had made or would make because of the payment
- major impact on analysis of whether income support payments make working worthwhile or help to meet family's needs.

More information about these impacts is documented in Appendix D.

Additionally, a separate error was found that affected 15 respondents who were incorrectly not asked questions about paid work, or relationships. It was determined that this issue was down to an isolated technical fault. The impact of this is noted where appropriate in the relevant packs of findings.

Data quality – shared care

A decision was made in the design of the survey to not ask families with children that had incomes above the in-work tax credit cut-off, but below the Accommodation Supplement cut-off for their family type, questions about shared care. In total, 40 respondents with children were not asked the shared care module of the survey as a result. This means our population of shared care families does not include data for the upper bounds of our "middle" income population of families.

Achieved sample

Table 9: Achieved sample by gender and age group.[5]

Age group	Male	Female
18-24 years	106	140
25-34 years	142	328
35-44 years	123	283
45-54 years	115	231
55-64 years	142	195
Total	**628**	**1,177**

Table 10: Achieved sample by ethnicity and gender.[5,6]

	Ethnicity				
Gender	**European**	**Māori**	**Pacific**	**Asian**	**Other (including MELAA)**
Male	344	171	103	80	24
Female	651	394	175	136	38
Total	**995**	**565**	**278**	**216**	**62**

Table 11: Achieved sample by ethnicity and age group.[5,6]

	Ethnicity				
Age group	**European**	**Māori**	**Pacific**	**Asian**	**Other (including MELAA)**
18-24 years	143	96	56	20	6
25-34 years	222	163	76	68	21
35-44 years	213	118	62	66	16
45-54 years	203	89	49	38	10
55-64 years	214	99	35	24	9
Total	**995**	**565**	**278**	**216**	**62**

[5] Respondents who said they were another gender, responded "don't know" or "preferred not to say", or had their survey completed via proxy are not included in this table.

[6] A respondent could identify with more than one ethnicity. This results in totals within ethnic breakdowns adding up to more than 100 percent of respondents.

Table 12: Achieved sample by Urban/Rural indicator.

Area Description (UR 2018)	Number of interviews
Major urban area	788
Large urban area	452
Medium urban area	160
Small urban area	227
Rural settlement	25
Rural other/inlet	200
Total	**1,852**

Table 13: Achieved sample by level of area deprivation (NZDep2018 decile).

Level of Area Deprivation (NZDep2018 decile)	Number of interviews
1 (lowest)	8
2	31
3	26
4	30
5	54
6	98
7	106
8	282
9	454
10 (highest)	763
Total	**1,852**

Table 14: Achieved sample by family type.

Family type	Number of interviews
Single with children	450
Couple with children	568
Couple no children	257
Single adult no children	577
Total	**1,852**

Table 15: Achieved sample by receipt of a main benefit and family type.

	Receipt of a main benefit		
Family group type	**Receiving a main benefit***	**Not receiving a main benefit**	**Total**
Single with children	255	195	450
Couple with children	86	482	568
Couple no children	47	210	257
Single adult no children	217	360	577
Total	**605**	**1,247**	**1,852**

* Jobseeker Support, Jobseeker Support (health condition, injury, or disability), Supported Living Payment, Sole Parent Support, Emergency Benefit, Emergency Maintenance Allowance

Screen out rate

A series of questions were asked at the household-level when contact was first made with a household member, to determine the family group type or types that resided in the household. The four family group types that were determined at the household level were:

1. sole parent
2. couple with children
3. couple without children
4. single adult without children.

A household was eligible to take part if there was at least one household member aged between 18 and 64 years and:

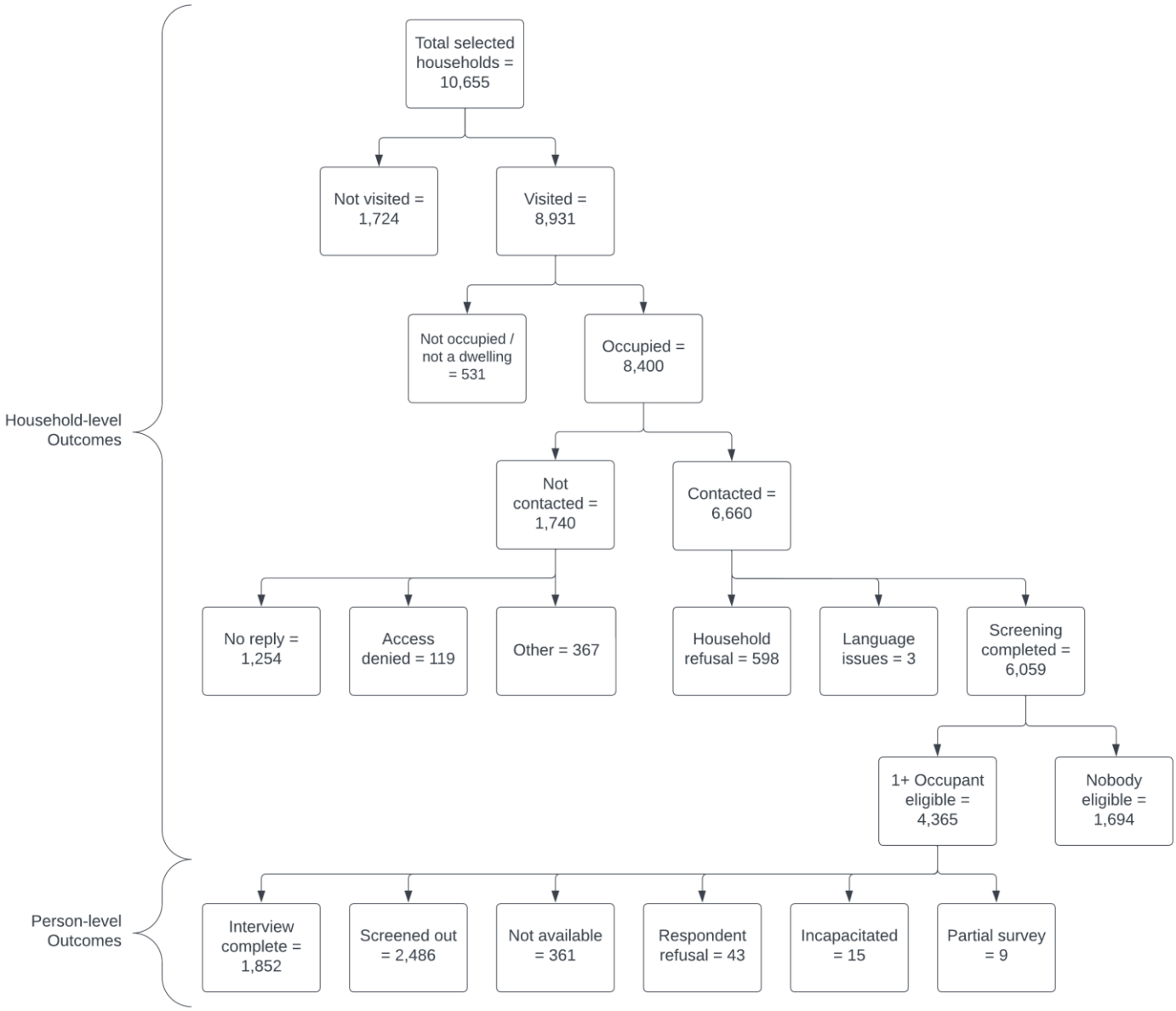
- a couple with no children, where neither was a full-time student; or
- a single adult with no children, who was not a full-time student; or
- a couple with children; or
- a single person with children.

