



Participation in Māori society in advanced age: *Findings from LiLACS NZ*

Te Puāwaitanga O Ngā Tapuwae Kia Ora Tonu

This report presents key findings about participation in Māori society in advanced age including attendance at marae and understanding tikanga.

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 participation in Māori society 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.^{1, 2}

Key findings

Almost all Māori had been to a marae in the last 12 months (82%). Māori in advanced age living in areas of higher socioeconomic deprivation were significantly more likely to attend marae.

Half of Māori in advanced age have a complete understanding of their tikanga. There was no significant difference between Māori men and women.

This report describes participation of only Māori in advanced age in cultural activities by sex and socioeconomic deprivation.

For this report, **tikanga** is defined as correct procedure or protocol within a Māori cultural context.

Findings

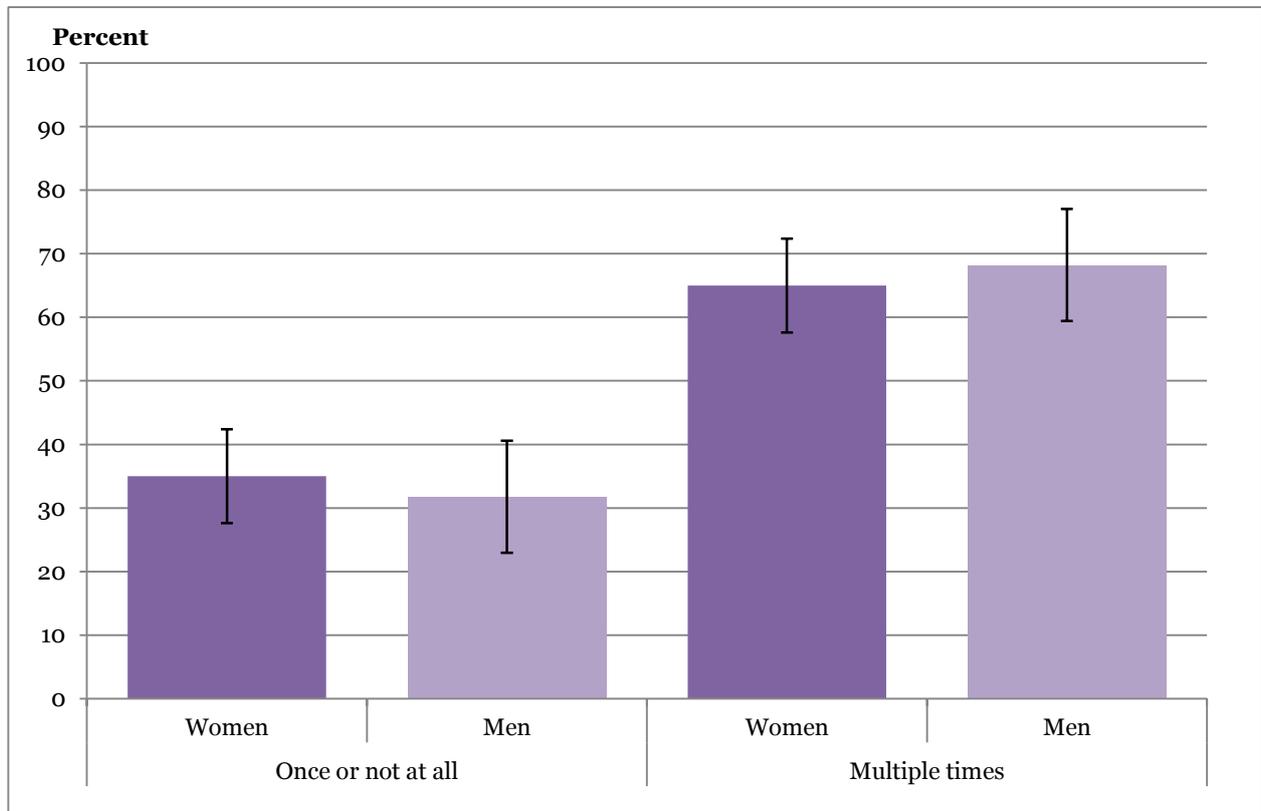
Almost all Māori had been to a marae in the last 12 months (82%)

Forty-seven percent of Māori reported that their contacts were mainly with other Māori, a further 31% had some contact with Māori and 22% had little or no contact with Māori.

