Talking about Health: Long term conditions study 2016 - 2018

Results for Māori participants 2016

Contents

Māori results

The results for Māori have been written up separately in order to describe Māori experience and to identify any improvements where health inequalities could be targeted. We have not done the same for Pacific people, as the cohort is simply too small. Please note that the background information and contextual detail is provided in the full patient report which should be read in conjunction with this one.

Demographics

The Māori respondents (n=82) made up 14.5% of the patient sample and this section presents the results for this group. Demographics are presented in the following table which shows that the sample was slightly biased towards female respondents. The majority of Māori participants (63.4%) were aged between 55 and 74 years, just over a third had no school qualifications and just under a third had post school, polytechnic or trade qualifications. Nearly a third (31.7%) had some form of employment. In addition, 29.6% were involved in voluntary or unpaid work.

Table M1: Demographic description

	Percent		Percent
Sex (N=82)		**Highest educational level (78)**	
Male (36)	43.9	No school qualifications (28)	35.9
Female (46)	56.1	School qualifications (15)	19.2
		Post school/polytech/trade (24)	30.8
Age (N=82)		University qualification (11)	14.1
35 - 44 (4)	4.9		
45 - 54 (17)	20.7	**Employment (79)**	
55 - 64 (26)	31.7	Full-time paid work (10)	12.7
65 - 74 (26)	31.7	Part-time paid work (11)	13.9
75 - 84 (7)	8.5	Casual paid work (4)	5.1
85+ (2)	2.4	Retired (31)	39.2
		Unemployed looking for work (3)	3.8
		Unemployed not looking for work (14)	17.7
		Other (6)	7.6

Living situation

Details about living situation are provided in Table 2 where it can be seen that the majority of participants (59.3%) live at home with others and close to half (48.8%) are living with a partner or spouse at least some of the time. Companion animals are owned by close to half of the Māori patients (43.2%) and most say their animal is a good companion. Most people have enough income to meet their everyday needs such as accommodation, food and clothing, although exactly a third (33.3%) indicated their income was only just enough. Twenty three people (28.4%) said their income was inadequate. Housing problems of some sort were experienced by a large number (53.8%) of Māori participants, 39.1% indicating they had one to two issues, and 12.8% having three or four problems. The greatest problems were repairs needed and houses being hard to warm. These problems may be related and may also have implications for health and well-being. When income adequacy and the number of housing problems were correlated[1], a moderate negative correlation was found suggesting that those with more income experienced fewer housing problems (r=-.31).

Table M2: Living situation

	Percent		Percent
Location (81)		**Income adequacy (81)**	
Alone at home (30)	37.0	Not enough (23)	28.4
At home, sometimes alone (2)	2.5	Just enough (27)	33.3
At home with others (48)	59.3	Enough (22)	27.2
Residential care (1)	1.2	More than enough (9)	11.1
Living with partner/spouse (80)		**Housing issues (78)***	
All of the time (37)	46.3	No problems (36)	46.2
Some of the time (2)	2.5	Repairs needed (27)	34.6
No (41)	51.3	Pests (10)	12.8
		Too small (3)	3.8
Animal companion (81)		Damp (13)	16.7
Yes, good companion (32)	39.5	Hard to keep warm (22)	28.2
Yes, not good companion (3)	3.7		
No animal (46)	56.8		

* Percentages add to more than 100 as a number of respondents indicated there was more than one housing issue (range 0-4).

Social interaction

Social connectedness was measured in a number of ways; through measuring whether people are living with others (see Table M2), how much contact they have with whānau and through their engagement in social activities.

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[1] Correlations of .2 and above are reported regardless of significance, due to small sample sizes

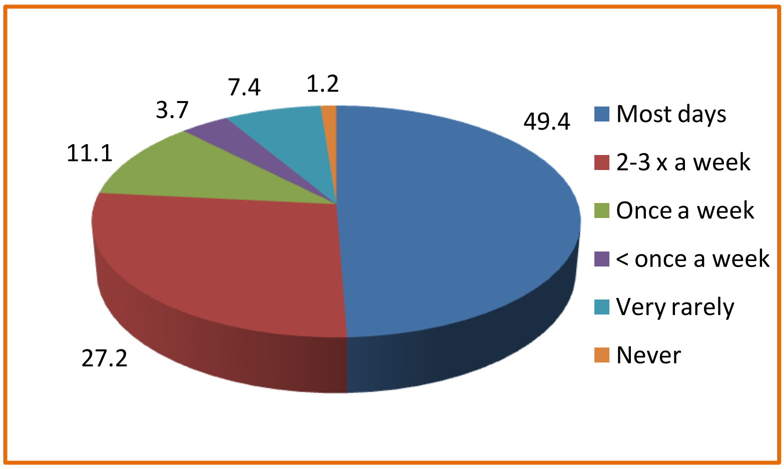

Figure M1: Frequency of contact with whānau outside the household

From Figure M1 it can be seen that the participants appear to have a high level of contact in person or by phone or email with whānau/family members who do not live with them. Contact at least once a week was reported by 88%.

The level of contact with whānau was considered to be the right amount by most people (82.3%), but for others it was too little (16.5%) and for a few it was too much (1.3%).

Engagement in social activities outside the home was measured using questions from the Te Kupenga Māori Quality of Life survey[2]. A list of social activities was provided and respondents were asked to state whether they were involved in them at least once a month (yes/no). The results are provided in Figure M2.

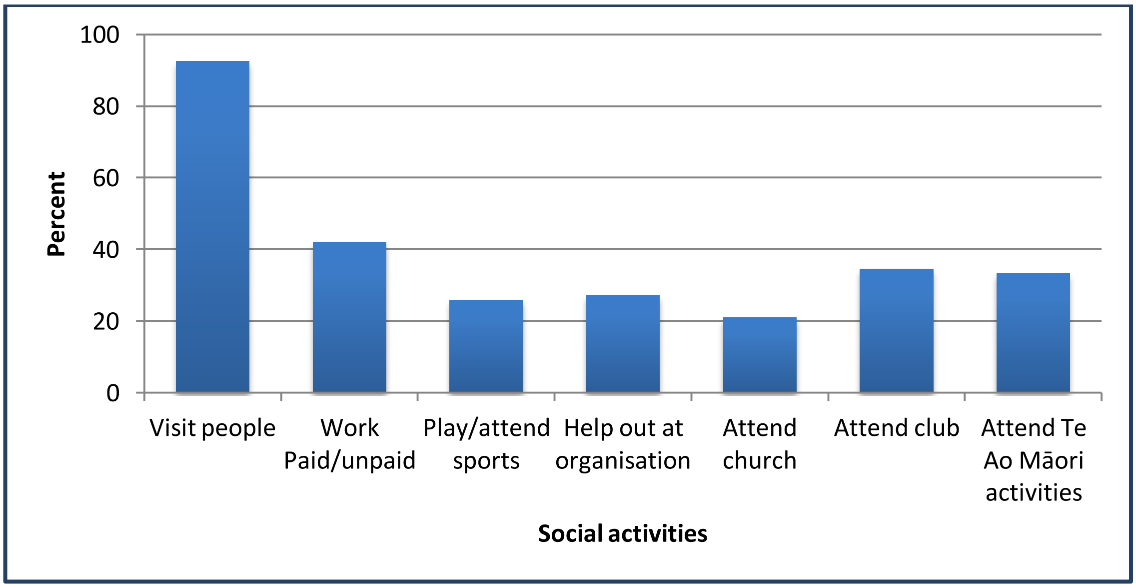

Figure M2: Monthly involvement in activities outside the home

Visiting people was clearly the most common activity engaged in with nearly all Māori respondents (92.6%) indicating they do this at least monthly. The next most frequent activity was work, paid or unpaid, with close to half (42%) indicating they were employed. Although employment is positive in terms of social interaction and income (for those in paid work) it may also limit access to healthcare due to lack of availability during work hours. About a third of this group attend a club and a similar number are involved in Te Ao Māori activities. These items were combined into a Social Activity scale with scores ranging from 0 to 6 and a mean score of 2.7.

