



## Extra help with daily activities in advanced age: *Findings from LiLACS NZ*

### Te Puāwaitanga O Ngā Tapuwae Kia Ora Tonu

This report presents key findings about the availability of extra help with daily activities, received by people in advanced age living in the community.

The findings are from a population-based sample of Māori (aged 80 to 90 years) and non-Māori (aged 85 years), living in the Bay of Plenty, who are taking part in a longitudinal study of advanced ageing, called Life and Living in Advanced Age: a Cohort Study in New Zealand - Te Puāwaitanga O Ngā Tapuwae Kia Ora Tonu (LiLACS NZ).

For data tables about extra help with daily activities in advanced age and the LiLACS NZ sample, see the Appendix. For details on methodology, recruitment, and data presented in this report that do not feature in the appendix, see <https://www.fmhs.auckland.ac.nz/en/faculty/lilacs.html> and published articles.<sup>1, 2</sup>

### Key findings

**Over 80% of people in advanced age had someone to provide extra help with daily activities when they needed it. Men were less likely to have someone to provide extra help with daily activities than women.**

**Domestic activities were the most common activities that people received informal help with.**

This report describes access to extra help with daily activities when it is needed by sex, ethnic group and socioeconomic deprivation. It also explores the source of help and whether assistance was used for **mobility** (walking around outside, getting in and out of a car, crossing roads, using public transport), **kitchen activities** (make a hot drink, do the washing up, make a snack), and **domestic activities** (managing money, housework, washing, shopping). This report does not include those in residential care.

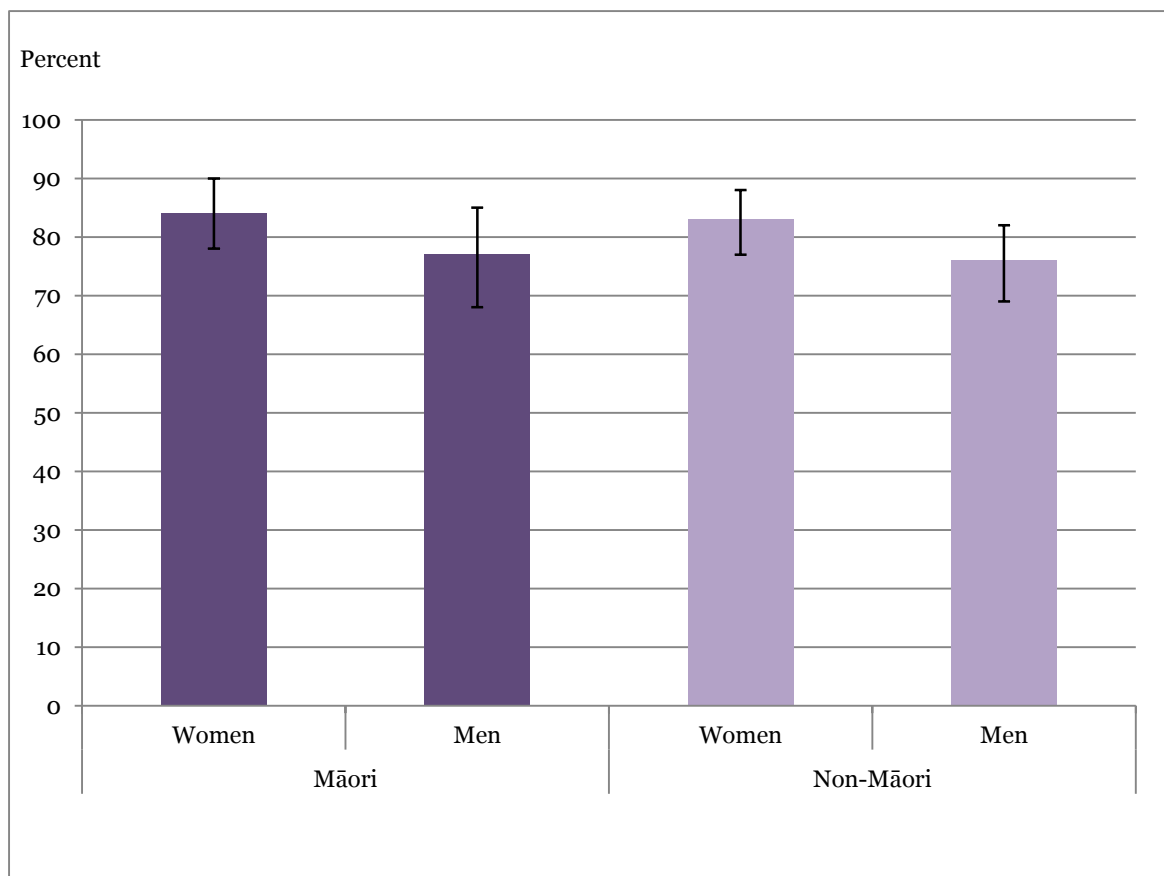
## Findings

### Most people reported having someone to provide extra help with daily activities

Over 80% of people reported having someone to provide them with extra help when they needed it. Significantly<sup>i</sup> fewer men (76%) than women (84%) reported having someone available to provide extra help with daily activities when they needed it, adjusting for age (Figure 1).