Almost all Māori had been to a marae in the last 12 months (82%). Two out of three (68%) reported attending a marae a few times, several times or more than monthly (summarised as 'multiple times' in Figure 1) in the last 12 months. Thirty-two percent had attended a marae only

once in the last 12 months, less than yearly or not at all. There was no significant difference in the frequency of marae attendance between Māori men and women (Figure 1).

Figure 1: Attendance at marae in the last 12 months among Māori in advanced age, by sex

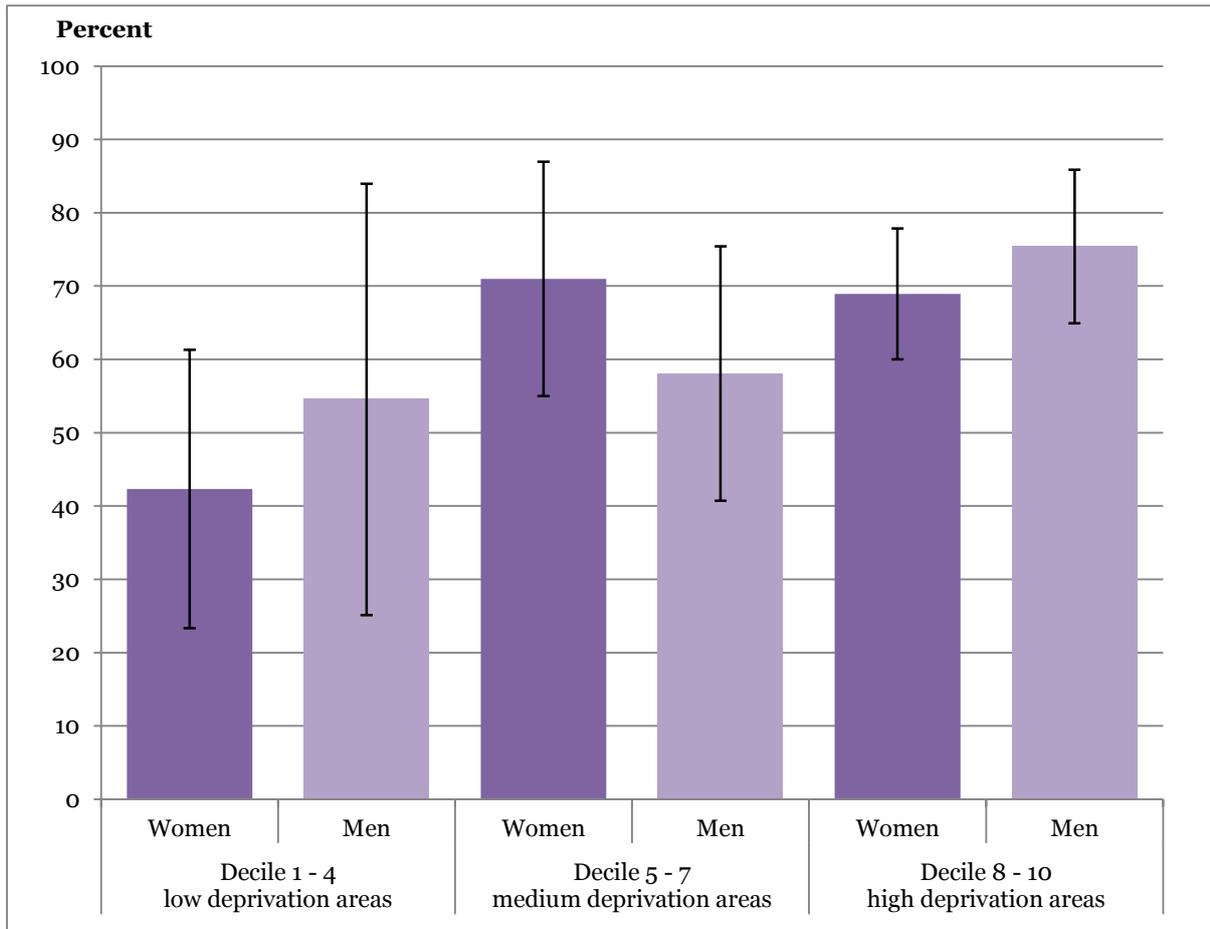


Source: LiLACS NZ

Māori in advanced age from areas of higher socioeconomic deprivation were significantly more likely to attend marae multiple times

Figure 2 shows that Māori living in areas of high socioeconomic deprivation were more likely to attend marae multiple times in the last year than Māori who lived in areas of low socioeconomic deprivation.