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[2] http://www.stats.govt.nz/survey-participants/a-z-of-our-surveys/te-kupenga-2013-questionnaire.aspx

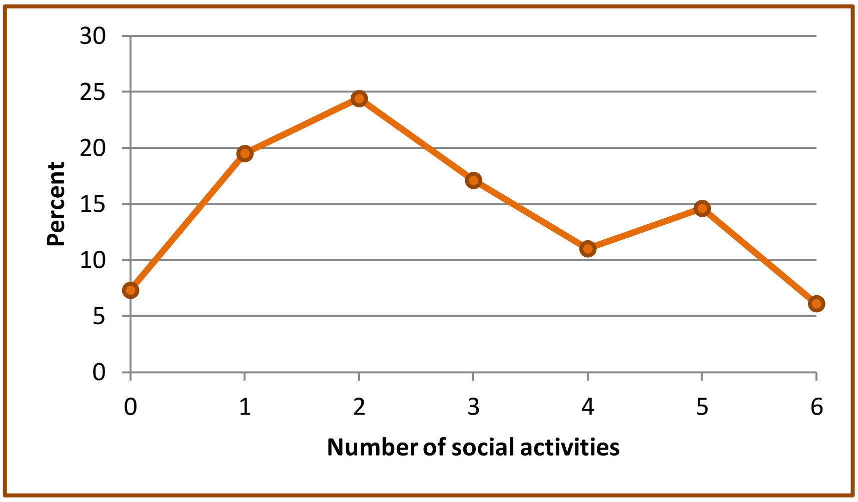


Figure M3: Numbers of listed social activities people were engaged in at least monthly.

The number of social activities people engaged in is presented in Figure M3 showing that 7% of Māori had no engagement in these activities, and 61% were involved in one to three activities on a monthly basis. Nobody reported being involved in all 7.

Additional support

Table M3: Help or support received by Māori participants (N=75)

	Number (%)	
	Alone	**Total**
Whānau	28 (37.8)	51 (68.9)
Friends	3 (4.1)	28 (37.8)
Neighbours	1 (1.4)	15 (20.3)
None	13 (17.6)	

Information about whether any help or support was received from whānau members, neighbours, friends or local organisations was sought and the results are provided in Table M3. The 'alone' column provides the numbers who reported getting support from this source only, the 'total' column reports the numbers who reported getting support from this source as well as from another source. Whānau were the greatest source of support, with over half of the patients (68.9%) receiving help/support from families, and over a third (37.8%) receiving no other form of support. Thirteen Māori patients indicated that they receive help from nobody other than health practitioners.

The support received from people or organisations other than family, friends and neighbours (9.5%) came from:

- Carers
- Churches
- RSA
- Meals on wheels
- Local op shop

Health

The number of long term conditions participants indicated they had ranged from 1 to 8, the average being 3.6. The number of conditions experienced is presented in Figure M4.

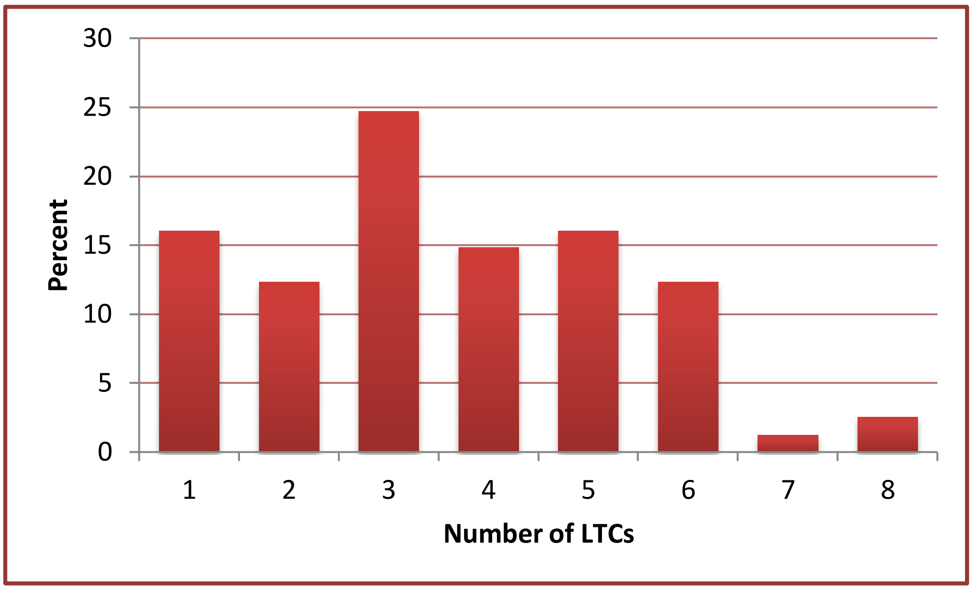


Figure M4: Number of LTCS for Māori participants

The main conditions experienced and their representation in the Māori patient sample are provided in Table M4.

Table M4: Number of Māori participants with specific long term conditions (N=81)

Condition	Frequency (%)	Condition	Frequency (%)
Diabetes	43 (53.1)	Chronic kidney disease	7 (8.5)
Pain	48 (58.5)	Renal failure	4 (4.9)
Respiratory	36 (43.9)	Dementia/memory problems	15 (18.3)
Hypertension	41 (50.0)	Anxiety/depression related to LTC	20 (24.4)
Angina	10 (12.2)	Cancer	10 (12.2)
Heart failure	8 (9.8)	Mental health issues	4 (4.9)
Other cardiac condition	10 (12.2)		

Pain, diabetes and hypertension were the most common conditions, experienced by at least half of the patients, followed by respiratory conditions. A quarter of this group reported experiencing anxiety or depression in relation to having long term conditions which indicates a need for further support in this area.

Health status was measured using the 10-item global short form Patient-Reported Outcomes Measurement Information System (PROMIS) to assess mental and physical health as well as overall health status. The

Global Physical health T-scores for Māori (N=79) ranged from 23.5 to 61.9 with a mean of 41.8. The Global Mental health T-scores (N=78) ranged from 25.1 to 62.5 with a mean of 44.4. Physical and mental health score comparisons between different demographic groups are presented in Table M5. Physical and mental health was better for those with no school qualifications or with a university qualification than for those with school or post school qualifications, and for those with more available income.

Table M5: Mean global physical and mental health scores according to demographic characteristics for Māori

	Physical Health mean (N)	Mental Health mean (N)
Sex		
Male	42.1 (35)	43.9 (34)
Female	41.6 (44)	44.8 (44)
Educational qualifications		
No school	44.0 (27)	46.2 (26)
School	40.7 (15)	44.4 (15)
Post school	40.5 (22)	41.8 (23)
University	43.6 (11)	45.8 (11)
Age		
<55	43.0 (19)	43.5 (19)
55-64	40.0 (25)	42.7 (25)
65-74	42.4 (25)	46.6 (24)
75+	41.0 (7)	46.3 (7)
Living situation		
With partner	42.1 (35)	44.4 (35)
Not with partner	39.9 (40)	44.8 (39)
Income adequacy		
Not enough	38.0 (23)	41.6 (21)
Just enough	41.9 (26)	45.5 (26)
Enough	44.7 (20)	46.0 (21)
More than enough	46.4 (9)	45.4 (9)

General health status

A single item measure of general health status is included in the PROMIS global short form measure asking respondents to rate their overall health. The results (N=80) were as follows:

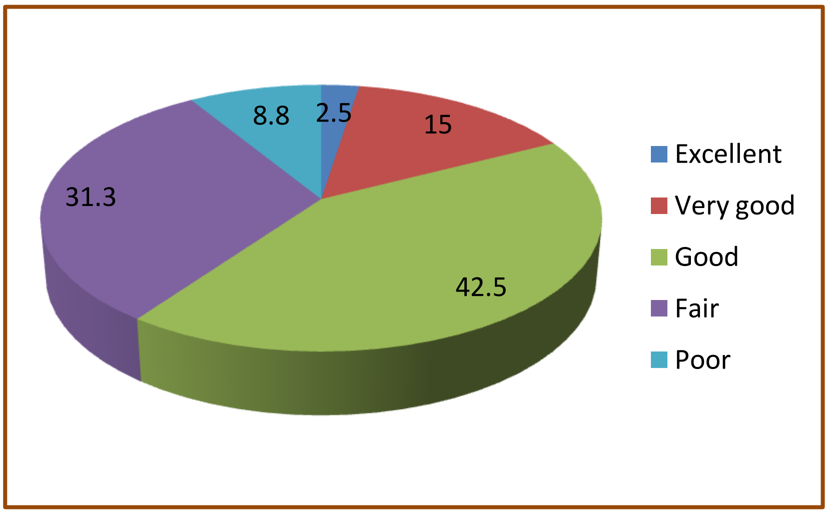


Figure M5: Self-reported general health status expressed as percentages

Scoring these responses from 1 ‘poor’ to 5 ‘excellent’ provided a mean score of 2.7 for the Māori sample. Means according to a range of demographics are provided in Figure M6.