A small proportion of Māori (7%) and non-Māori (4%) said they had no-one to provide extra help with daily activities. There was no difference in availability of help with daily activities by socioeconomic deprivation (Appendix Table A-3).

**Figure 1: Someone to provide extra help with daily activities in advanced age, by sex and ethnic group**



Source: LiLACS NZ

Note: This report uses prioritised ethnicity; self-identification as Māori was prioritised over other ethnicities if more than one was given

### The source of help varied depending on living arrangement

People in advanced age lived alone or with a variety of other people including their spouse/partner; their adult children or other relatives.

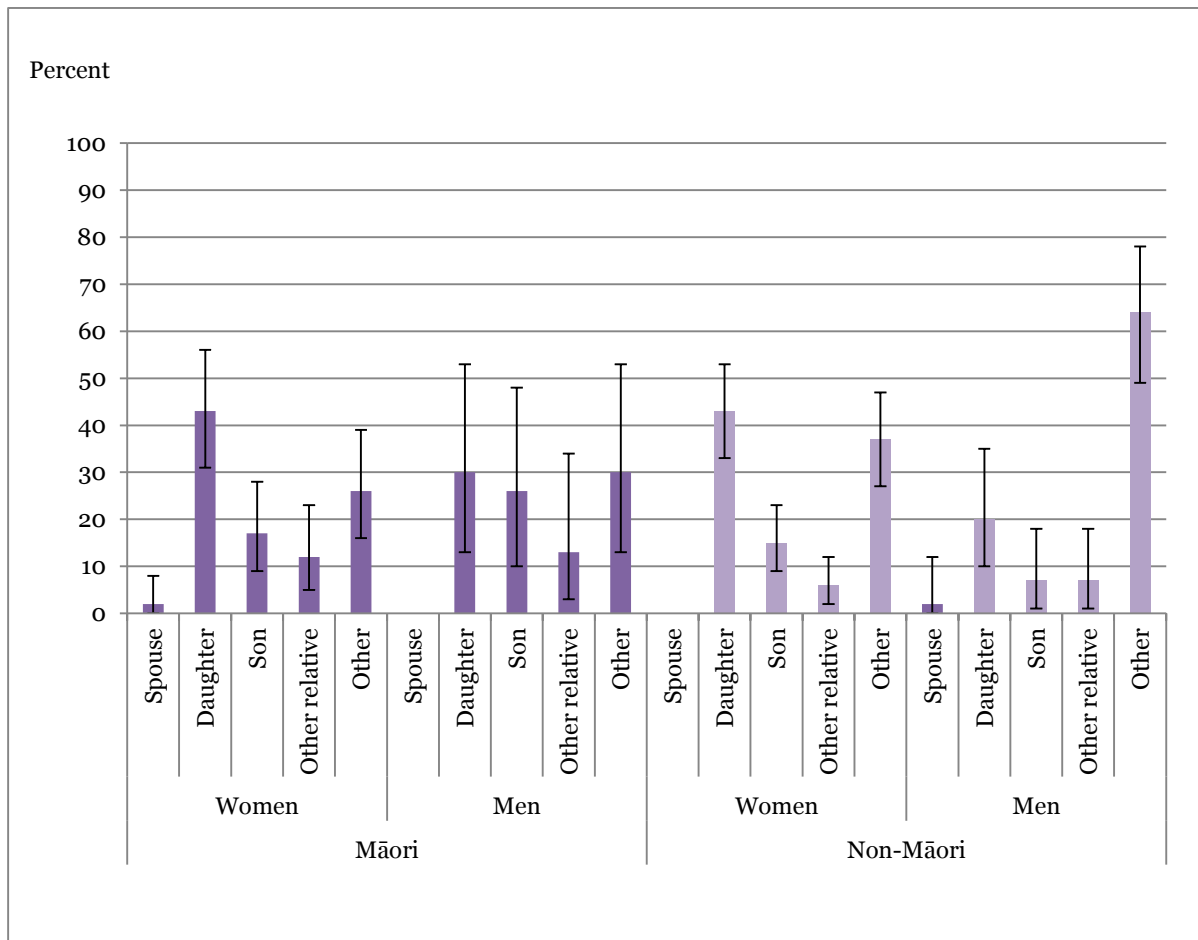
Significantly more women (51% of Māori women, 65% of non-Māori women) lived alone than men (26% of Māori men, 33% of non-Māori men).

<sup>i</sup> The difference between two groups is statistically significant if their confidence intervals do not overlap. Sometimes, even when two confidence intervals overlap, the difference between these groups can be statistically significant. In these cases, if the text reports a difference, a statistical test (a 'Chi Square test, or regression') has been carried out to confirm that the finding is statistically significant

Thirty-eight percent of those who lived alone reported that a non-relative was their main source of extra help with daily activities ('Other' in Figure 2), compared with 9% of those who did not live alone. Professional caregivers (a subset of 'Other' in Figure 2) were the main source of help for 16% of people who lived alone.