Figure 2: Attendance at marae multiple times in the last 12 months among Māori in advanced age, by socioeconomic deprivation



Source LiLACS NZ

Note: The deciles in the New Zealand Deprivation Index (NZDep2006³) were used to define the level of socioeconomic deprivation in participants' neighbourhoods as 'Low' (Decile 1-4), 'Medium' (Decile 5-7) or 'High' (Decile 8-10). The higher the decile, the greater the level of deprivation in the neighbourhood

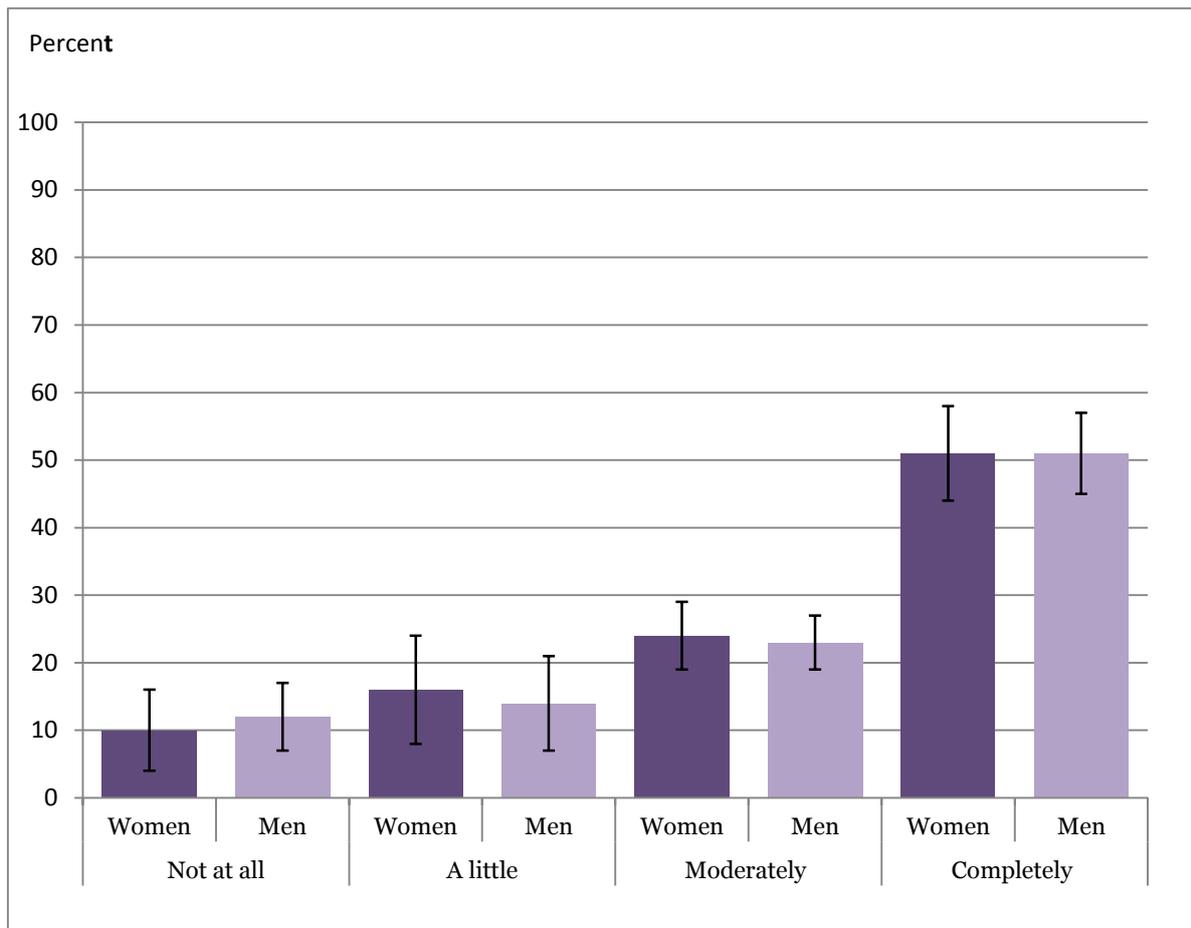
Māori in advanced age understood tikanga well

