

Technical Report- 2021 Health, Work and Retirement (HWR) survey

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Report Prepared by

Jessica Thompson

Hannah Phillips

Joanne Allen

Health & Ageing Research Team

Massey University

Background: The 2021 Health, Work and Retirement survey

The New Zealand Health, Work & Retirement (HWR) study is an initiative of Massey University's Health & Ageing Research Team (HART). The HWR study aims to track and describe factors associated with health, retirement and 'ageing well' in the older New Zealand population. Since commencing in 2006, study methods have included a biennial longitudinal postal survey, face to face qualitative and cognitive interviews, an online survey pilot, data linkage with national health and mortality records, and data linkage to ACC records. Participant cohorts in the HWR have been drawn from random samples of persons aged over 55 years who are listed on the New Zealand electoral roll, on which approximately 97.6% of eligible voters aged over 55 years are enrolled¹. In 2006, 2016, 2018 and 2020 the population samples have included an over-sampling of persons listed on the electoral roll as being of Māori descent, to adequately represent this important section of the older New Zealand community.

The 2021 HWR postal survey, which is the focus of this report, represents the 15-year follow up of the original cohort recruited in 2006, the 12-year follow-up of cohorts recruited in 2009, the seven-year follow-up of the cohort recruited in 2014, the five-year follow-up of the cohort recruited in 2016, the three-year follow-up of the cohort recruited in 2018, and the one-year follow-up of the cohort recruited in 2020. Follow-up of the cohort recruited in 2010 was concluded in 2012.

The 2021 HWR survey has a focus on the impact of COVID-19.

Investigators

Professor Christine Stephens, Professor Fiona Alpass, Associate Professor Mary Breheny, Mr Brendan Stevenson, and Dr Joanne Allen

Other project team members

Ms Vicki Beagley, Ms Hannah Phillips, Ms Jessica Thompson

Ethics and funding

HEC: This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application SOB 21/28.

Funding: Health Research Council of New Zealand

¹ Accessed from the New Zealand Electoral Commission, 18th January, 2017: <http://www.elections.org.nz/research-statistics/enrolment-statistics-electorate>. Calculations based on estimated population statistics as at 30 June 2016 (Provisional) using 2013 census data and enrolment statistics as at 31 December 2016

Method

The 2021 Health, Work and Retirement survey comprised a 16-page postal survey to persons who had participated previously in the survey between 2006-2020 ('existing' cohort). All materials sent to participants are provided in Appendix 1.

Existing participants were sent:

- an **initial approach** comprised of an introductory letter, information sheet, pen, survey booklet and reply-paid return envelope (28th July, 2021);
- a **first reminder** sent 3 weeks later, comprised of a postcard thanking persons who had returned the survey and asking those who had not to do so (16th August, 2021), and;
- a **second reminder** to those who had not returned the survey (or otherwise notified as being lost to contact, deceased or withdrawn) after 12 weeks from the initial contact, comprised of a final reminder letter, information sheet, survey booklet and a reply-paid return envelope (26th October, 2021).

To facilitate future follow-up of existing participants, the last page of their survey booklet included a form on which participants were given the option to provide their phone number and email address and to update their postal address if necessary.

Participant sample

Existing participants (N = 5265)

Inclusion criteria

Persons who were from cohorts recruited in 2006, 2009, 2014, 2016, 2018 and 2020 were surveyed in 2021 if they were not excluded (deceased, relocated overseas, withdrawn from the study, had not responded since 2014 or earlier) or lost to contact (that is, there was evidence that persons no longer lived at the address and forwarding details were not available, including: mail RTS and no forwarding details available AND phone disconnected OR phone contact indicated the person was no longer at the premises and no forwarding address was available).

Demographic profile

The age, gender and Māori descent profile of existing participants approached for participation in 2021 by recruitment year are presented in Figure 1.