For those who lived alone, 56% of Māori men, 60% of Māori women and 58% of non-Māori women listed their son or daughter as the most helpful person. For non-Māori men, the majority (64%) listed 'Other' as the person who gave the most help with daily activities and, of these, one third listed a professional caregiver.

**Figure 2: The person most helpful with daily activities for people in advanced age who lived alone, by sex and ethnic group**



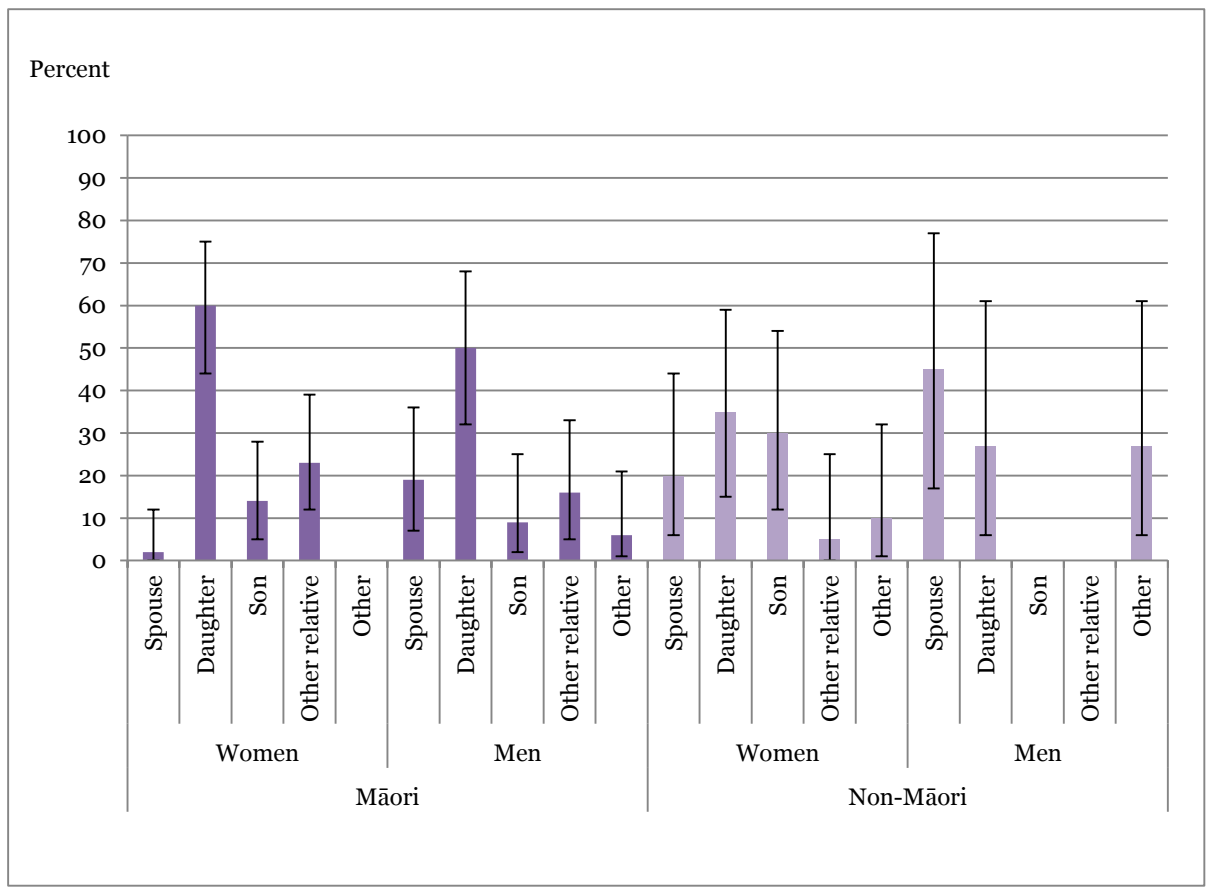
Source: LiLACS NZ

Note: This report uses prioritised ethnicity; self-identification as Māori was prioritised over other ethnicities if more than one was given

### Sources of help with daily activities varied for those who lived with other people

The spouse or the daughter was the most helpful with daily activities among those who lived with other people (Figure 3). The trends in the source of help with daily activities were similar in areas of low and high socioeconomic deprivation.