Once a household was determined as eligible to take part, up to two people from two different family groups were selected to take part in the survey. A further screening process took place at the beginning of the survey with the selected respondent(s). This screening was based on income levels, which varied by geographic area, to establish whether the respondent had income that made them potentially eligible for AS and/or WFF. If the respondent's own income or the combined income of the respondent and their partner exceeded the threshold, then they were screened out of the survey and did not continue. Respondents could also be screened out at this stage if they or their partner had cash assets above the threshold for AS and they did not have income and family circumstances that made them potentially eligible for WFF.

The total number of households contacted was 6,660. Of these, 6,059 were happy to complete the screening process. 4,365 of these households contained at least one eligible occupant (72 percent). Within the eligible households, a total of 4,766 respondents were selected, 2,486 of which were subsequently screened out (52 percent).

Figure 1 overleaf depicts the distribution of final outcomes at the household and selected occupant level.

Figure 1: Distribution of final outcomes at the household and selected occupant level



Response rates

The response rate is a measure of the number of people that participated in the survey, as a proportion of those selected to take part. The higher the response rate, the more representative the survey results are of the New Zealand population.

Response rate is an important measure of the quality of a survey. However, for the NZISS, the main objective was to maximise the total number of surveys completed, with the spread of different family types as even as possible. Because the screening out rate was higher than anticipated, a strategic decision was made to direct fieldwork efforts into areas which were more likely to produce higher survey yields, in favour of maximising response rates across the board.

Calculating the response rate

Interviewers recorded the outcome of the final visit (if in-person) or call (if via CAVI) to each sampled dwelling as a code in the sample management software. These outcome codes were then used in the response rate calculations. Note that these were the final outcomes, as interviewers could call at a selected dwelling up to a maximum of 10 times. This is shown in Table 16 below.

Table 16: Contact outcome, by code and response rate category.

Contact outcome	Code	Response Rate Category
Interview	I	A
Not eligible / screened out	NE	B
Unavailable for duration of survey	U	B
No reply	NR	C
Access denied/no access	AD	C
Household refusal	HR	D
Respondent refusal	RR	D
Not available at time of visit	NA	D
Appointment	APT	D
Language issues	L	D
Incapacitated (infirm/hospitalised)	INC	D
Partial survey	P	D
Other	OTH	D
Not visited*	NV	-
Vacant*	V	-
Not a dwelling/Empty section*	NDE	-

* These contact outcomes (NV, V and NDE) were not included in either the response rate calculation or the calculation of (occupied) dwellings visited but have been included in this table for completeness.

Primary respondent response rate

In the NZISS, up to two people in a household could be selected to take part. Separate response rates for the primary and secondary respondent were calculated.

The primary respondent response rate calculation classified all selected households into the four categories shown in Table 17. Because the decision was made to abandon fieldwork in certain areas, not all households ended up being visited. For this reason, households with a 'not visited' outcome have been excluded from the response rate calculation.

Table 17: Response rate category, by contact outcome

Response rate category	Contact outcome
Interviews (A)	Interviews
Not eligible (B)	Not eligible / screened out
	Unavailable for duration of survey
Eligibility not established (C)	No reply
	Access denied / no access
Eligible non-response (D)	Household refusal
	Respondent refusal
	Not available at time of visit
	Language issues
	Incapacitated
	Appointment
	Survey partially completed
	Other

An estimate of the eligible households within the sample was calculated as:

$$A + D + C\left(\frac{A + D}{A + B + D}\right)$$

where A, B, C and D are the total number of households in each of the four response categories above.

The primary interview response rate was calculated as the number of households where an interview was achieved with the primary respondent, divided by the estimated eligible households:

$$\frac{A}{A + D + C\left(\frac{A + D}{A + B + D}\right)}$$

This is reduced or simplified to:

$$\frac{A(A + B + D)}{(A + D)(A + B + C + D)}$$

A breakdown of the primary interview response rate by deprivation quintile and region is provided in Table 18 and Table 19 below.

Table 18: Number of primary interviews, by level of area deprivation.

Level of area deprivation (NZDep2018 quintile)	Primary interviews	Primary interview response rate
1 (lowest)	36	31%
2	53	39%
3	132	38%
4	354	44%
5 (highest)	1,046	54%
Total	**1,621**	**48%**

Table 19: Number of primary interviews, by region.

Region	Primary interviews	Primary interview response rate
Northland	41	56%
Auckland	376	42%
Waikato	100	56%
Bay of Plenty	164	53%
Gisborne	14	34%
Hawke's Bay	182	61%
Taranaki	99	44%
Manawatū-Wanganui	110	41%
Wellington	188	57%
West Coast	36	49%
Canterbury	135	41%
Otago	117	49%
Southland	37	62%
Tasman	6	52%
Nelson	7	25%
Marlborough	9	29%
Total	**1,621**	**48%**

Secondary respondent response rate

A further 231 interviews were conducted with secondary respondents. The same method as above was used to derive an overall response rate of 61 percent for this group.

A breakdown of the secondary interview response rate by deprivation quintile and region is provided below in Table 20 and Table 21.

Table 20: Number of secondary interviews, by level of area deprivation.

Level of area deprivation (NZDep2018 quintile)	Secondary interviews	Secondary interview response rate
3	20	40%
4	34	53%
5 (highest)	171	68%
Total	**231**	**61%**

Note: Area deprivations 1 and 2 withheld due to small numbers of secondary interviews.

Table 21: Number of secondary interviews, by region.