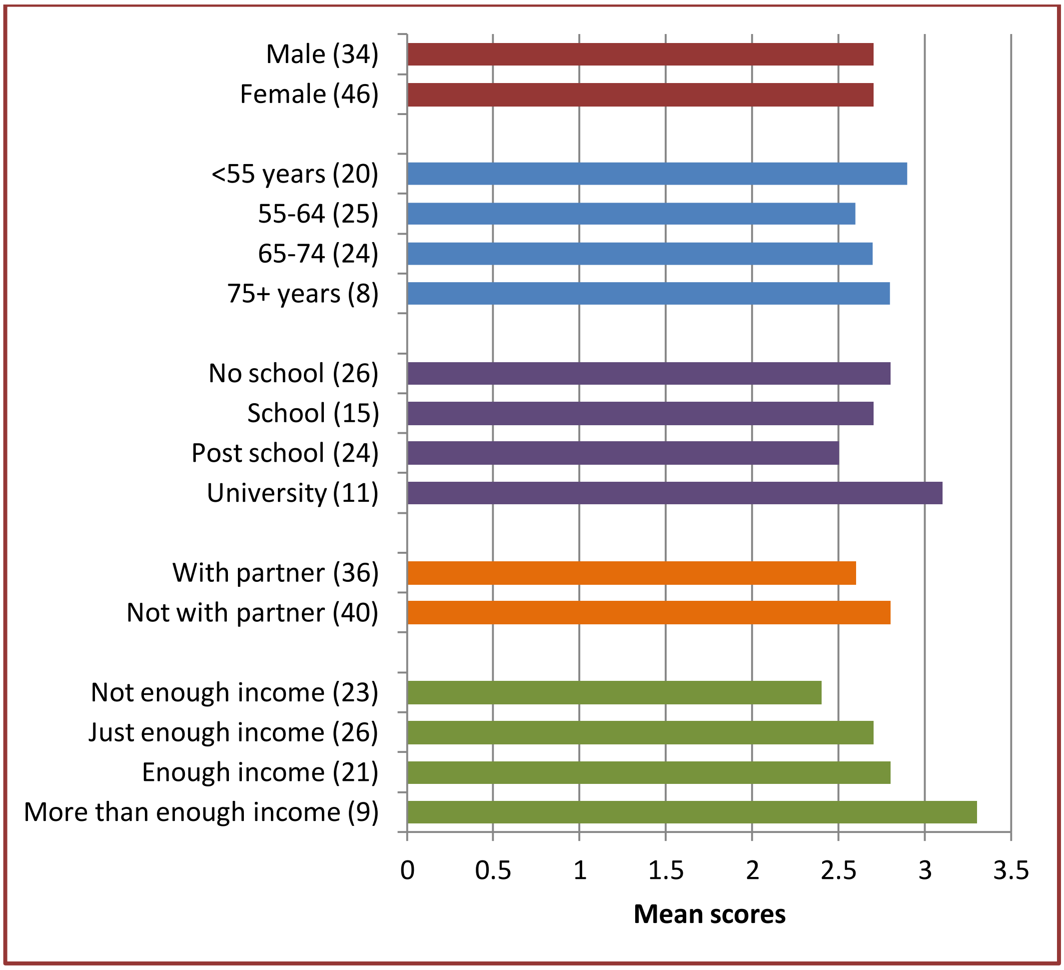


Figure M6: Mean overall health scores by demographics (N)

The findings suggest that people in the age group 55-64 had the lowest reported health scores, those less than 55 having the highest. Overall health scores were higher for those without a partner than for those with and overall health scores improved with income level.

Quality of Life

In addition to the health-related quality of life questions, patients were given an 11-point scale to rate their satisfaction with their life as a whole (from 0 ‘completely dissatisfied’ to 10 ‘completely satisfied’) and how much control they feel they have over the way their life turns out (from 0 ‘no control at all’ to 10 ‘complete control’). Both of these questions were taken from the Te Kupenga Māori quality of life study.

Satisfaction with life as a whole ranged from 1 to 10 (M=6.5), the most common score (mode) being a 7. The full 0 to 10 range was used for control over life (M=7.3) with a bimodal distribution; scores of 8 and 10 being most common. Ratings of how having at least one long term condition affected Māori respondents’ quality of life ranged from 0 to 10 with a mean of 6.1 and a mode of 8.

Differences between groups based on the same range of demographics were calculated and the means are presented in Table M6.

Table M6: Mean satisfaction with life, control over life and effect of LTCs on QoL scores according to demographic characteristics

	Mean scores		
Characteristic (N)	**Satisfaction with life**	**Control over life**	**Effect of LTC on QoL**
Sex			
Male (36)	6.5	7.5	6.0
Female (46)	6.6	7.1	6.2
Educational qualifications			
No school (28)	7.1	7.6	5.6
School (15)	5.7	7.2	6.5
Post school (24)	6.2	6.7	6.2
University (11)	6.7	7.8	6.6
Age			
<55 (20)	6.5	6.8	6.3
55-64 (25)	6.4	6.8	6.3
65-74 (26)	6.5	8.0	6.0
75+ (8)	7.2	8.0	6.1
Living situation			
With partner (37)	6.8	7.3	5.9
Not with partner (41)	6.6	7.6	6.3
Income adequacy			
Not enough (23)	5.9	6.7	6.8
Just enough (27)	6.8	7.2	6.3
Enough (22)	7.0	7.6	6.2
More than enough (9)	6.6	8.7	3.7

In interpreting these findings we need to bear in mind the relatively small number of participants in each group. The findings suggest that there were no specific trends related to sex, education or living situation but that older people (65+) and those with more income felt they had more control over how their lives turn out. Additionally, those with more than enough income felt that their LTCs had less of an impact on their quality of life than others did.

Self-management

General self-management behaviours

Mean responses for the self-management behaviours that are applicable to all people regardless of their type of condition are presented in Figure M7, with the number of responses to each presented in brackets. The positive behaviours achieved most often were: taking medication as advised, with 86% of the respondents saying they did that every day; and eating a healthy diet, with 21% indicating they managed that every day and 58% managing to eat healthily at least 5 days a week. On average, gentle exercise was achieved 3-4 times a week but close to a quarter (23.2%) managed to do gentle exercise only once a week or not at all. Eighty one percent of the Māori patients were non smokers, but those who did smoke tobacco were mostly daily smokers (13.4%). Nobody indicated they had seen a smoking cessation consultant during the previous year. More than two thirds (68.3%) were non drinkers and a further 23 percent consumed alcohol once or twice a week.