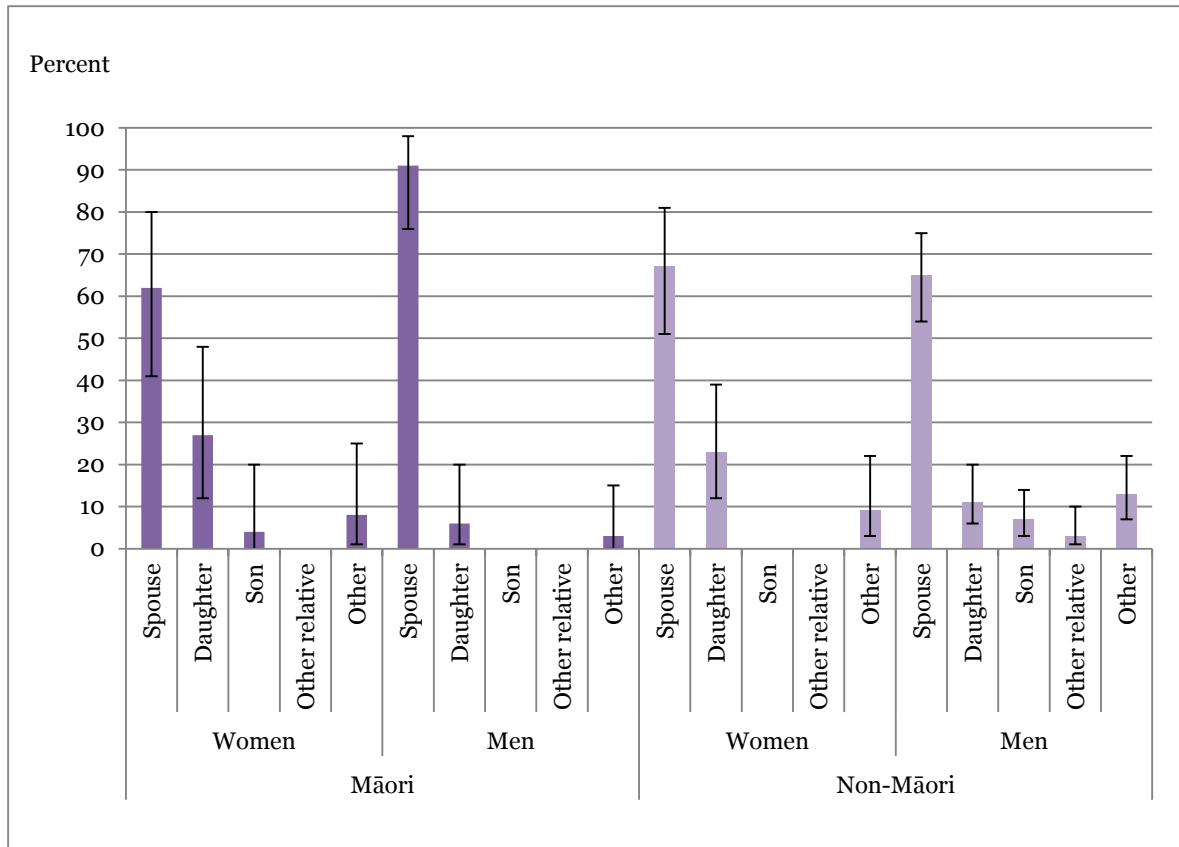
**Figure 3: The person most helpful with daily activities for people in advanced age who lived with other people, by gender and ethnic group**



Source: LiLACS NZ

Note: This report uses prioritised ethnicity; self-identification as Māori was prioritised over other ethnicities if more than one was given. Living with other family/people can include their spouse

**Figure 4: The person most helpful with daily activities for people in advanced age who lived with their spouse/partner only, by gender and ethnic group**



Source: LiLACS NZ

Note: This report uses prioritised ethnicity; self-identification as Māori was prioritised over other ethnicities if more than one was given

**Among those living with their spouse only, the most helpful person with daily activities was their spouse**

The spouse or partner was the most helpful person with daily activities for those living with only their spouse/partner; 91% of Māori men and 62% of Māori women in this living situation reported that their spouse was the person who provided the most help with daily activities (Figure 4). For non-Māori, 65% of men and 67% of women in this living situation reported that their spouse was the most helpful person.