Region	Secondary interviews	Secondary interview response rate
Northland	6	57%
Auckland	64	49%
Waikato	17	81%
Bay of Plenty	20	63%
Gisborne	6	88%
Hawke's Bay	41	94%
Taranaki	14	56%
Manawatū-Wanganui	20	65%
Wellington	16	57%
Canterbury	15	42%
Otago	7	62%
Marlborough	64	49%
Total	**231**	**61%**

Note: Figures for West Coast, Southland, Tasman, and Nelson withheld due to small numbers of secondary interviews.

Combined response rate

It was also possible to derive a combined response rate for the survey by summing the total number of primary and secondary interviews, and dividing by the estimated number of eligible primary and secondary respondents.

The formula can be expressed as follows, where p refers to the primary respondent and s refers to the secondary respondent:

$$\frac{Ap + As}{\left(Ap + Dp + Cp\left(\frac{Ap + Dp}{Ap + Bp + Dp}\right)\right) + \left(As + Ds + Cs\left(\frac{As + Ds}{As + Bs + Ds}\right)\right)}$$

The resulting combined response rate was 50 percent.

This response rate is lower than some other high profile field surveys undertaken in New Zealand. For example, prior to COVID-19, the New Zealand Health Survey (NZHS), and the New Zealand Crime & Victims Survey (NZCVS) both typically had response rates of around 80 percent.[7,8] These rates dipped in 2022 when the NZISS ran (56 percent for the 21/22 NZHS, 71 percent for the 22/23 NZHS, and 71 percent for the 21/22 NZCVS), though were still higher than what was achieved with the NZISS.[9,10]

However, given that it was the first time the NZISS had been run, the more complex recruitment and screening required by the NZISS, and that we prioritised maximising the number of interviews achieved rather than the response rate, this response rate was considered acceptable by MSD and IR.

[7] Ministry of Health. 2023. *Methodology Report 2022/23: New Zealand Health Survey*. Wellington: Ministry of Health. Retrieved from: https://www.health.govt.nz/system/files/documents/publications/methodology-report-2022-23-new-zealand-health-survey-dec23.pdf

[8] Ministry of Justice. 2020. *New Zealand Crime and Victims Survey. Methodology Report. Cycle 2 (2018/19).* Wellington: Ministry of Justice. Retrieved from: https://www.justice.govt.nz/assets/NZCVS-2018-19-Methodology-Report-Year-2-fin-v1.2.pdf

[9] Ministry of Health. 2022. *Methodology Report 2021/22: New Zealand Health Survey*. Wellington: Ministry of Health. Retrieved from: https://www.health.govt.nz/system/files/documents/publications/methodology_report_2021_22-_new_zealand_health_survey_11_nov.pdf

[10] Ministry of Justice. 2022. *New Zealand Crime and Victims Survey. Methodology Report. Cycle 5 (2021/22).* Wellington: Ministry of Justice. Retrieved from: https://www.justice.govt.nz/assets/Documents/Publications/Cycle-5-Methodology-Report-V1.0-FINAL.pdf

Data capture and processing

Capturing and coding

Questionnaire responses were entered directly on interviewers' laptops using CAPI software.

Most questions had single response options or required discrete numerical responses. However, several questions allowed for multiple responses. For these questions, all responses were retained, with each response shown as a separate variable on the data file.

In addition, several questions in the questionnaire offered a category called 'other', where respondents could specify non-standard responses. Each 'other' category response was recorded in free text.

Ethnicity is self-defined, and respondents were able to report their affiliation with more than one ethnic group. Responses to the ethnicity question were coded to level 4 of the Ethnicity New Zealand Standard Classification 2005.[11] These are then coded to level 1 and level 2 codes for analysis purposes.

Securing information

Any information collected in the survey that could be used to identify individuals was treated as strictly confidential. Data was transferred daily from interviewers' laptops to Reach Aotearoa by a secure internet upload facility. MSD and IR were only able to access de-identified data, which was supplied via a secure file transfer platform provided by Reach.

The names and addresses of people that participated in the survey and consented to being recontacted for audit or a future study were not stored with response data. Unit record data were stored in a secure area and only accessible on a restricted basis.

[11] See https://aria.stats.govt.nz/aria/?_ga=2.36224803.2011327351.1686888631-421263238.1678654179#ClassificationView:uri=http://stats.govt.nz/cms/ClassificationVersion/l36xYpbxsRh7IW1p

Weighting

Introduction

This section describes the methods used to produce weights and replicate weights for the NZISS. Weights are usually applied to sample survey data during its analysis to adjust for factors such as differential selection probabilities, non-response patterns and sample skews, relative to population figures.

The sample design for the NZISS incorporated four levels: PSUs, households, families, and people. Weights have been calculated to enable analysis of the NZISS data at two of these levels: families, and people. These weights incorporate adjustments for each of the factors listed above.

Selection weights

Initial household weights were calculated as the reciprocal of each household's estimated probability of inclusion in the sample. The sampling weight of the j^{th} household in the i^{th} PSU (HW_{ij}) can be calculated by the following formula, where P_i is the probability of PSU i being selected and PH_{ij} is the probability of household j being selected from PSU i:

$$HW_{ij} = \frac{1}{P_i PH_{ij}}$$

where

$$PH_{ij} = \frac{n_i}{N_i}$$

and n_i is the number of households selected from PSU i, and N_i is the total number of households in PSU i.

Family weights

Each household could contain several eligible family units, and one individual was selected to be surveyed from up to two of these family units. To calculate family weights, we calculate the probability that each family would be selected. This is based on a set of prioritisation rules. The family weight for family k (FW_{ijk}) is calculated by multiplying the household weight by the inverse of the probability of selection for family k (PF_{ijk}).

$$FW_{ijk} = HW_{ij} \frac{1}{PF_{ijk}}$$

where

$$PF_{ijk} = \begin{cases} pr_{ij} & if\ single\ person\ family\ after\ 21\ Sept\ 2022\ and\ nh_{ijk} \geq 2 \\ (0.4 \times 0.8)/(1 + ns_{ijk}) + pr_{ij} & if\ single\ person\ family\ after\ 21\ Sept\ 2022\ and\ nh_{ijk} = 1 \\ 0.4 \times 0.8 \times \min(1, 2/(1 + ns_{ijk})) + pr_{ij} & if\ single\ person\ family\ after\ 21\ Sept\ 2022\ and\ nh_{ijk} = 0 \\ pr_{ij} & if\ other\ family\ or\ before\ 22\ Sept\ 2022\ and\ nh_{ijk} \geq 2 \\ 0.8/(1 + ns_{ijk}) + pr_{ij} & if\ other\ family\ or\ before\ 22\ Sept\ 2022\ and\ nh_{ijk} = 1 \\ 0.8 \times \min(1, 2/(1 + ns_{ijk})) + pr_{ij} & if\ other\ family\ or\ before\ 22\ Sept\ 2022\ and\ nh_{ijk} = 0 \end{cases}$$

where

$$pr_{ij} = 0.2 \times \min(1, 2/f_{ij})$$

and pr_{ij} is the probability a family is selected randomly from household j, $f_{ij}$is the number of eligible families in household j, nh_{ijk} is the number of eligible families at a higher level of priority than family k in household j, and ns_{ijk} is the number of eligible families at the same level of priority as family k in household j.