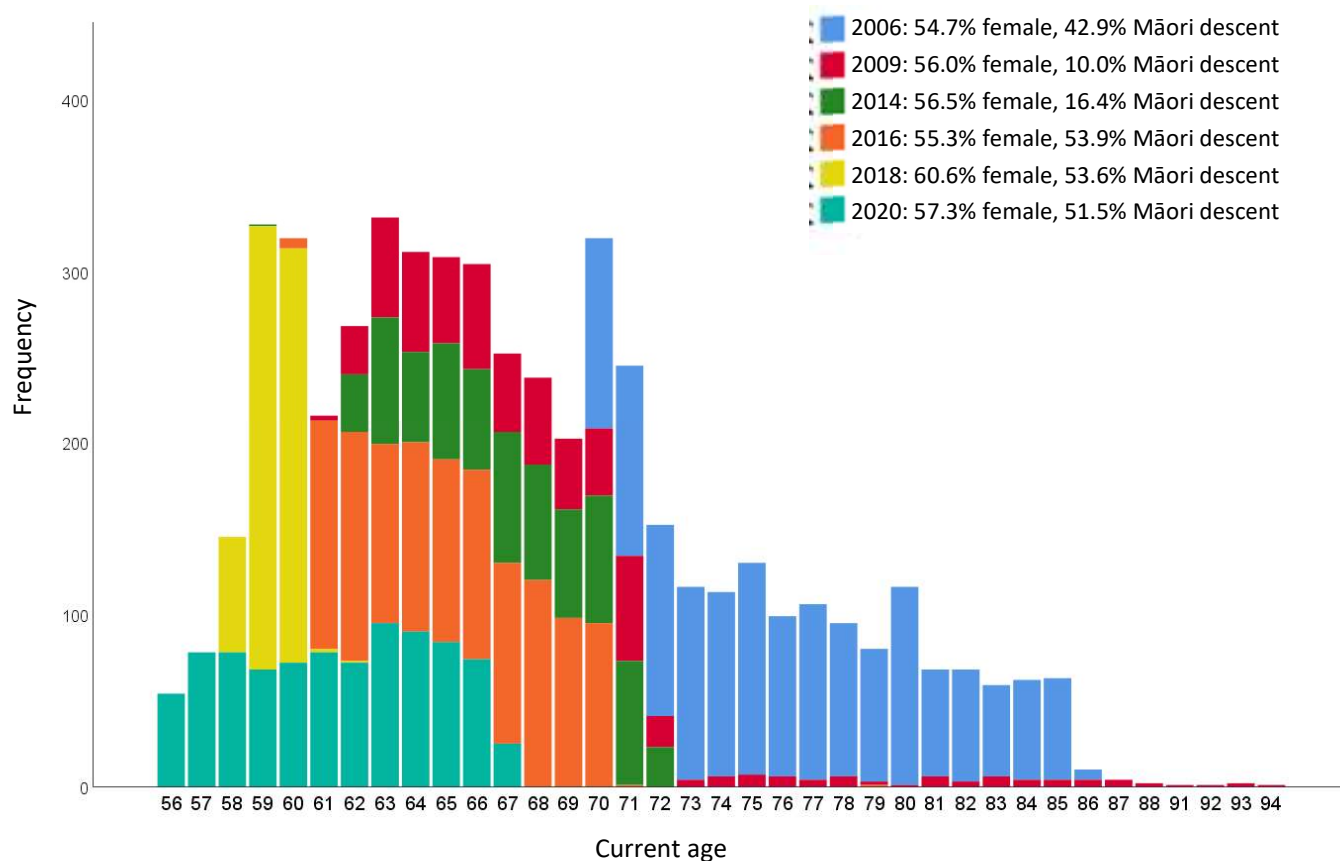


Figure 1. Frequency of age by cohort.

2021 survey response

Of the existing (recruited between 2006-2020) longitudinal participants surveyed in 2021 ($n = 5265$) a total of 4088 responses to the 2021 survey were received. $N = 11$ were excluded due to mismatch between previously recorded and reported demographic (date of birth, gender) data. As such, $n = 4075$ (77.4%) survey respondents were included in the 2021 dataset and deemed to have returned a completed survey.

The response rate for persons not indicated as being of Māori descent ($n = 2545$, 81.6%) was higher than the response rate for persons indicated as being of Māori descent ($n = 1525$, 70.8%). There was little difference in the response rate for men ($n = 1757$, 76.1%) and women ($n = 2317$, 78.1%).

Of the 1190 existing participants who did not return a completed survey, 2 returned a blank survey, 33 were notified to the study as being recently deceased, 43 contacted the study to withdraw, 71 were considered lost to contact (returned to sender/gone no address postal sticker on returned mail), and 1041 did not respond.