## More people received help with domestic activities than with mobility or kitchen activities

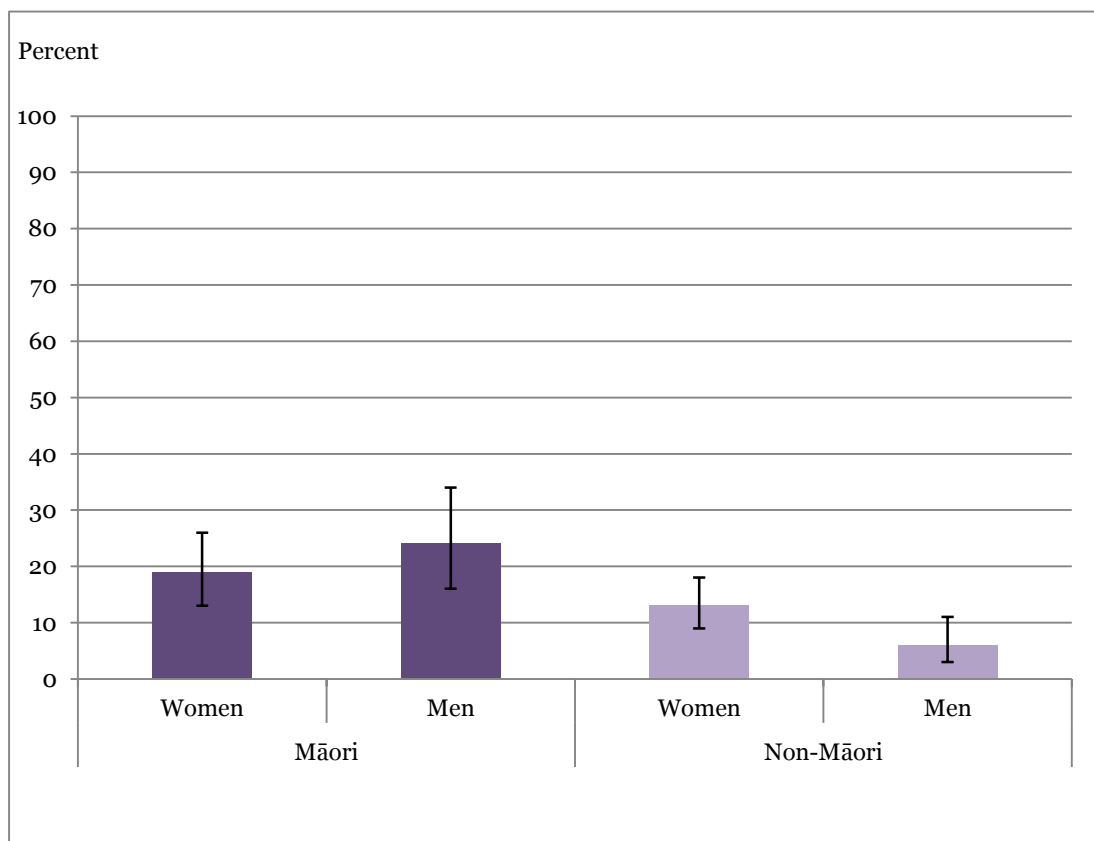
Thirty-seven percent of people received help with domestic activities, 7% received help with mobility and 4% received help with kitchen activities (Appendix Table A-2, A-3).

## Some people had an unmet need for help with daily activities

Fourteen percent said that they could use more help than they received; that is, they had an unmet need for extra help with daily activities when they needed it. Overall, 21% of Māori and 11% of non-Māori reported that they could have used more help with daily activities than they received (Figure 5). There was no significant difference between ethnic groups when adjusted for age and sex.

Unmet need was reported by the same proportion of those who lived alone and those who lived with other people.

**Figure 5: Unmet need for help with daily activities in advanced age, by sex and ethnic group**



Source: LiLACS NZ

Note: This report uses prioritised ethnicity; self-identification as Māori was prioritised over other ethnicities if more than one was given

## What is the source of the data?

The source of these data is Life and Living in Advanced Age: a Cohort Study in New Zealand—Te Puāwaitanga O Ngā Tapuwāe Kia Ora Tonu (LiLACS NZ). Data were gathered in face-to-face, standardised interviews with Māori aged 80-90 years old and non-Māori aged 85 years old at home, plus nursing assessments of physical function and cardiorespiratory health.

The LiLACS NZ sample lives within the boundaries of the Bay of Plenty and Lakes District Health Boards, excluding the Taupo region of Lakes DHB. The participants were first interviewed and assessed in 2010 (the ‘first wave’ of data collection). This is a longitudinal study with annual data collection, subject to mortality and participant retention.

## What were the survey questions?

People were asked whether they lived alone, with a spouse/partner, or with children, other relatives, or other people (categorised as ‘other’). They were asked if they could ‘count on anyone to help with daily activities like grocery shopping, cooking, house cleaning, telephoning, or giving you a ride’ (including an option to say they did not need help). They were asked to choose who had been most helpful in the past year with such activities, from a list of 12 options, including spouse, children and relatives, neighbours, co-workers, church or club members, professionals, other friends or ‘no-one’. This was the main source of help.

People were also asked whether they could have used more help with daily activities than they received, with responses ranging from ‘a lot’ more help needed, ‘a little help’, ‘some’ to ‘none at all’ (that is, the person felt they had sufficient help). Unmet need was dichotomised in this report to ‘any help needed’ and ‘none at all’ as so few participants fell into each of the other categories.

The Nottingham Extended Activities of Daily Living scale (NEADL<sup>4</sup>) measured the ability to manage 22 activities around the home, asking what the person actually did, not what they feel they could do. Whether participants receive help was recorded. The domains of the NEADL were used to show what type of daily activities participants received help with between mobility, kitchen activities and domestic activities.

People were asked whether they were currently receiving any regular support services, and how often; services included meal services, home help (cleaning, shopping, gardening) and personal care.

## Further information

You can find more information about the LiLACS NZ study on the website (<https://www.fmhs.auckland.ac.nz/en/faculty/lilacs.html>) and see also Hayman et al (2012)<sup>1</sup> for the study protocol and Dyllal et al (2013)<sup>2</sup> for the recruitment detail.