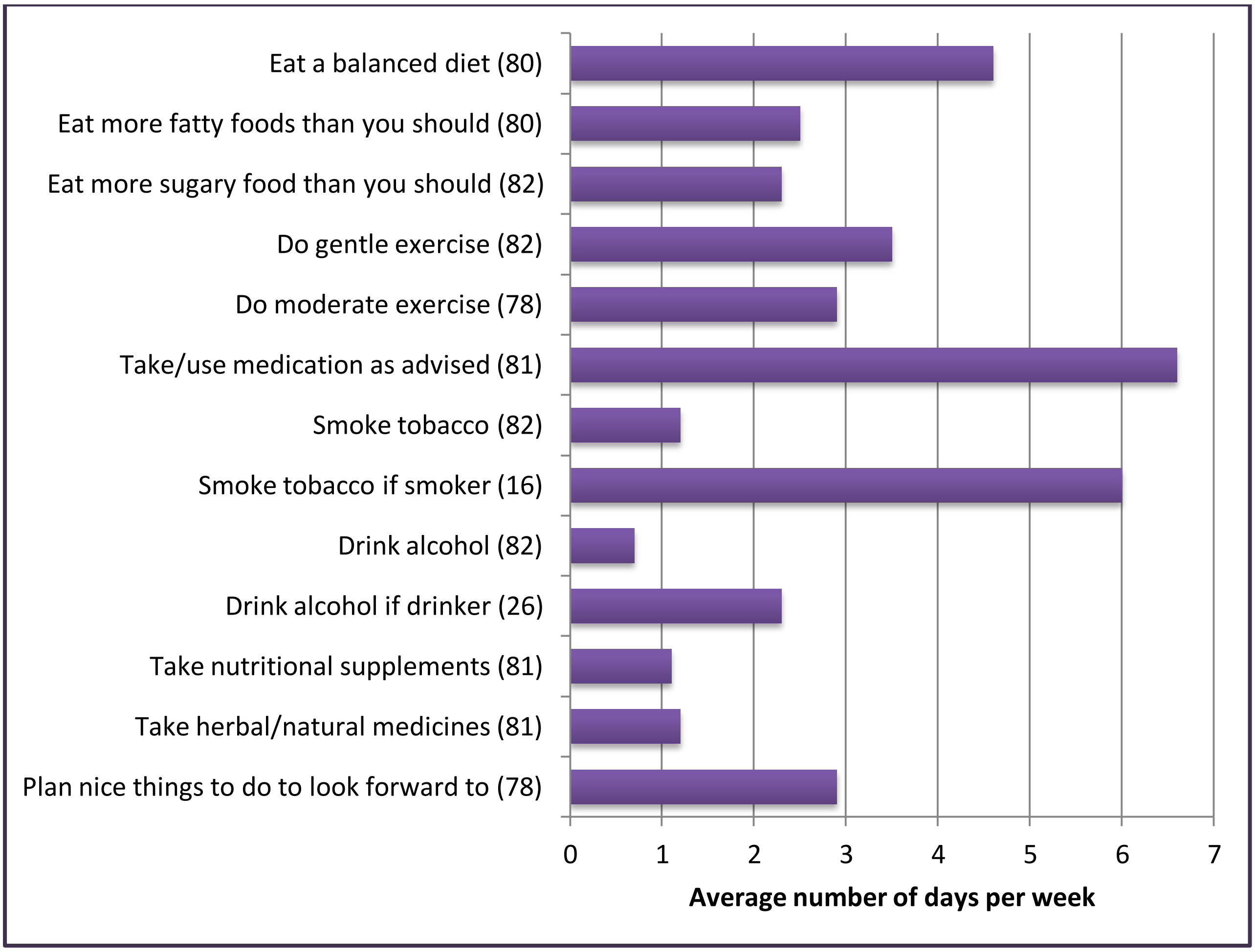


Figure M7: Number of days health related behaviours are carried out on average per week

As for the total sample, a Healthy Behaviours scale was created by combining responses to questions about eating a balanced diet, eating fatty and sugary foods (reverse coded), doing gentle exercise, taking medication as advised and planning nice things to look forward to. Mean scores (N=73) ranged from 2 to 6.3 with an overall mean of 4.4.

Self-management behaviours related to specific conditions

Responses to the self-management questions relating to specific conditions are presented in this section. Given the relatively small number of Māori respondents with angina (10), heart failure (8), CKD (7) and renal failure (4), these conditions are only summarised. However a more in-depth description is included with respect to pain, respiratory and diabetes.

Angina, heart and failure, CKD and renal failure

How well people felt they were managing with these conditions at home were rated on an 11-point scale (0-10) and the ranges and means are as follows:

Table M7: Self-management of long term conditions at home

Condition	N	Range	Mean	Median
Angina	11	5 - 10	8.1	8
Heart failure	8	5 - 10	8.1	8.5
Chronic kidney disease (CKD)	7	3 - 8	5.7	6
Renal failure	4	2 - 8	5.0	5

From these small numbers, it appears that those people with kidney disease or renal failure felt that they are managing less well than those with angina or heart failure.

Pain

The first pain question was part of the PROMIS measure and it enquired about the level of pain experienced in the previous week. Only 9 (11.1%) Māori participants indicated they had experienced no pain and 41 (50.6%) said they took regular pain medication.

Just over half (51.2%) of the Māori participants indicated they had ongoing pain and answered the related self-management questions which consisted of a list of 16 things people can do to help manage their own pain. Respondents were asked “how well do you manage these things to help control your pain levels” with three options provided; ‘not well managed’ (1), ‘fairly well managed’ (2) and ‘well managed’ (3). The number of responses to these questions ranged from 37 to 42.

‘Fairly well managed’ was the most common response to 13 of the 16 questions and three were said to be well managed by more than half of the respondents. The response frequencies and mean scores are presented in Figure M8.

According to the mean item scores, taking medication as prescribed and adding to it when needed were rated as being managed best and sleeping well and putting a good bedtime routine in place were rated as being managed least well.

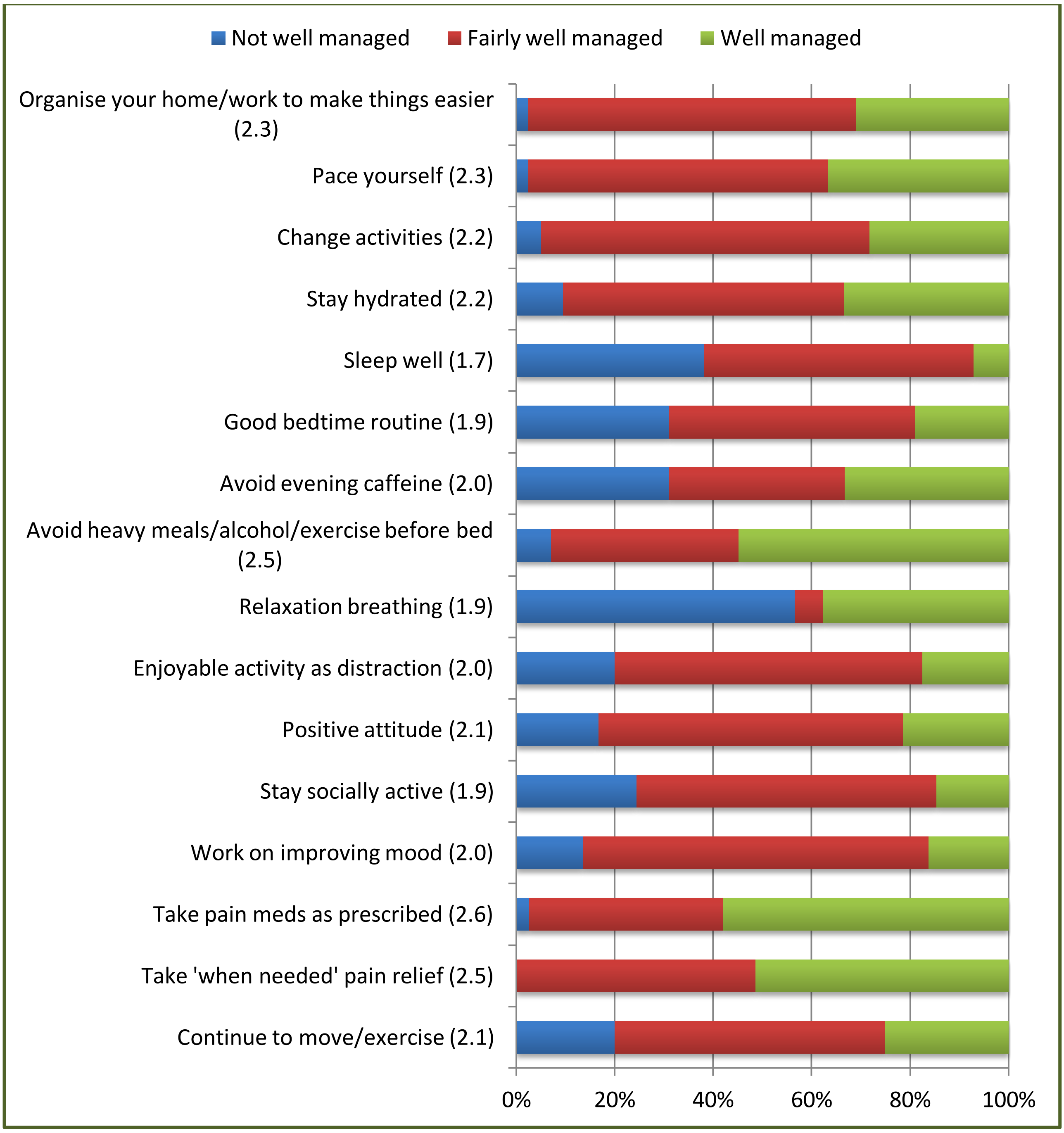


Figure M8: Māori participants' ratings of how well they do with specific pain management behaviours expressed as percentages

Using an 11 point rating scale ranging from 0 to 10, participants with pain (n=38) rated their overall management of pain at home as 6.9 on average. Scores ranged from 2 to 10, nearly all (94.8%) being 5 or higher. A Pain scale was calculated based on summed scores for all participants who had answered at least 14 of the 16 questions. Mean scores ranged from 1.3 to 3 out of a possible 3 and the overall scale mean was 2.1. Achievement of pain management behaviours was moderately correlated with how people felt they were managing their pain at home (r=.56, n=38) but was not related to their average level of pain during the last week. Overall pain management at home was weakly and negatively correlated with pain during the last week (r=-.25, n=38), the direction of the correlation suggesting that better management was associated with less pain.