Person weights

The person weight for person l in family k (PW_{ijkl}) is calculated by multiplying the family weight for family k by two if there are two adults in the family, and by one if there is one adult in the household. This makes an implicit assumption that each adult in the family is equally likely to be selected for the survey. This is unlikely to be true, as the primary caregiver is asked to undertake the survey and more females than males were selected as a result. The post-stratification process outlined below helps remedy this.

Non-response adjustment

A non-response adjustment was made to these initial household weights, to allow for differential household level non-response. Household selection weights were scaled up by the reciprocal of the PSU level response rate.

The adjusted weight for the k^{th} family in the j^{th} household in the i^{th} PSU (FW^{*}_{ijk}) can be calculated by:

$$FW^{*}_{ijk} = \frac{FW_{ijk}}{rr_i}$$

where

$$rr_i = \frac{A_i(A_i + B_i + D_i)}{(A_i + D_i)(A_i + B_i + C_i + D_i)}$$

and rr_i is the estimated response rate in PSU i, and A_i, B_i, C_i, and D_i are the number of respondents, ineligible non-respondents, unknown eligibility non-respondents, and eligible non-respondents in PSU i respectively.

Similarly, the adjusted weight for the l^{th} person in the k^{th} family in the j^{th} household in the i^{th} PSU (PW^{*}_{ijk}) can be calculated by:

$$PW^{*}_{ijk} = PW_{ijk} \times \frac{PW_{ijk}}{rr_i}$$

Post stratification

One challenge of the NZISS sample is that the size of the total population was not known in advance, as there are no publicly available estimates for the population of people who met the criteria for selection for the survey. It is difficult to establish the number of people who may be potentially eligible for the income support payments covered by the survey.

It was possible, however, to calculate the number of people and families who were receiving these payments. This was done using data from MSD and IR and held in Statistics NZ's Integrated Data Infrastructure (IDI). This provided a set of benchmarks for those respondents who reported receiving one of the payments (main benefit, Accommodation Supplement, or Working for Families tax credits).

The post-stratification was therefore undertaken in two stages:

1. In the first stage, person and family weights for respondents who reported receiving one of the payments were post stratified directly to the IDI benchmarks.
2. In the second stage, calibration factors were calculated from the first stage post-stratification results and applied to the remaining respondents, who were potentially eligible for a payment, but did not report receiving one.

Stage 1

Family weights were post-stratified by family type (single or couple, with or without children) and NZDep decile groupings (1-6, 7-8, 9, and 10).

Person weights were post-stratified by sex, age group (18-24, 25-34, 35-44, 45-54, and 55-64), and Māori ethnicity (yes/no).

Stage 2

Calibration factors for **family weights** were calculated by summing the post-stratified family weights and dividing these by the non-response adjusted family weights within each family type. This resulted in four calibration factors ranging from 0.8 for families with a partner and children to 3.0 for single people with no children. These calibration factors were multiplied by the non-response adjusted weights for respondents whose weights could not be post-stratified directly (those not receiving a payment).

The final NZISS family weights after post-stratification ranged from 36.5 to 5,000, with an average of 527.0 and a coefficient of variation of 1.51.[12]

Calibration factors for **person weights** were calculated by summing the post-stratified person weights and dividing these by the non-response adjusted person weights within each family type by Māori ethnicity. This resulted in eight calibration factors ranging from 0.7 for non-Māori parents with a partner and children, to 2.0 for a Māori single person with no children. These calibration factors were multiplied by the non-response adjusted weights for respondents whose weights could not be post-stratified directly (those not receiving a payment).

The final NZISS person weights after post-stratification ranged from 50 to 8,000, with an average of 649.1 and a coefficient of variation of 1.49.[13]

Replicate weights

Replicate weights are used to calculate standard errors for estimates derived from NZISS data. The sampling design for NZISS is complex and deriving exact formulas for estimates is problematic. In addition, using replicate weights means that information on membership of a PSU does not have to be provided to the data analyst, providing further protection of respondent identity.

Replicate weights were calculated using the delete-a-group jackknife method to accommodate the sample design and weighting for the NZISS.[14]

The delete-a-group jackknife, like other resampling methods, uses the variation between the results for many sample 'replicates' to estimate sampling variances (excluding imputation effects).

Replicates were created by first randomly dividing the PSUs into equal groups, then omitting one group from the sample to form each replicate. Each replicate can equivalently be thought of as assigning the 'omitted' group zero weight (and increasing the weights for other respondents to compensate) instead of removing them from the dataset. For NZISS, 100 replicates were used. That is, the 282 PSUs, were randomly divided into 100 groups of 2 or 3 PSUs, each of which formed the omitted group for one replicate.

Post-stratification and calculation of replicate weights was done using the GREGWT macro, created by the Australian Bureau of Statistics.

[12] In the first stage of post-stratification, family weights were set to a minimum of 50 and a maximum of 5,000, to ensure all respondents would be adequately represented in the final results, and that no respondent would have too large an influence. These decisions represent a trade-off between efficiency and robustness. The upper cap was carried over to the second stage of post-stratification.

[13] In the first stage of post-stratification, person weights were set to a minimum of 50 and a maximum of 8,000.

[14] Kott, P.S. (1998). Using the Delete-a-Group Jackknife Variance Estimator in Practice, *Proceedings of the Annual Meeting of the American Statistical Association, Section on Survey Research Methods*, pp 763-768. http://www.asasrms.org/Proceedings/papers/1998_130.pdf

Levels of accuracy achieved using the replicate weights

As part of the design of the survey, it was intended that key estimates at the population level would be accurate to within a maximum ± five percent, and that estimates at the sub-group level, or estimates for questions that had filtered respondents based on their responses to prior questions, would be accurate to within a maximum of ± ten percent (assuming a large enough number of respondents were asked).