## References

1. Dyllal L, Kepa M, Hayman K, et al. 2013. Engagement and recruitment of Maori and non-Maori people of advanced age to LiLACS NZ. *Australian & New Zealand Journal of Public Health* 37(2): 124-31.
2. Hayman K, Kerse N, Dyllal L, et al. 2012. Life and Living in Advanced age: a Cohort Study in New Zealand, *Te Puāwaitanga O Ngā Tapuwāe Kia ora Tonu: - LILACS NZ, Study Protocol BMC Geriatrics* 12: 33.

3. Salmond C, Crampton P, Atkinson J. 2007. *NZDep2006 Index of Deprivation User's Manual*. Wellington: Department of Public Health, University of Otago. NZDep2013 was not available at the time of the study.

4. Essink-Bot ML, Krabbe PF, Bonsel GJ, Aaronson NK. 1997. An empirical comparison of four generic health status measures. *Med Care* 35(5): 522-37.

### **LiLACS NZ – at a glance**

**Sample:** 932 people of advanced age; Māori aged 80–90 years and non-Māori aged 85 years living in the Bay of Plenty and Lakes District Health Boards region. Non-Māori are 90% NZ European, 9% other European and 1% other. Participant numbers vary slightly according to topic being discussed.

**Mode:** Standardised home-based interview and standardised nursing assessment, repeated annually. Hospitalisation and mortality outcomes data were obtained, with permission, by matching the NHI with nationally held hospitalisation data from the Ministry of Health.

**Timing:** Results refer to the population sample recruited in the first wave of data gathering in 2010.

**Funding:** LiLACS NZ was originally funded by a programme grant from the Health Research Council of New Zealand. Ngā Pae o te Māramatanga, Heart Foundation NZ, Oakley Mental Health Foundation, Auckland Medical Research Foundation, the Faculty of Medical and Health Sciences also provided project support. The University of Auckland, the Rotorua Energy Trust and the Ministry of Health have funded LiLACS NZ from 2013.

**Representation:** The study is strengthened by the extensive breath of domains investigated and is designed to engage with a full cohort of Māori allowing equal explanatory power for separate analyses. The findings for Māori and non-Māori may not be generalizable beyond the Bay of Plenty region. However, the overall response rate in the first wave is consistent with other longitudinal studies of ageing; 56% of all Māori and 59% of all non-Māori who were invited participated. In gender and age the sample engaged was similar in proportion to the population of the area and the population of New Zealand. Although all age-eligible older adults were sought and invited, lower enrolments than expected from residential care facilities limits separate analyses of frailer participants.

For more information, see the LiLACS NZ webpage: <https://www.fmhs.auckland.ac.nz/en/faculty/lilacs.html> and other Ministry of Health short reports.





## Appendix: Detailed data tables

The following tables provide detailed data for the key indicators presented in this report. The tables present the prevalence and number of people by sex and ethnic group and 95% confidence intervals for all estimates. Generalised linear models were used for analysis of potentially significant predictors of outcomes and controlled for age, sex and ethnic group.

**Table A-1: Number of participants who answered the questions**

	Māori		Non-Māori	
	Men	Women	Men	Women
Who do you live with most of the time?	107	160	190	214
When you need some extra help, can you count on anyone to help with daily tasks like grocery shopping, cooking, house cleaning, telephoning, give you a ride?	101	155	188	211
In the last year who has been most helpful with these daily tasks?	100	151	182	203
Could you have used more help with daily tasks than you received? (unmet need)	100	151	186	205
Receives help with mobility (domain of NEADL)	101	153	180	200
Receives help with kitchen activities (domain of NEADL)	101	153	180	200
Receives help with domestic activities (domain of NEADL)	101	153	180	200
Received support services	101	153	180	200

**Table A-2 Support in advanced age for men**

	Men					
	Māori			Non-Māori		
	n	(%)	(95% CI)	n	(%)	(95% CI)
Living arrangement						
Alone	27	26	(18 - 36)	60	33	(26 - 40)
Lives with spouse only	39	38	(28 - 48)	105	58	(51 - 65)
Other	37	36	(27 - 46)	16	9	(5 - 14)
Other, including spouse	9	9	(4 - 16)	10	6	(3 - 10)
Other, without spouse	28	27	(19 - 37)	6	3	(1 - 7)
Anyone to give extra help with daily activities						
No	7	(7)	(3 - 14)	6	(3)	(1 - 7)
Yes	77	(77)	(68 - 85)	137	(76)	(69 - 82)
I don't need help	16	(16)	(9 - 25)	37	(21)	(15 - 27)
Who has been the most helpful						
Spouse	37	(42)	(31 - 53)	64	(44)	(36 - 53)
Daughter	25	(28)	(19 - 39)	22	(15)	(10 - 22)
Son	9	(10)	(5 - 18)	9	(6)	(3 - 11)
Other relative	8	(9)	(4 - 17)	6	(4)	(2 - 9)
Other	10	(11)	(6 - 20)	44	(30)	(23 - 39)
Any unmet need	24	(24)	(16 - 34)	11	(6)	(3 - 11)
Receives help with mobility*	9	(9)	(4 - 16)	2	(1)	(0 - 4)
Receives help with kitchen activities*	11	(11)	(5 - 18)	4	(2)	(1 - 6)
Receives help with domestic activities*	37	(36)	(27 - 46)	62	(34)	(28 - 42)
Any support service receipt	42	(42)	(33-52)	91	(49)	(42-56)
Any home help receipt	33	(33)	(24-43)	84	(46)	(39-53)
Any personal care	2	(2)	(-1-5)	4	(2)	(0-4)

Note: \*Percent is percent of those who need help from the Nottingham Extended Activities of Daily Living questionnaire.