Respiratory

The respiratory questions were answered by 36 people, 43.9% of the Māori sample. Two types of question were included, one related to self-management behaviours which were framed in the same way as the pain questions with three response options of ‘not well managed’, ‘fairly well managed’ and ‘well managed’. The second set was mostly knowledge questions. Apart from the pulmonary rehabilitation question, which only applied to 10 people, the number of responses ranged from 35 to 36. The self-management behaviour questions, their response frequencies and mean scores are provided in Figure M9.

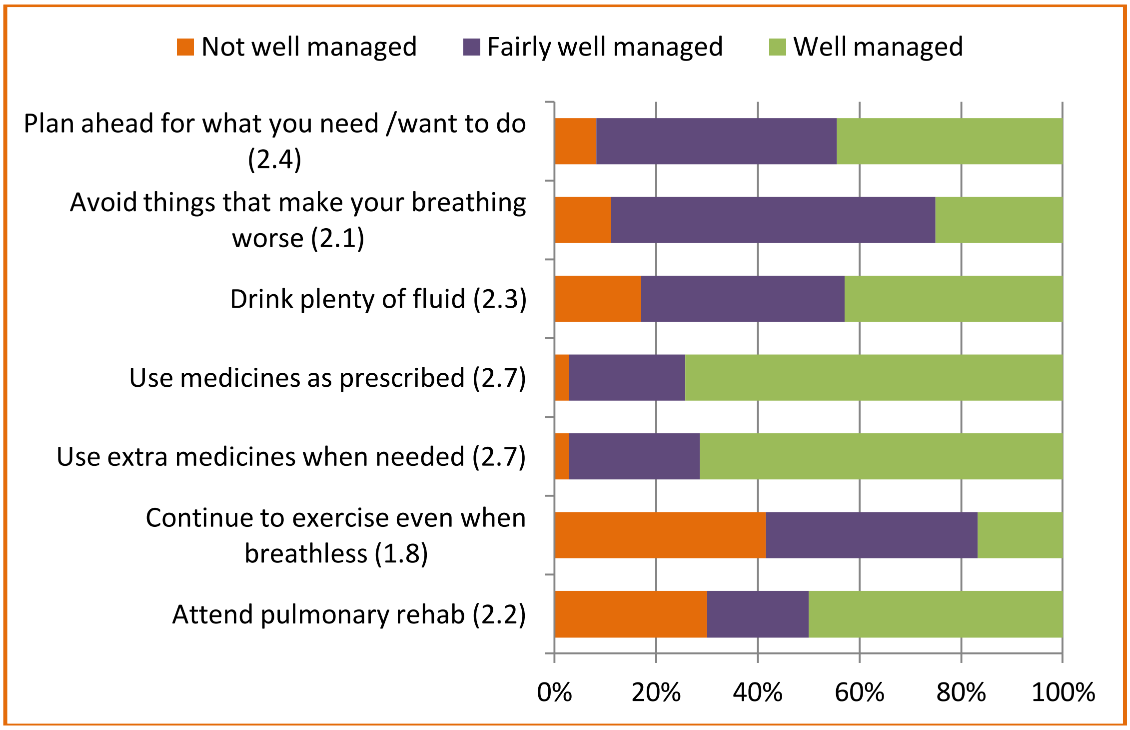


Figure M9: Māori participants’ ratings of their respiratory management behaviours expressed as percentages

The mean scores and the percentage of people indicating they were managing well suggest that the respiratory management behaviours best managed were related to medication; both using regular medications/inhalers as prescribed and using additional medication when needed. Poorer management was related to continuing to exercise when breathless, only 17% saying this was well managed, and avoiding things that make breathing worse which only a quarter of this group said they managed well.

Figure M10 presents the responses to the knowledge questions which were accompanied by ‘yes’ and ‘no’ response options. This suggests that knowledge is good overall, but that for some people knowledge around identification and response to fever and chest infections is lacking.

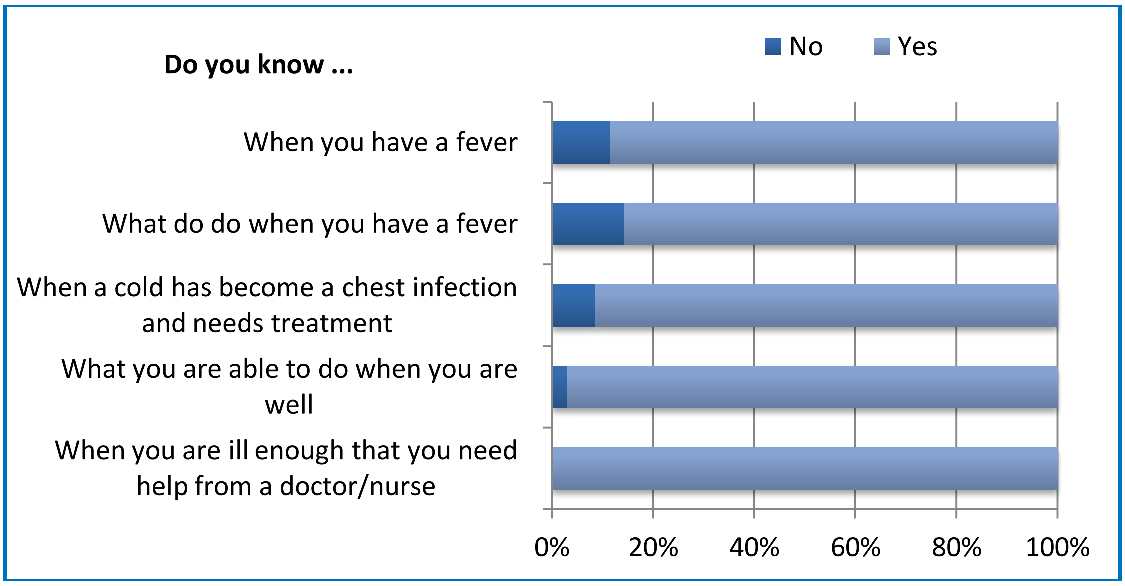


Figure M10: Māori participants' ratings of their knowledge of specific respiratory management behaviours expressed as percentages

An additional question asked whether participants have a 'flu vaccination each year and 82.9% indicated that they did.

These questions were combined to form a Respiratory scale, one missed response in each of the two sets was allowed when forming the scale. The pulmonary rehabilitation attendance question was left out due to it applying to less than a third of the group. The possible range of scores was from 1 to 5, the actual range was 3.2 to 5 with a mean of 4.2. The scores on this scale were correlated with overall health (r=.30, n= 35), physical health (r=.25, n=35) and Healthy Behaviours (r=.33, n=32).

Overall management of respiratory health at home was rated on an 11 point scale (from 0 - 10). Scores ranged from 4 to 10 (n=35) with an average rating of 8.0. They were correlated with physical health (r=.22, n=35) and effect of LTCs on QoL (r=-.21, n=35).

Diabetes

Forty three Māori participants (53.1%) indicated they had diabetes, but most questions were only answered by 41 of them. Responses to diabetes self-management questions are provided in Table M8.

Just under two thirds (61%) of Māori with diabetes test their blood glucose levels (BGLs) at home and of these 76% keep a record and most of these take their records to appointments with health professionals. Seventy two percent reported understanding what their BGLs mean and nearly all of those who test their levels at home knew what their targets for their BGLs were (96%). The frequency with which they test (Figure M11) is quite varied, with the largest subset (52%) testing 2-4 times per day. The majority (80%) test their BGLs at least once a day.