Table 22 below displays selected key estimates at the population and sub-group levels, and their margin of errors.

Table 22: Margin of error for selected estimates.

Category	Number of respondents	Estimate	Margin of error
Population level statistics			
Awareness of Temporary Additional Support	1,852	55.4% not aware	± 4.2%
Awareness of Childcare Subsidy/OSCAR Subsidy	1,018	55.4% aware	± 5.4%
Awareness of Best Start	1,018	50.3% aware	± 5.4%
Accommodation Supplement receipt among eligible	915	43.9% receiving	± 5.8%
Sub-group level statistics			
Awareness of Accommodation Supplement for male respondents	629	53.5% aware	± 6.5%
Awareness of Best Start for Māori respondents	332	54.8% aware	± 7.8%
Accommodation Supplement receipt among eligible renters	555	53.6% receiving	± 7.4%
2021/22 tax year receipt of family tax credit (including imputation) among eligible Pacific peoples*	124	80.3% receiving	± 20.8%

* Note that this result was not published as part of the main findings packs due to its high margin of error. It has been included here as an example of a case where a small count of respondents leads to a high margin of error being recorded.

Generally, key population level estimates from the survey contained margin of errors between four to six percent, with sub-group estimates containing higher margins of error. However, there were also cases where population level estimates (rarely), or sub-group estimates (more commonly, particularly for respondents in younger and older age groups, Pacific peoples, and Asian respondents) were above the targeted margins of error. Generally, the smaller the pool of respondents that answered the question, the higher the margin of error estimates. Due to the achieved sample not reaching our initial targets, some of these higher margins of errors can be attributed to this, as this would have resulted in respondents potentially having higher weights assigned to them, than they would have otherwise had, therefore increasing the variability of estimates.

In the *'Analysis of categorical responses to the NZISS'* section of this report, we detail how we handled categories with margin of errors that were above ± 10 percent, or that had high relative standard errors.

Benchmark counts versus observed counts from the survey

Using this weighting system, we then estimated the number of survey respondents who were receiving payments of interest (such as main benefits, AS, or the family tax credit component of WFF). We can compare these against the benchmark figures to observe how accurate the weights are for estimating receipt of payments, and whether any changes needed to be made.

Table 23 below shows how the survey results for key payments of interest compared against the benchmarks from the IDI. Generally, the survey results were within 10 percent of the IDI benchmarks.

Table 23: Comparison between IDI benchmarks and survey results, for key payments.

Payment	IDI benchmark families	IDI benchmark individuals	Survey result families	Survey result individuals
Main benefits (as at end June 2022)	342,594	361,968	318,377	350,623
Accommodation Supplement (as at end June 2022)	288,435	318,486	293,566	334,969
Family Tax Credit (21/22 Tax Year)	238,080	314,427	210,345	287,578

Undercounts of the number of individuals and families receiving main benefits in the survey could possibly be attributed to the way this information was collected, as respondents were asked to self-complete the section in which this information was collected.

Undercounts of the number of individuals and families receiving family tax credit payments in the 2021/22 tax year can possibly be attributed to three factors:

- Firstly, the wording of individual questions meant we asked if the respondent themselves was receiving the family tax credit, as opposed to the family.
- Secondly (and possibly related), in families that were couples with children, we often observed differences in awareness and self-reported receipt of family tax credit payments, by the gender of the parent. Respondents who were not aware of payments, were not asked questions about receipt.
- Finally, there may have not been sufficient information from other survey responses to allow for imputation of receipt.

This suggests that some families who were receiving family tax credit payments were missed by the survey, due to the way the questionnaire was conducted, as well as the wording of individual questions.

Given the limitations of the approach used, these results were considered acceptable for our analysis.

Analysis of categorical responses to the NZISS

Introduction

This section describes the process used by MSD and IR to produce 'findings packs' from the categorical responses to the NZISS.

Estimating proportions and totals

Most statistics in the NZISS findings packs produced by MSD and IR are proportions or totals. That is, survey estimates of:

- the proportion (or percentage) of people with a particular characteristic, or who said a particular response, such as their age group, or their awareness of a payment
- the total numbers of people with a particular characteristic, or who said a particular response.

A description of these types of statistics follows. References to weighted values refer to the final calibrated weights discussed in the 'Weighting' section.

Calculating proportions

The proportion of the population who belong to a particular group (such as the proportion of the population who are aged 25 to 34) was estimated by calculating the sum of the weights of the respondents in the group divided by the sum of the weights of all respondents.

The proportion of people in a population group who belong to a subgroup (such as the proportion of respondents aware of a given payment, who are aged 25 to 34) was estimated by calculating the sum of the weights of the respondents in the subgroup (aware respondents who are aged 25 to 34) divided by the sum of the weights of the respondents in the population group (aware respondents).

Calculating totals

Estimates of totals were given by calculating the sum, over all the respondents, of the weight multiplied by the variable of interest. For example, the estimate of the total number of people aged 25 to 34 in the whole population would be given by the sum, over all respondents, of the weight multiplied by a binary variable indicating which respondents were aged 25 to 34. This is equivalent to the sum of the weights of the respondents who were aged 25 to 34 in the population.

"Don't know/prefer not to say" responses

Where possible, we reported on the total number and the proportion of respondents that said they didn't know or preferred to not respond to questions. We treated this type of response as an "uncertain" response to many questions within the survey.

Where the number of respondents who chose "don't know" or "prefer not to say" was small, or the relative sampling error was high, we aggregate these with other categories that were similar (for example, when asking if someone was aware of a payment, we might aggregate "don't know" or "preferred not to say" responses with those who said they were not aware). Where this was not possible, we excluded these responses from the analysis, and recalculated proportions and totals without them. The approach taken for each set of results was noted.

Handling of "unknown" ethnicity responses

Due to the way the survey was structured, 16 respondents who had someone else answer on their behalf were never asked for their ethnicity. This means they are coded within the NZISS dataset as having an unknown ethnicity. Typically, these respondents would be excluded from ethnicity sub-group calculations.[15] However, due to the small numbers, and because these unknown responses were not random, excluding these respondents from ethnicity sub-group calculations would result in results for this group being able to be derived from the data, including potentially identifiable information. As a result, the decision was made to include these respondents within totals for "non" ethnic groups (e.g., non-European). Labelling within data files and findings packs reflect this decision.

Scale responses

Many questions within the NZISS utilised a scale response (such as Likert scales). In findings packs, we grouped together these scale responses to form logical groupings for presentation and analysis and presented these as proportions. This was because this method worked well with the approach we took to determining statistical significance, as well as the evidence needs of MSD and IR. Details about how individual questions were handled were noted.