**Table A-3: Support in advanced age for women**

	Women					
	Māori			Non-Māori		
	n	(%)	(95% CI)	n	(%)	(95% CI)
Living arrangement						
Alone	79	51	(43 - 59)	131	65	(58 - 72)
Lives with spouse only	30	19	(13 - 26)	48	24	(18 - 30)
Other	47	30	(23 - 38)	22	10	(7 - 16)
Other, including spouse	8	5	(2 - 10)	5	2	(1 - 6)
Other, without spouse	39	25	(18 - 33)	17	8	(5 - 13)
Anyone to give extra help with daily activities						
No	10	(6)	(3 - 12)	11	(6)	(3 - 10)
Yes	130	(84)	(78 - 90)	165	(83)	(77 - 88)
I don't need help	14	(9)	(5 - 15)	23	(12)	(7 - 17)
Who has been the most helpful						
Spouse	18	(13)	(8 - 20)	33	(20)	(14 - 27)
Daughter	61	(46)	(37 - 54)	60	(37)	(29 - 44)
Son	18	(13)	(8 - 20)	21	(13)	(8 - 19)
Other relative	18	(13)	(8 - 20)	7	(4)	(2 - 9)
Other	19	(14)	(9 - 21)	43	(26)	(20 - 34)
Any unmet need	28	(19)	(13 - 26)	25	(13)	(9 - 18)
Receives help with mobility*	19	(12)	(8 - 19)	12	(6)	(3 - 10)
Receives help with kitchen activities*	6	(4)	(1 - 8)	3	(2)	(0 - 4)
Receives help with domestic activities*	45	(29)	(22 - 37)	90	(45)	(38 - 52)
Any support service receipt	68	(44)	(36-52)	118	(57)	(50-63)
Any home help receipt	56	(37)	(29-44)	117	(56)	(49-63)
Any personal care	12	(10)	(4-12)	13	(6)	(3-9)

Note: \*Percent is percent of those who need help from the Nottingham Extended Activities of Daily Living questionnaire.

**Table A-4: Extra help for daily activities available**

Group of interest	Reference group	Adjusted Odds Ratio (95% CI)	Significant (*)	Adjustment variables
Men	Women	0.64 (0.43 - 0.95)	*	Age
Māori	Non-Māori	1.25 (0.74 - 2.10)	ns	Age, sex
Māori men	Non-Māori men	1.27 (0.57 - 2.80)	ns	Age
Māori women	Non-Māori women	1.25 (0.62 - 2.49)	ns	Age
Most deprived areas	Least deprived areas	0.99 (0.58 - 1.70)	ns	Age, sex, ethnic group
Most deprived areas - men	Least deprived areas - men	0.98 (0.45 - 2.14)	ns	Age, ethnic group
Most deprived areas - women	Least deprived areas - women	1.00 (0.47 - 2.11)	ns	Age, ethnic group

\*Significant odds ratio for comparison of group of interest to the reference group. ns = no significant difference

**Table A-5: Needs more help with daily activities than received**

Group of interest	Reference group	Adjusted Odds Ratio (95% CI)	Significant (*)	Adjustment variables
Men	Women	0.79 (0.50 - 1.27)	ns	Age
Māori	Non-Māori	1.52 (0.82 - 2.81)	ns	Age, sex
Māori men	Non-Māori men	2.51 (0.85 - 7.40)	ns	Age
Māori women	Non-Māori women	1.11 (0.53 - 2.35)	ns	Age
Most deprived areas	Least deprived areas	2.20 (1.05 - 4.58)	*	Age, sex, ethnic group
Most deprived areas - men	Least deprived areas - men	2.04 (0.54 - 7.68)	ns	Age, ethnic group
Most deprived areas - women	Least deprived areas - women	2.26 (0.93 - 5.50)	ns	Age, ethnic group
Most deprived areas - Māori	Most deprived areas - non-Māori	1.56 (0.67 - 3.68)	ns	Age, sex

\*Significant odds ratio for comparison of group of interest to the reference group. ns = no significant difference