Table M8: Māori participants’ diabetes knowledge and self management behaviour expressed as frequency of positive responses					
Behaviour	N	‘Yes’ frequency (percent)	**Knowledge**	N	‘Yes’ frequency (percent)
Test own blood glucose levels	41	25 (61.0)	Know target BGLs	25	24 (96.0)
Keep a record of BGLs	25	19 (76.0)	Know target HbA1c	36	14 (38.9)
Take record of BGLs to health appointments	19	14 (73.6)	Understand what BGLs mean	39	28 (71.8)
Check feet regularly	41	179 (67.3)	Know when to seek help based on BGLs	25	20 (80.0)
Take tablets as advised	34	31 (91.2)	Understand how tablets work	34	24 (70.6)
Use insulin as advised	20	18 (90.0)			
Adjust own insulin doses	20	7 (35.0)			
Think about BGLs when adjusting insulin	7	6 (85.7)			
Think about activity when adjusting insulin	7	5 (71.4)			
Think about carbohydrate intake when adjusting insulin	7	5 (71.4)			

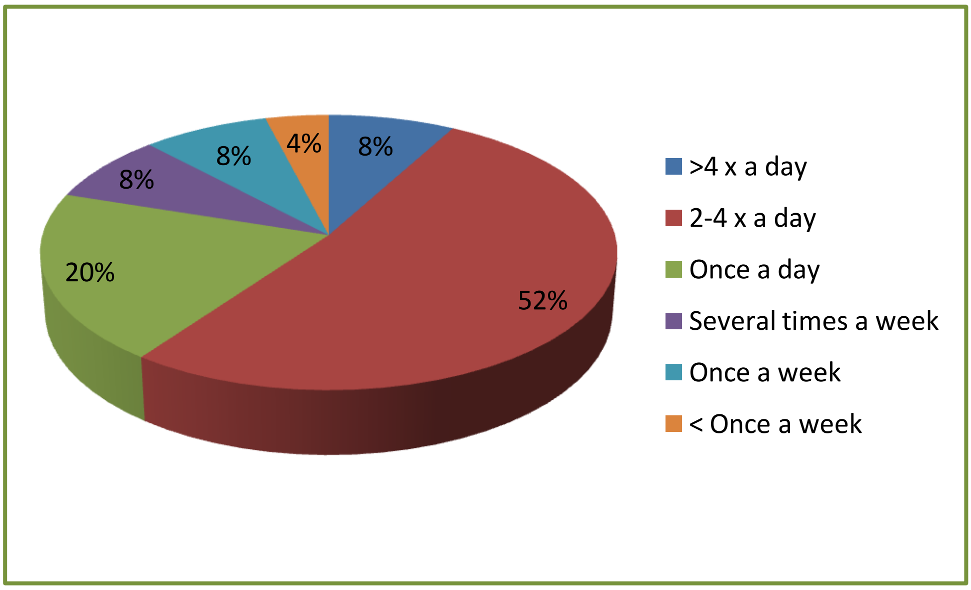


Figure M11: Frequency of blood glucose testing

Just under half (48.8%) of the participants with diabetes use insulin and 90% said they use it as advised. Just over a third (35%) titrate their own doses with most of those that do (85.7%) thinking about their BGLs when making adjustments, 71.4% factoring in activity levels and the same number thinking about carbohydrate intake. In total 4 of those who titrate insulin doses (57.1%) reported taking all three factors into consideration when adjusting their insulin. Of those taking tablets for their diabetes (n=34), 91.2% indicated they take them as advised and 70.6% understand how they work.

Although it is recommended that people with diabetes check their feet on a daily basis only two thirds of the participants with diabetes said they checked their feet regularly.

Overall diabetes self-management at home was recorded on the same 11-point scale. Scores (n=41) ranged from 4 to 10 and the mean score was 7.7. A correlation with overall health was found (r=.24, n=41).

Interactions with General Practice

Almost all of the 80 Māori participants had consulted a General Practitioner during the last year (95.0%) and over two thirds (68.8%) had seen a practice nurse. Just over a quarter had seen a CCN-LTC (28.8%) and just under a quarter (23.8%) had seen a specialist nurse/Nurse Practitioner. Twenty one people (26.3%) said they had seen only one type of practitioner at their general practice during the last year; 17 (21.3%) had seen a GP; 3 (3.8%) a PN; and 1 (1.3%) a CCN-LTC.

Most participants indicated that they received the most support for managing their long term conditions (n=79): at the general practice from GPs (57.0%); Practice Nurses (15.2%); or both (13.9%); or at home (5.1%). The remainder (8.7%) mentioned other sources such as the hospital or a combination of more than one other source.

Ratings of GPs and practice nurses with respect to a range of aspects of the patient/practitioner consultation were sought using a 6-point scale ranging from ‘very poor’ (1) to ‘excellent’ (6). The full set of responses is provided in Appendices MA and MB.

General Practitioners

The highest and lowest scoring items for GPs, based on their mean scores, are presented below.

When you see **the doctor** at your General Practice, how good are they at ...		**Mean**	**Excellent/very good %**	**Poor/very poor %**
TOP	Knowing about your medical history and current treatment	4.8	65.0	3.8
	Explaining your problems or any treatment you need in a way you can understand	4.7	61.6	3.8
	Asking fully about your symptoms and how you are feeling	4.7	61.5	1.3
	Making you feel comfortable about your physical examination	4.7	60.3	5.2
BOTTOM	Learning about and helping with your social support needs	4.2	45.5	16.9
	Spending enough time with you	4.3	48.7	14.1
	Knowing about you as a person not just a patient	4.3	50.1	12.6
	Involving family/whānau/fanau in decisions about your care	4.4	52.3	13.6

GP Interaction scale scores ranged from 1.4 to 6 with a mean of 4.6. Ten people had a mean score of 6 (12.2%) which means they rated every aspect of GP care/support as excellent.

Nurses

The same results, but this time in relation to nurses seen at the General Practice, are presented below.

	When you see **the nurse** at your General Practice, how good are they at ...	**Mean**	**Excellent/very good %**	**Poor/very poor %**
TOP	Introducing themselves and asking you to introduce yourself	4.8	65.8	3.8
	Asking fully about your symptoms and how you are feeling	4.8	63.3	2.6
	Making you feel comfortable about your physical examination	4.8	64.1	5.1
	Listening to what you have to say	4.8	61.5	2.6
BOTTOM	Learning about and helping with your social support needs	4.4	50.7	10.4
	Knowing about you as a person not just a patient	4.4	55.1	11.6
	Involving family/whānau/fanau in decisions about your care	4.5	54.4	8.7
	Knowing about your medical history and current treatment	4.6	57.7	6.4

These results show that the mean scores were slightly higher overall for nurses than for doctors. It appears that doctors are perceived as knowing more about the patients' medical history and treatment than nurses are, this item was in the top four for doctors and the bottom four for nurses. Doctors received the second to lowest score (thus ranked 13th) for spending enough time with patients, where as for nurses this was ranked higher, receiving a mean score of 4.6 which ranked it 9th.

The Nurse Interaction scale scores ranged from 1 to 6 with a mean of 4.7. Sixteen people (20.3%) rated everything as excellent. Scores overall were high, the percentages of scores within different ranges are shown in Figure M12.

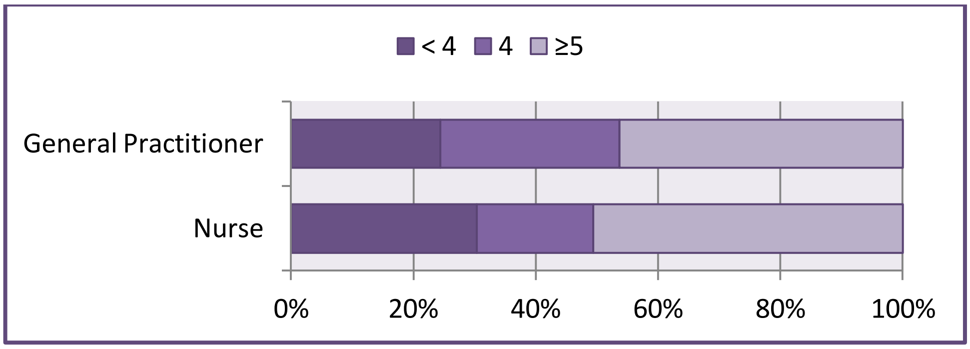


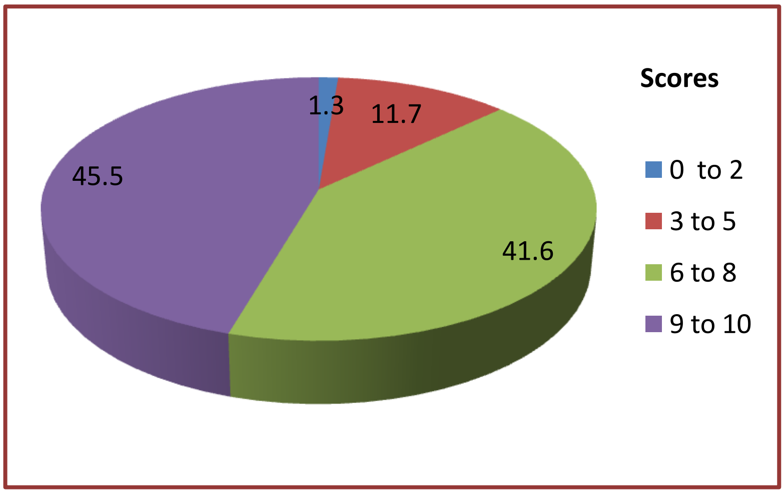
Figure M12: Māori participants' score distributions for GP Interaction and Nurse Interaction scales

These suggest that over a third of the sample were rating their interactions with General Practitioners and nurses at the General Practice as very good to excellent on average.