Verbatim responses

Many questions in the NZISS allowed respondents to provide "other" answers to the questions if none of the pre-coded answers were suitable for their circumstances. These other responses were manually recoded and presented as proportions within findings packs where appropriate. More information on how this was done is available in the 'Analysis of verbatim responses to the NZISS' section.

[15] For an example of how ethnicity proportions are typically calculated at MSD, see: https://www.msd.govt.nz/documents/about-msd-and-our-work/tools/how-we-report-ethnicity/total-response-ethnicity-summary-of-changes.pdf

Confidentiality

As part of the publication of the findings packs, MSD and IR have a responsibility to NZISS participants to keep their personal information safe. This meant applying aggregation and suppression rules to findings packs where counts of respondents who selected certain answers is low. These rules are applied when:

- category counts are less than six
- the margin of error of an estimate is larger than 20 percentage points
- the relative sampling error for a category is above 50 percent.

In these cases, either the category is aggregated with another category, or the category is omitted from tables and charts in a way that does not allow the omission to be unwound by reverse calculating off other data contained in the published version. Categories with a margin of error between 10 to 20 percentage points, or a relative sampling error between 20 and 50 percent are flagged, to be viewed with caution.

Calculating confidence intervals

Confidence intervals presented in the findings packs were calculated using the normal approximation method. The upper and lower limits of the 95 percent confidence interval were found by calculating:

estimate ± 1.96 x standard error of the estimate

Statistical significance

The findings packs use the 95 percent confidence intervals of the data to determine statistically significant results. This was done by seeing whether the confidence intervals for two items of data overlapped or not. Overlapping confidence intervals are taken to mean that differences are not statistically significant, while non-overlapping confidence intervals are taken to mean that differences are statistically significant.

This was a conservative approach to determining statistical significance; however, it is a useful way to visualise whether the differences between two items of data are significantly different.

Statistically significant results were identified in one of two ways. They were either identified by comparing sub-group results against:

- the survey average
- other results within that sub-group breakdown (for example, other age groups).

These were then double checked as part of the quality assurance process to ensure that no results were missed.

Utilising other statistical methods (such as chi-squared tests) might have resulted in some differences in which findings were identified as statistically significant or not, particularly in fringe cases.

Analysis of verbatim responses

Introduction

Several questions in the NZISS required qualitative data analysis. These were questions that included an answer that participants could elaborate on. For example, 'other-please specify' questions, open-ended questions that could elicit long-form responses, and follow-up questions that asked why a ranking was given.

Methods

Thirteen questions included answers that could be recoded to an existing response option or recoded to a new bespoke option. Thematic analysis was used to guide our analysis of those answers.[16] The analysis took the following steps.

1. Familiarisation with the existing response options.
2. Looking through the responses and identifying possible new codes.
3. Individually coding each response to either existing codes, or new codes.
4. Reviewing and revising the codes that had been created.
5. Defining and naming the codes to ensure they accurately reflected the responses coded to them.
6. Writing up findings and summarising the codes created.

Two questions required deep dive analysis. These were open ended questions without predetermined responses. The coding for the responses followed a similar process to that outlined above, with codes created to capture the range of responses. Two coders worked together to code these responses, and cross checked the other's work to ensure consistency.

Validity assessment was addressed by ensuring that codes were consistently applied across all responses. This was conducted by reviewing all the responses multiple times to ensure consistency and checking the need for creating new codes.

The summary of analysis was reviewed by multiple people, including people who were unfamiliar with the work. Adjustments were made based on their feedback.

Once complete, the results of the analysis were attached to the primary NZISS analysis dataset and incorporated into the findings pack analysis where appropriate.

[16] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77−101. doi.org/10.1191/1478088706qp063oa

Appendix A: Treasury population modelling estimates

Estimated percentage of households that contain at least one family, couple or individual in the target group for the survey by the types of groupings that are in the household:

NZ Deprivation level		1	2	3	4	5	6	7	8	9	10	All
Estimated number of households		181,000	189,000	168,000	167,000	173,000	187,000	188,000	185,000	201,000	185,000	1,823,000
Family type	At least one sole parent	3%	4%	3%	5%	6%	5%	8%	9%	12%	19%	8%
	At least one couple parent	10%	11%	11%	14%	13%	14%	13%	15%	16%	18%	14%
	At least one single no children	16%	15%	16%	17%	20%	23%	26%	29%	31%	35%	23%
	At least one couple no children	10%	10%	10%	11%	10%	12%	11%	10%	12%	11%	10%
Total		**49,000**	**54,000**	**52,000**	**60,000**	**66,000**	**78,000**	**84,000**	**92,000**	**107,000**	**116,000**	**758,000**

Note: These estimates only take account of income and do not consider the asset test for Accommodation Supplement. Estimates of the proportion of households with singles or couples potentially eligible for the survey will be overstated as a result, especially in lower deprivation areas.

Appendix B: CAPI/CASI programming QA

Quality assurance testing was undertaken on the programmed survey to ensure:

- question and response text matched the supplied questionnaire document
- multi / single response questions allowed multiple and single responses as applicable
- response ranges were within the boundaries defined by the survey
- text could be entered for questions allowing free text 'Other' responses
- all previously entered response options were removed when the 'reset answers' button was selected
- unique responses could not be selected along with other responses in multiple choice questions (e.g., you shouldn't be able to select 'Don't know' along with any other response options)
- skip instructions worked correctly for questions with this type of logic instruction
- where a question had no skip instructions, all response options were checked to ensure they went to the next question
- logic test cases were executed
- the ability to go back through the questionnaire to make corrections to previous entries was also tested.

Appendix C: COVID-19 infection control measures

To ensure the safety of respondents and interviewers in relation to COVID-19, the following measures were implemented:

- interviewer training on infection control (hand washing, mask use etc.)
- physical distancing on the doorstep and during the interview
- cleaning and sanitising of equipment and hands before and after the interview
- interviewer and household wellbeing checks
- record keeping, including GPS tracking of interviewer movements
- option to complete the interview via video (CAVI) for those who were isolating or were uncomfortable with the interviewer being in their home.

Appendix D: Survey routing error impacts

A survey routing error was identified following the conclusion of the NZISS that impacted the in-work tax credit section of the survey.

Two groups of respondents who should have been asked questions in the in-work tax credit section of the survey, but were not, were respondents with:

- a youngest child aged 14 or older
- incomes above the family tax credit cut-off but below the in-work tax credit cut-off.