**Table A-6: Receive formal support services**

Group of interest	Reference group	Adjusted Odds Ratio (95% CI)	Significant (*)	Adjustment variables
Any community support service (home help, meal service, personal care)				
Men	Women	0.84 (0.61–1.15)	ns	Age
Māori	Non-Māori	0.80 (0.54 –1.17)	ns	Age, sex
Māori men	Non-Māori men	0.99 (0.53–1.87)	ns	Age
Māori women	Non-Māori women	0.70 (0.43–1.13)	ns	Age
Most deprived areas	Least deprived areas	0.73 (0.48–1.12)	ns	Age, sex, ethnic group
Most deprived areas - men	Least deprived areas - men	1.14 (0.59–2.20)	ns	Age, ethnic group
Most deprived areas - women	Least deprived areas - women	0.52 (0.30–0.92)	ns	Age, ethnic group

\*Significant odds ratio for comparison of group of interest to the reference group. ns = no significant difference

## LiLACS NZ background and sample

LiLACS NZ is a programme of research that is based on a longitudinal cohort study of New Zealanders in advanced age. In 2010, LiLACS NZ invited all Māori aged 80-90 years and all non-Māori aged 85 years within the Bay of Plenty and Lakes District Health Board regions (excluding Taupo area) to undertake a detailed health interview and physical assessment, and to give a blood sample. Those who agreed were interviewed between March 2010 and April 2011, defined as the *2010 first wave*. These participants were then followed up annually at the same time of year, which produced the 2011 second wave and in 2012 the third wave. Table A-7 shows the age, sex, ethnic group, living arrangements and socioeconomic deprivation area of the LiLACS NZ participants in the first wave.

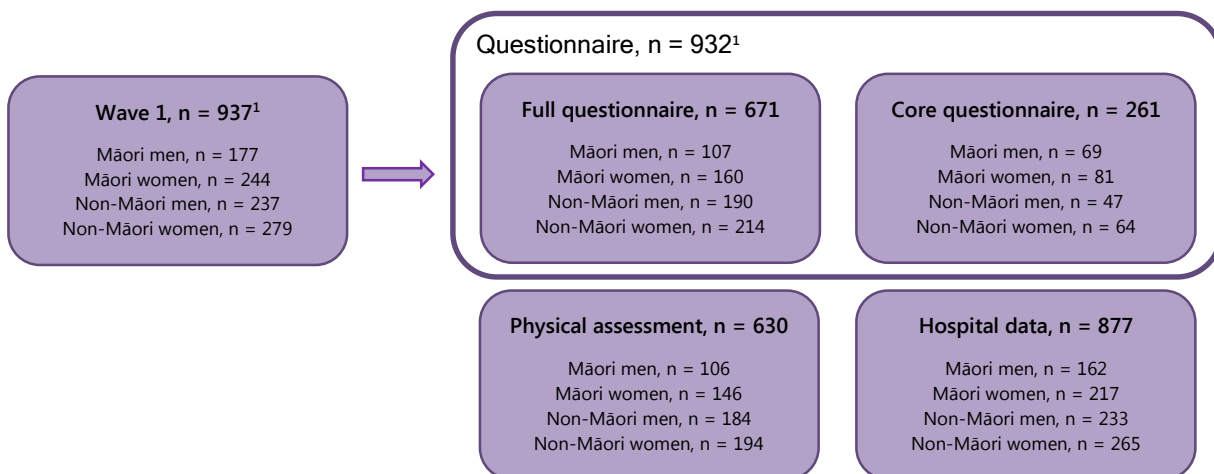
**Table A-7: Demographic summary of LiLACS NZ participants**

	Māori						Non-Māori					
	Men		Women		Total		Men		Women		Total	
Age - Mean (SD)	82.5	(2.8)	82.8	(2.7)	82.7	(2.8)	84.6	(0.5)	84.6	(0.5)	84.6	(0.5)
Living - n (%)												
Alone	29	(27%)	81	(51%)	110	(41%)	61	(32%)	134	(63%)	195	(48%)
Spouse only	40	(37%)	30	(19%)	70	(26%)	106	(56%)	48	(22%)	154	(38%)
Other	38	(36%)	49	(31%)	87	(33%)	23	(12%)	32	(15%)	55	(14%)
Deprivation - n (%)												
Decile 1-4 (Low)	19	(11%)	41	(17%)	60	(14%)	60	(25%)	69	(25%)	129	(25%)
Decile 5-7 (Med)	53	(30%)	56	(23%)	109	(26%)	91	(38%)	117	(42%)	208	(40%)
Decile 8-10 (High)	104	(59%)	147	(60%)	251	(60%)	86	(36%)	93	(33%)	179	(35%)

Source: LiLACS NZ

During their interview, all participants completed a *core* questionnaire of three pages about health and function. The majority of participants also completed the full questionnaire during their interview where, in addition to the core questions, they were asked more detailed questions about social, environmental, cultural, and health status. The informal and formal support with daily activities questions were part of the full questionnaire.

**Figure A-1: LiLACS NZ recruitment process**



Note:

1: n = 4 recruits withdrew before first interview; n = 1 questionnaire lost, no data

2: 23 participants live in residential care; 648 live in the community

3: 52 participants live in residential care; 209 live in the community