Three of the four items lower ranked items were the same. Knowing about you as a person not a patient, learning and helping with your social support needs, and involving whānau in decisions about your care were in this category. Whilst the mean scores were relatively high, this patient feedback suggests that there is room for improvement both in viewing the patient's health needs from a holistic perspective and in engaging whānau in care planning and delivery.

The overall ratings of care and support for managing long term conditions received from doctors and nurses at the General Practice (n=77) ranged from 2 to 10, with a mean of 7.9, a median of 8 and a mode of 10. A breakdown of the scores is provided in Figure M13.

Figure M13: Percent of overall General Practice scores for Māori participants



Although the number of people scoring 5 or lower was very small, a comparison between these and the rest identified that their ratings of all aspects of GP and Nurse Interaction were rated more negatively.

It has been suggested that Māori tend to rate services highly and are unwilling to express criticism about treatment or experiences[3] but also that younger Māori may be more prepared to express opinions and be more critical. A comparison of mean ratings of interactions with GPs and nurses and overall ratings of support from the GPT by age was done to see if there was any evidence of this. Results are presented in Figure M14.

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[3] Jansen, P., Bacal, K., & Crengle, S. (2008). He Ritenga Whakaaro: Māori experiences of health services. Mauri Ora Associates. http://www.nzdoctor.co.nz/media/6399/He-Ritenga-Whakaaro.pdf

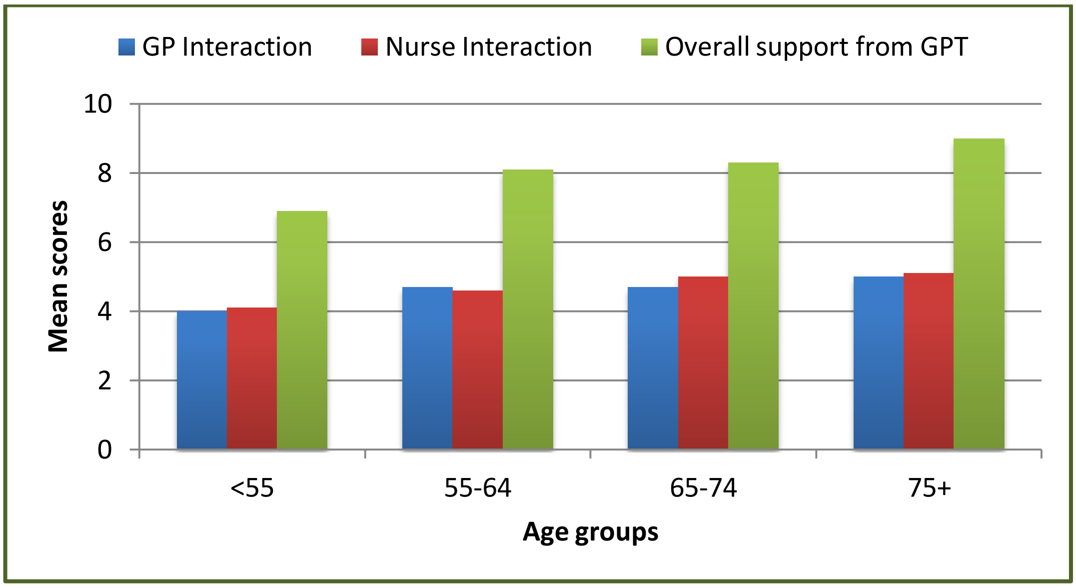

Figure M14: Mean GP and Nurse Interaction scores and overall GPT support by age group

From this it appears that there is some evidence of older Māori expressing greater satisfaction, especially in relation to support from general practice teams.

Care planning and goal setting

Participants were asked whether or not they had a written care plan (n=82) and 19 (23.2%) indicated they did, 47 (57.3%) did not and 16 (19.5%) were unsure. Of those who did have a written care plan, 16 (84.2%) said they had assisted in putting it together and 13 (72.2%) use their care plan for day to day health management. Sixteen (88.9%) said they were involved in reviewing the care plan, most commonly (47.1%) every three months.

Māori patients were divided into two groups according to whether or not they had a written care plan (yes and no/unsure). A series of independent t-tests were conducted to see if there were differences in patient activation, health or perceptions of general practice interactions based on care planning. The results are presented in Table M9.

Table M9: Mean score comparisons according to care planning done or not

	Yes	No/unsure	t (p)
Patient activation	70.3	62.4	ns
Physical health	41.8	41.8	ns
Mental health	45.4	44.0	ns
GP Interaction	5.2	4.4	3.1 (.003)
Nurse interaction	5.5	4.4	5.3 (.000)
GPT support	9.1	7.5	3.0 (.003)

These results suggest that more positive interactions with primary care align with care planning. The trend with respect to patient activation was the same as for the total sample with those who have a written care plan being more activated. For the Māori sample the mean difference was not significant due to the small sample size.

In a separate question patients were asked about health goals and around a quarter of the group said they had no goals. These people did not have a written care plan either. Thirty nine (52.7%, n=74) agreed that a health professional regularly checked on how they were getting on with their health goals, 18 (24.3%) said they did not check and a further 17 (23.0%) indicated they had no goals. Practitioner support for reaching health goals (n=77) was expressed by just over half of the respondents (42, 54.5%), 16 (20.8%) did not feel supported and 19 (24.7%) reported having no health goals. The same comparison of mean scores was performed in relation to practitioners checking on and supporting the attainment of health goals and the results are as follows:

Table M10: Mean score comparisons according to practitioners checking and supporting patient health goals or not

	Practitioner checks on health goals			Practitioner supports health goals		
	Yes	**No**	**t (p)**	**Yes**	**No**	**t (p)**
Patient activation	65.9	60.6	ns	66.8	60.2	ns
Physical health	42.9	38.6	ns	42.4	40.3	ns
Mental health	46.4	42.0	2.3 (.027)	46.0	41.1	2.2 (.029)
GP Interaction	5.2	3.9	5.0 (.000)	5.1	3.7	4.7 (.000)
Nurse interaction	5.2	3.9	4.9 (.000)	5.1	4.0	3.9 (.000)
GPT support	8.6	6.7	4.1 (.000)	8.6	6.5	4.3 (.000)

Similar results were found here but mental health differences were also found. Therefore those who reported that a practitioner checks on or supports them in reaching their health goals have better mental health and report more positive general practice interactions.

Discussion

The relatively small number of patients reporting that they have a care plan (23.2%) is of concern as individualised care planning is seen as key to the provision of effective long term condition management in the literature.[4] The positive relationship between care planning and health activation found in this study suggests that health behaviours of patients may be influenced when these tools are used, and that patients are generally better off. The 19.5% of people who were not sure if they had a care plan or not, is a strong message that there are health literacy issues surrounding the terminology and practice of care planning for patients. Whilst we did not ask patients directly if they had established health goals instead (or as part of the care plan), approximately three quarters of the group indicated that they did so, some with the support of practitioners and others without.

A quarter of the group indicated that they had neither health goals, nor a care plan. Whilst health literacy issues may be influencing these figures, it is a real concern that tools to support and grow client self management are not being used more generally in clinical practice. The 'best practice' of practitioners supporting patients to reach their health goals was reported by approximately half of the group, thus identifying an opportunity to increase the self management support provided by practitioners for the rest through regular review, encouragement and education.