The immediately preceding section of the survey was about childcare and childcare assistance and was not a required section for these two groups of respondents.

This error had a range of impacts on the results.

Awareness of in-work tax credit

It had a **minor** impact on our results around awareness of the in-work tax credit. This is because while respondents would not have had a second opportunity to say they were aware of the payment, it would not have changed the findings in a statistically significant way.

Receipt of in-work tax credit

It had a **minor** impact on our calculated receipt of the in-work tax credit. This is because while respondents would not have provided a direct response to the question and did not receive a reminder of what the payment is, they did have an opportunity to provide a self-response answer at the end of the survey.

Additionally, we were able to use answers to other questions in the survey to identify respondents who looked like they were receiving the payment with a high degree of confidence.

Changes respondents made because of the in-work tax credit

It had a **significant** impact on our analysis of what changes respondents had made or would make because of the in-work tax credit they received. This is because the analysis was missing a significant number of respondents who should have been asked the question. Given the differences in characteristics between those who were and were not routed into this section, this may have skewed the findings as a result. The results for this section are most generalisable to WFF recipients with lower incomes and younger children.

Questions about income support payments making working worthwhile/helping to meet family's needs

It had a **major** impact on our analysis of whether income support payments make working worthwhile/help to meet family's needs. This is because a non-trivial number of respondents were not asked this question when they should have been. This is balanced by the fact that in our analysis we filtered out respondents who said they received none of the income support payments asked about which reduced the total number of those not asked the questions who should have been. Despite this, the results for this section are most generalisable to WFF recipients with lower incomes and younger children.

Table 24 below shows the characteristics of respondents who looked eligible for the in-work tax credit, by whether they were asked the questions in the in-work tax credit section of the survey.

Table 24: Characteristics of respondents who looked eligible for the in-work tax credit, by if they were asked in-work tax credit questions.

	Asked		Not asked	
	Total respondents	**Weighted percentages**	**Total respondents**	**Weighted percentages**
Family type				
Couple with children	260	52.1%	153	64.7%
Single with children	134	47.9%	49	35.3%
Ethnicity				
European	218	63.2%	122	59.8%
Māori	117	25.9%	33	11.2%
Pacific	62	10.9%	29	8.6%
Asian	46	13.6%	40	24.3%
Gender				
Male	97	25.8%	61	33.6%
Female	289	73.4%	140	66.4%
Age group				
18-34 years	159	33.9%	59	25.8%
35-44 years	151	44.4%	64	26.9%
45-54 years	70	19.3%	59	36.6%
55-64 years	14	2.3%	19	10.8%
Age group youngest child				
0-2 years	140	27.5%	47	17.3%
3-4 years	52	15.2%	18	8.0%
5-13 years	202	57.2%	59	33.4%
14+ years	0	0.0%	78	41.2%
Shared care				
Yes	51	18.0%	17	7.2%
No	343	82.0%	185	92.8%

Appendix E: Survey communications

Invitation letter

Survey brochure

How is my privacy protected?

The information you provide is protected by the Privacy Act 2020, and by the safeguards we have put in place. This means:

- the interviewer cannot discuss your information with anyone else
- only approved researchers can use the data, once any information that might identify you has been removed
- your name and any identifying details will never be linked to your answers and will never be included in any published materials
- the answers you give in the survey are added to other people's answers to create grouped results.

Where can I find the survey results?

The results of the survey will be published on the Ministry of Social Development website in 2023:
msd.govt.nz/supportsurvey

Need more information?

For more information on the New Zealand Income Support Survey, see: Ministry of Social Development website:
msd.govt.nz/supportsurvey
Or contact CBG Public Sector Surveying on:
Free phone 0800 478 783
Free txt 8009
Email info@cbg.co.nz

Thank you for reading this pamphlet.

MINISTRY OF SOCIAL DEVELOPMENT
TE MANATŪ WHAKAHIATO ORA

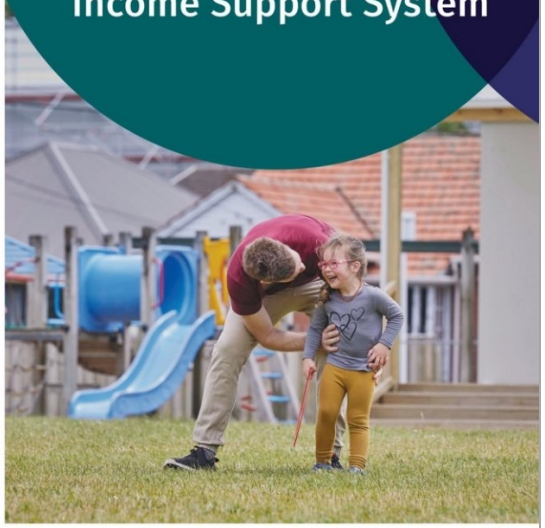
Inland Revenue
Te Tari Taake

CBG
PUBLIC SECTOR SURVEYING

New Zealand Income Support Survey

New Zealand Income Support Survey

Help shape New Zealand's Income Support System



New Zealand Income Support Survey

What is the New Zealand Income Support Survey?

The New Zealand Income Support Survey is collecting information on people's awareness of available income support payments, and experiences in applying for them. This will be used to help improve New Zealand's income support system.

Who is asked to take part?

Households from across New Zealand are randomly selected. From each selected household, one or more adult will be invited to check their eligibility for the survey, and to take part. Approximately 2,000 people will be invited to take part.

You don't have to be receiving income support to be able to take part in the survey.

We greatly appreciate your participation, but you can refuse if you wish.

Who is carrying out the survey?

The survey is being carried out on behalf of the Ministry of Social Development and Inland Revenue by CBG Public Sector Surveying, an independent New Zealand-based research company with 25 years' research experience.

What information is collected?

The New Zealand Income Support Survey will collect information about:

- knowledge of income support payments
- experience and ease of accessing income support payments
- family/whānau/aiga wellbeing, children, paid work, income adequacy, and health
- childcare costs and affordability.

This information will help researchers understand how people in different situations and with different experiences are getting on.

How long does the survey take?

The interview takes about 30-60 minutes. Interviews can be done at a time that suits you. They can be done in Te Reo Māori or another language.

As a koha and a thank-you for taking part, everyone interviewed for the survey will receive a $30 gift card.

What is the information used for?

Researchers from the Ministry of Social Development and Inland Revenue will use the information to better understand how the income support system affects people, and to help improve the income support system. Other approved researchers, like university researchers, may also use the information for research.

How will this work while keeping my information safe?