Half (51%) of Māori reported understanding their tikanga very or extremely well (summarised as 'completely' in Figure 3), and a further 23% reported understanding their tikanga moderately well.

There was no significant difference in completely understanding tikanga between men and women.

Both men and women who lived in areas of high socioeconomic deprivation were significantly more likely to have complete understanding of their tikanga than those who lived in areas of low socioeconomic deprivation (Appendix Table A-5).

Figure 3: Understanding of tikanga among Māori in advanced age, by sex



Source: LiLACS NZ

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 Tapuwae Kia Ora Tonu (LiLACS NZ). Data were gathered in face-to-face, standardised interviews with Māori aged 80-90 years and non-Māori aged 85 years 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.

The participation in Māori society data reported on is from 267 Māori participants who completed the full questionnaire (see Appendix Figure A-1) during the first wave of data collection.

What were the survey questions?

Māori were asked how well they understood their tikanga and how often they had been to a marae in the last 12 months. All Māori participants were asked about the frequency of the contact that they had with other Māori.

Further information

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

References

1. Dyall 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, Dyall L, et al. 2012. Life and Living in Advanced age: a Cohort Study in New Zealand, Te Puāwaitanga O Nga Tapuwae Kia ora Tonu: - LILACS NZ, Study Protocol. *BMC Geriatrics* 12: 33.
3. Salmond C, Crampton P, Sutton F. 1998. NZDep91: a New Zealand index of deprivation. *Aust NZ J Public Health* 22: 835-7.

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 of participation in culture (Table A-1), and the mean health related QOL score for those with different levels of participation (Table A-2). Tables A-3 and A-4 show the significance of variation in the key indicators for specific groups within the sample.

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

| | Māori | |
|---|-------|-------|
| | Men | Women |
| How often over the last year have you ever been to a marae? | 102 | 153 |
| How well do you understand your tikanga? | 171 | 225 |
| In general, would you say your contacts are with: mainly Māori, some Māori, Few Māori, No Māori | 107 | 158 |

Table A-2: Participation in culture - prevalence

| | Māori | | | | | |
|---|-------|------|-----------|-------|------|-----------|
| | Men | | | Women | | |
| | n | (%) | (95% CI) | n | (%) | (95% CI) |
| Frequency of attendance to marae | | | | | | |
| Never been to a marae | 3 | (3) | (1 - 8) | 3 | (2) | (0 - 6) |
| Been to a marae but not in the last 12 months | 12 | (11) | (6 - 19) | 30 | (19) | (13 - 26) |
| Once in the last 12 months | 17 | (16) | (10 - 25) | 18 | (12) | (7 - 18) |
| A few times in the last 12 months | 15 | (14) | (8 - 22) | 23 | (15) | (10 - 21) |
| Several times in the last 12 months | 35 | (33) | (24 - 43) | 51 | (33) | (26 - 41) |
| More than monthly in the last 12 months | 23 | (22) | (14 - 31) | 30 | (19) | (13 - 26) |
| Understanding of tikanga | | | | | | |
| Not at all | 21 | (12) | (8 - 18) | 22 | (10) | (6 - 14) |
| A little | 24 | (14) | (9 - 20) | 36 | (16) | (11 - 21) |
| Moderately | 39 | (23) | (17 - 30) | 53 | (24) | (18 - 30) |
| Very | 49 | (29) | (22 - 36) | 71 | (32) | (26 - 38) |
| Extremely | 38 | (22) | (16 - 29) | 43 | (19) | (14 - 25) |
| Contacts with people: - contacts mainly with... | | | | | | |
| Mainly Māori | 51 | (48) | (38 - 58) | 74 | (47) | (39 - 55) |
| Some Māori | 37 | (35) | (26 - 44) | 46 | (29) | (22 - 37) |
| Few or no Māori | 19 | (18) | (11 - 26) | 38 | (24) | (18 - 31) |