Response cleaning

The gender and date of birth reported by responders to the 2021 survey were assessed for consistency against those previously reported (gender, date of birth) and information from the electoral roll (gender, year of birth range). A one-digit difference in reported day OR month OR year of birth was allowed as long as reported gender also matched previous records (e.g., reported date of birth and gender 25/05/1958 Female vs. existing record of 27/05/1958 Female 1957-1958). Where it was apparent that a mix-up between dd/mm/yyyy and mm/dd/yyyy formats had occurred, a match was also recorded as long as the remaining information matched existing records for the participant (e.g., reported date of birth and gender 11/12/1954 Male vs. existing record of 12/11/1954 Male 1954-1955). Similarly reported gender could vary as long as reported date of birth was consistent with previously reported date of birth, electoral start/end year (i.e., 25-May-1958 Male vs. existing record 25-May-1958 Female 1958-1959).

N = 11 responses received reported combinations of gender and/or date of birth that were considered inconsistent with recorded data. These survey responses were excluded from the dataset and noted as not responding to the survey. The participant was considered lost to contact but participant's study participation status remained 'active'. N = 15 participants reported neither their date of birth or gender in the 2021 survey and were considered matches by default. Gender and approximate age values for these participants were obtained from electoral roll details and input into the dataset.

Response rate by cohort

Overall, $n = 4075$ (77.2%) survey responses to the 2021 survey were received. Table 6 presents data on response rate by cohort for the cohort's original year of recruitment and 2021 survey response.

Table 6. Approach size and response rate by cohort at original approach and 2021 survey.

Year cohort recruited	Approach and response at original recruitment			Approach and response at 2021 survey			2021 response rate as % of original approach sample
	Sample size	<i>N</i> response	% response	Sample size	<i>N</i> response in 2021	2021 response rate	
2006	13045	6661	51.5%	1454	1247	85.76%	9.56%
<i>GS/GM</i>	5264	3103	58.9%	869	762	87.69%	14.48%
<i>MS</i>	7781	3558	45.7%	585	485	82.91%	6.23%
2009	4502	1000	22.2%	588	498	84.69%	11.06%
<i>RP</i>	3002	555	18.5%	444	376	84.68%	12.52%
<i>NZP</i>	1500	445	29.7%	144	122	84.72%	8.13%
2014	2900	774	26.7%	664	523	78.77%	18.03%
<i>M</i>	583	147	25.2%	109	73	66.97%	12.52%
<i>NM</i>	2317	627	27.1%	555	450	81.08%	19.42%
2016	4298	1272	29.6%	1122	771	68.72%	17.94%
<i>MY</i>	2428	655	27.0%	560	356	63.57%	14.66%
<i>GY</i>	1870	617	33.0%	562	415	73.84%	22.19%
2018	3596	598	16.6%	569	392	68.89%	10.90%
<i>GZ</i>	1638	307	18.7%	293	215	73.38%	13.13%
<i>MZ</i>	1958	291	14.9%	276	177	64.13%	9.04%
2020	3552	871	24.5%	868	644	74.19%	18.13%
<i>GA</i>	1541	468	30.4%	466	367	78.76%	23.82%
<i>MA</i>	2011	403	20.0%	402	277	68.91%	13.77%
Total	31,893	11,176	35.0%	5,265	4,075	77.40%	12.78%

Note: GS: general sample, non-Maori descent; GM: general sample, Maori descent; MS: Maori over-sample; RP: Retirement Planning study; NZP: New Zealand Longitudinal Study of Ageing pilot sample; M: 2014 sample, Maori descent; NM: 2014 sample, non-Maori descent; MY: 2016 Maori over-sample; GY: 2016 general sample; MZ: 2018 Māori over-sample; GZ: 2018 general sample; MA: 2020 Māori over-sample; GA: 2020 general sample.

Response rate by mail out phase

Response rates by cohort and mail out phase were broken down (Table 6, Figure 3) to examine the relative value associated with each mail out phase. Responses received from seven days after each phase's initiation were attributed to that phase. The majority of responses for the existing cohort were received within the first six weeks of the initial mail out.