Any information you provide will be anonymised – these researchers will not be able to identify you from the information they receive. No one else at the Ministry of Social Development or Inland Revenue will have access to this information.

If you receive any payments from Work and Income or Inland Revenue, the answers you give will not in any way affect what you receive. Your name will not be visible to any Ministry of Social Development or Inland Revenue staff.

Other possible uses

In the future, we may want to contact you about follow-up research on income support in New Zealand.

We will only invite you to take part in follow-up research if you consent to this at the end of the interview. If you are invited to take part in any future studies you are free to refuse if you do not want to take part.

Thank you card

If you would like further information or advice about the payments or topics covered in the survey, you can contact:

The **MSD** general enquiries team: Monday to Friday, 7am to 6pm or Saturday, 8am to 1pm. **0800 559 009**. Or have a look at the Work and Income website **Check what you might get: check.msd.govt.nz**

Inland Revenue (for advice about Working for Families tax credits): Monday to Friday, 8am to 6pm, Saturday, 9am to 1pm. **0800 227 773**. Or have a look at the Inland Revenue website **Working for Families: www.ird.govt.nz/working-for-families**

SmartStart (for finding the right services for you and your child): **smartstart.services.govt.nz**

Other organisations that provide help and advice:

Citizens Advice Bureau **0800 367 222** | **www.cab.org.nz**

Community Law Centres o Aotearoa. Our Law Centres: **communitylaw.org.nz/our-law-centres/**

Family Services Helpline for help finding community based health and social support services in your area **0800 211 211**

Healthline for general health advice **0800 611 116**

Plunketline for advice about child health or parenting: **0800 933 922**

Need to talk? Free call or text anytime **1737**
This service is for anyone who is feeling anxious, down, a bit overwhelmed, or who just needs someone to talk to.

Lifeline **0800 543 354** or free text **4357**

Youthline **0800 376 633** or free text **234**

OUTline NZ for confidential support for sexuality or gender identity issues (available every evening, 6-9pm) **0800 688 5463**

Depression Helpline **0800 111 757** or free text **4202**

Anxiety Helpline **0800 269 4389**

Health and Disability Advocates (available Mon–Fri, 8:30am–5pm) **0800 555 050**

Information from this survey will be used to better understand people's experiences of the income support system, and help improve the lives of New Zealanders.

Inland Revenue
Te Tari Taake

MINISTRY OF SOCIAL DEVELOPMENT
TE MANATŪ WHAKAHIATO ORA

New Zealand Income Support Survey

Thank you for taking part in the New Zealand Income Support Survey.

FreePost Authority Number 223854

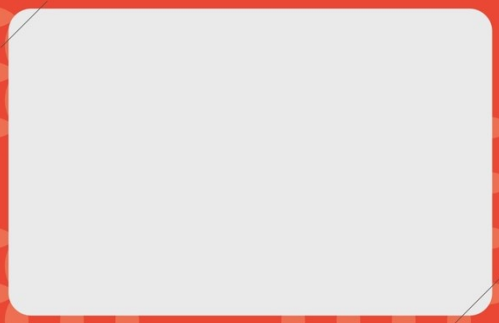
CBG PUBLIC SECTOR SURVEYING

Free

NEW ZEALAND INCOME SUPPORT SURVEY
CBG Health Research
PO Box 45173
Te Atatu
Auckland 0651

To provide feedback please complete the back of this mailer and send freepost
Alternatively free phone 0800 478 783, or email info@cbg.co.nz

Please accept the attached gift card in appreciation of your time and effort. Your contribution will make a difference.



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For more information, visit bonfire.co.nz

If you would like more information about the survey or would like to become a CBG interviewer, please contact CBG Public Sector Surveying on 0800 478 783 or visit www.cbg.co.nz

If sending feedback remove the top part, fill in the comments below, seal closed and pop in the post – no stamp needed.

Please provide us with your feedback or any additional comments below.

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Contact details

Leave your contact details blank if you wish to remain anonymous.

Name/details of interviewer .....

.....

Your name .....

Contact number/s .....

Address .....

.....

.....

Email .....

COVID-19 flyers

COVID-19
Symptoms

Symptoms include

- new or worsened cough
- high temperature of at least 38°C
- shortness of breath
- sore throat
- sneezing and runny nose
- temporary loss of smell

These symptoms don't necessarily mean you have COVID-19. The symptoms are similar to other illnesses that are much more common, such as cold and flu. Shortness of breath is a sign of possible pneumonia and requires immediate medical attention.

If you have any symptoms

If you have these symptoms call **Healthline for free on 0800 358 5453** or call your doctor immediately. Please also notify CBG Research on 0800 478 783.

- If you're sick, stay home. Don't go to work or school.
- Don't socialise.
- Wash your hands.
- Sneeze and cough into your elbow, and regularly disinfect shared surfaces.

If you are told by health authorities to self-isolate you must do so immediately. If you are awaiting test results you must also self-isolate.

CBG HEALTH RESEARCH
0800 478 783
www.cbg.co.nz

For more information, visit www.covid19.govt.nz

COVID-19
What we're doing to keep everyone safe

Research is critical at this time, to measure the wellbeing and experiences of the nation. For this reason we must continue household interviewing, but in a way that protects everyone's health.

Here's what we're doing:

Physical distancing

When your interviewer visits, they will keep their distance from you and any other household members at all times.

Vaccination

Your interviewer is fully vaccinated.

Face masks

Your interviewer will be wearing a face mask.

Video interviewing

If you prefer, you can complete your interview online, with one of our friendly interviewers.

Interviewer training

Your interviewer completes regular training on COVID-19 infection control.

Cleaning and sanitising

Interviewers maintain strict cleaning and sanitising practices and are equipped with kits containing:

- Commercial grade hand sanitiser
- Disinfectant spray effective against 99.9% of viruses
- Single-use disinfectant wipes
- Disposable gloves and bags for sealing and disposing of cleaning materials

Interviewers sanitise their hands before touching any equipment, and clean all equipment surfaces before and after calling at each household.

Household wellbeing checks

We'll check-in with you following the interviewer's visit, to ensure that you were happy with the experience and to answer any questions you may have.

Record keeping

Our interviewers carry a GPS device that tracks their movements. This allows us to keep a record of the places and people they've visited. Interviewers also carry a QR code that you can scan.

Interviewer wellbeing checks

Interviewers are not permitted to work if they (or anyone in their household) is feeling unwell. Any person with COVID-19 symptoms will be tested immediately.

CBG HEALTH RESEARCH
0800 478 783
www.cbg.co.nz