Table A-3: Marae visits a few times a year or more

| Group of interest | Reference group | Adjusted Odds Ratio (95% CI) | Significant (*) | Adjustment variables |
|-----------------------------|------------------------------|------------------------------|-----------------|----------------------|
| Men | Women | 1.18 (0.69 - 2.00) | ns | Age |
| Most deprived areas | Least deprived areas | 2.79 (1.33 - 5.84) | * | Age, sex |
| Most deprived areas - men | Least deprived areas - men | 2.56 (0.66 - 9.86) | ns | Age |
| Most deprived areas - women | Least deprived areas - women | 2.87 (1.17 - 7.03) | * | Age |

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

Table A-4: Understanding tikanga very or extremely well

| Group of interest | Reference group | Adjusted Odds Ratio (95% CI) | Significant (*) | Adjustment variables |
|-----------------------------|------------------------------|------------------------------|-----------------|----------------------|
| Men | Women | 0.97 (0.65 - 1.46) | ns | Age |
| Most deprived areas | Least deprived areas | 2.58 (1.39 - 4.81) | * | Age, sex |
| Most deprived areas - men | Least deprived areas - men | 3.02 (1.03 - 8.89) | * | Age |
| Most deprived areas - women | Least deprived areas - women | 2.37 (1.10 - 5.09) | * | Age |

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

Note: The Short Form (12) Health Survey or SF-12 is a self-reported series of 12 questions on a person's health. Their responses were used to give one summary score for their physical health related Quality of Life (QoL), and another for their mental health related QoL. The scale for both is from 0 to 100 with the higher score, being indicative of better QoL.

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-5 shows the age, sex, ethnic group, living arrangements and socioeconomic deprivation area of the LiLACS NZ participants in the first wave.

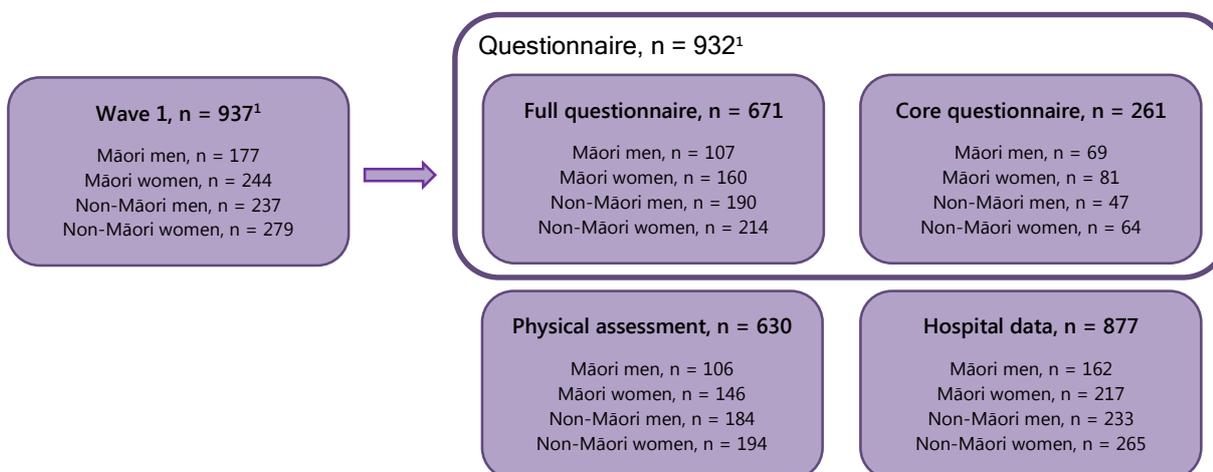
Table A-5: Demographic summary of LiLACS NZ participants

| | 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 participation in Māori society 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