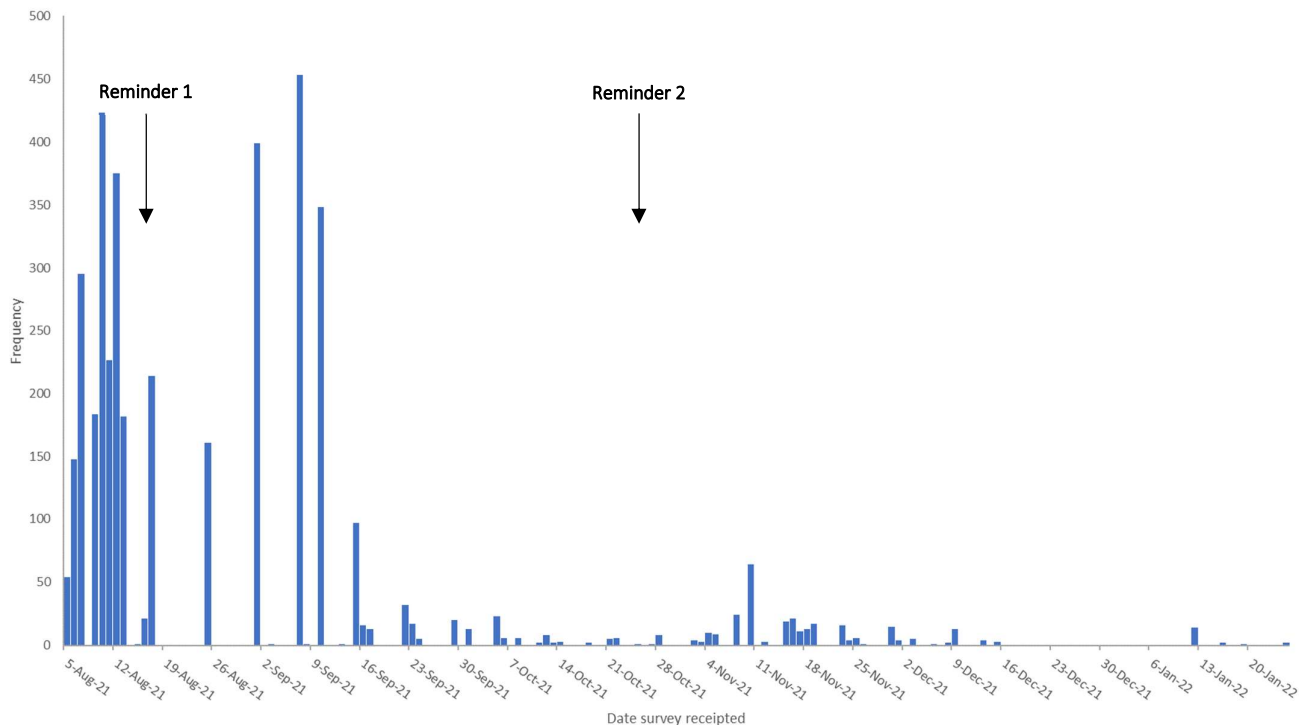


Figure 3. Number of surveys received by date.

Table 7. Responses by survey protocol phase.

	N responses subsequent to phase	% response rate attributable to phase	% of responses received
Existing cohorts (<i>n</i> = 5265 sent)			
Initial survey mail out (28/07-22/08)	2124	40.3%	52.3%
Reminder 1 (23/08-1/11)	1650	31.3%	40.6%
Reminder 2 (2/11-31/1)	301	5.5%	7.2%
Overall	4075	77.2%	100%

All existing participants who were not considered lost to contact, deceased or withdrawn three weeks after the initial mail out ($n = 5265$), were sent the first reminder by OrangeBox, which was the postcard thanking those who had returned a survey, and serving as a reminder for those who had not yet done so. If a response had not been received by 12 weeks after initial mail out, a second reminder was sent by OrangeBox to participants who were not considered lost to contact, deceased or withdrawn ($n = 1435$) including a second copy of the survey and materials. Of these, $n = 301$ (20.98%) ultimately responded.

Appendices (see supplementary file)

Appendix 1: First letter

Appendix 2: Information sheet

Appendix 3: 2021 survey

Appendix 4: contact form

Appendix 6: Post card reminder

Appendix 7: Replacement survey reminder (letter sent with replacement survey and information sheet)

Appendix 8: Pen incentive