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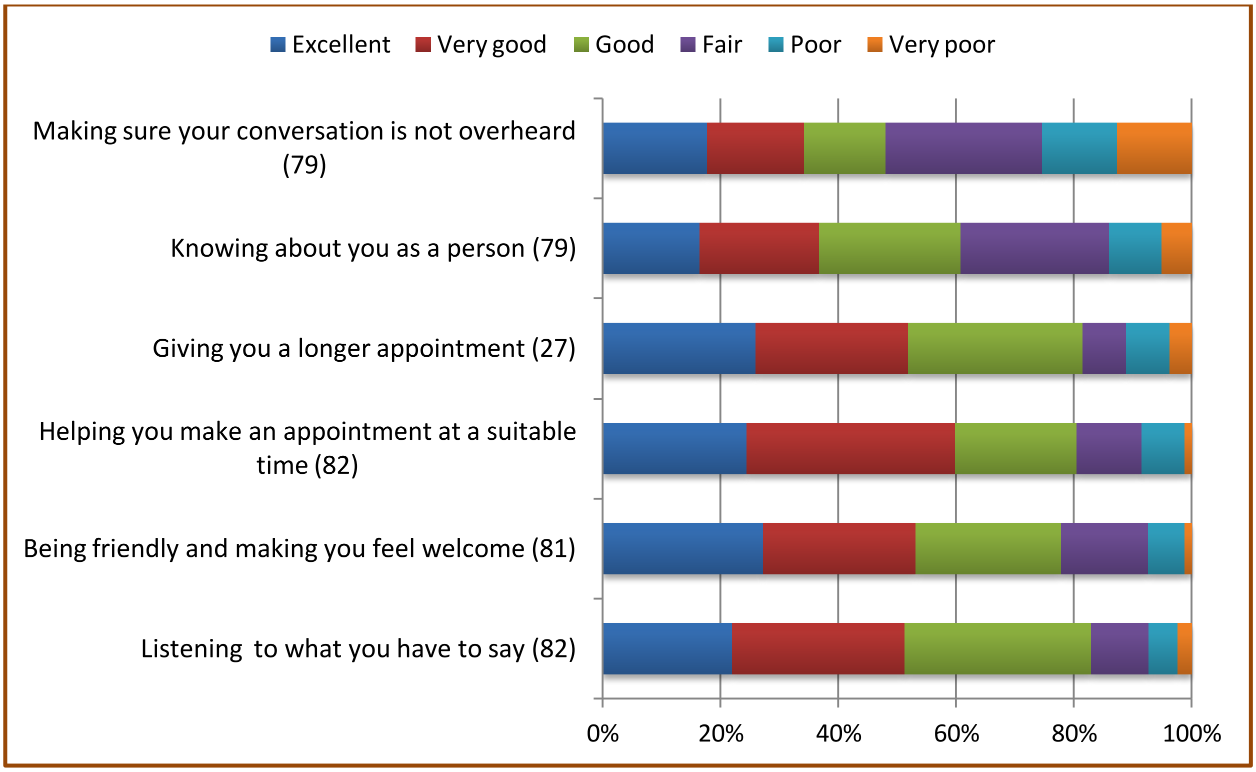
[4] http://www.improvingchroniccare.org.

Reception staff

The Māori participants' ratings of reception staff are presented in Figure M15.



FigureM15: Ratings of interactions with reception staff at general practices

About three quarters of the Māori patients rated reception staff behaviours to be excellent, very good or good, for 4 of the 6 items measured. Less positive scores were assigned to 'knowing about you as a person' (60.7%) and 'making sure that your conversation is not overheard' (48.1%). The same pattern was found for the total sample, but mean scores were lower for the Māori group indicating they were less satisfied with these aspects of interaction with reception staff.

Other practitioners

The number of practitioners seen, other than the GPT, ranged from none to six the average being 1.2. The most common types were specialist doctors (28, 34.1%), podiatrists (16, 19.5%) specialist nurses (14, 17.1%) and dietitians (10, 12.2%).

Medicines

A number of questions addressed medication related issues including use, understanding, prescriptions and consultations with community pharmacists.

Participants were asked how many days a week they take their medications as advised (N=81) and 2 (2.5%) indicated they never did, 70 (86.4%) said they did every day and the remaining 9 (11.1%) indicated they took medication as advised 2 to 6 days a week. In addition, 19 (23.5%) take nutritional supplements, 9 (11.1%) every day, and 22 (27.2%) take herbal/natural remedies, 7 (8.6%) on a daily basis.

Most of the Māori participants said they get all prescription items from the pharmacy (n=78, 85.9%), and the reasons provided for why they didn't collect them all were: cost; not liking some of the medications; and having some leftover. Seventeen (22.7%) people indicated they had collected but not used medicines and the reasons they provided were: forgetting to take them; side effects; hearing bad things about a particular medication; and a doctor 'not listening' and prescribing antidepressants when they weren't required. Six Māori participants indicated they had seen a community pharmacist for a one-on-one consultation.

Patient activation

Patient activation scores (n=81) ranged from 36.8 to 100, with a mean score of 64.2. Regarding level of patient activation, 11 (13.6%) Māori patients were categorised as level 1, 8 (9.9%) as level 2, 40 (49.4%) as level 3 and 22 (27.2%) as level 4.

The following figures (M16 to M18) provide a comparison of mean scores on a range of study variables grouped according to level of patient activation. The same general trends were found for the Māori participants as were found for the total sample with people at higher levels of activation giving more positive ratings of general practice interactions, and health status and indicating that their LTCs had less of an impact on their quality of life than those who are at a lower level.

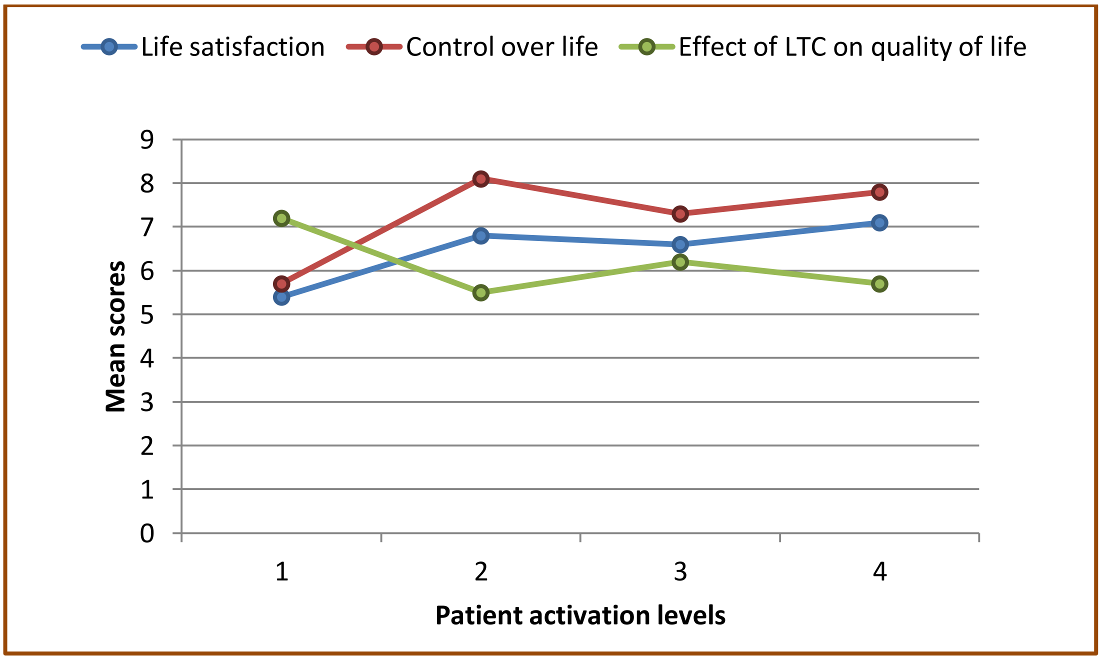


Figure M16: Mean scores on quality of life ratings for the four patient activation levels for Māori

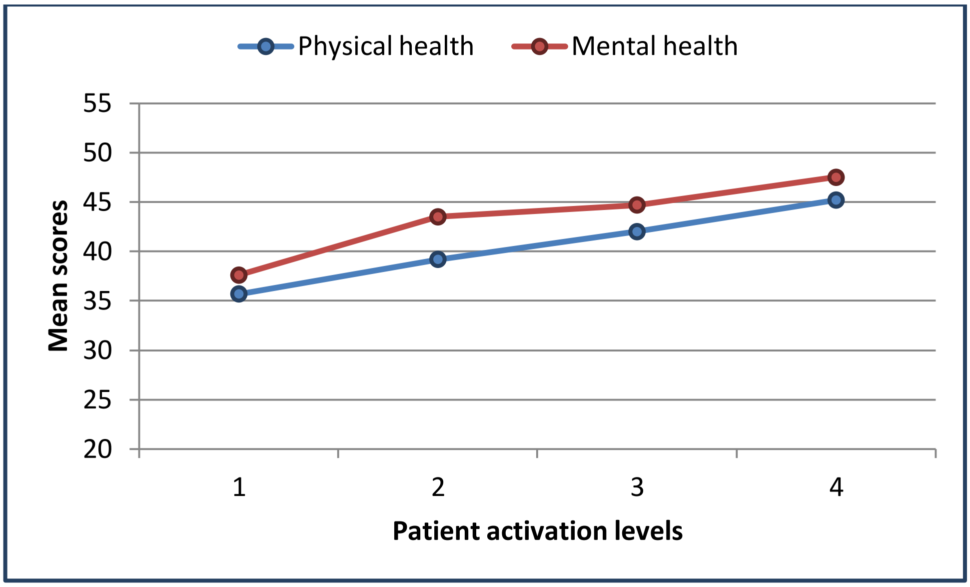


Figure M17: Mean physical and mental health scores for the four patient activation levels for Māori

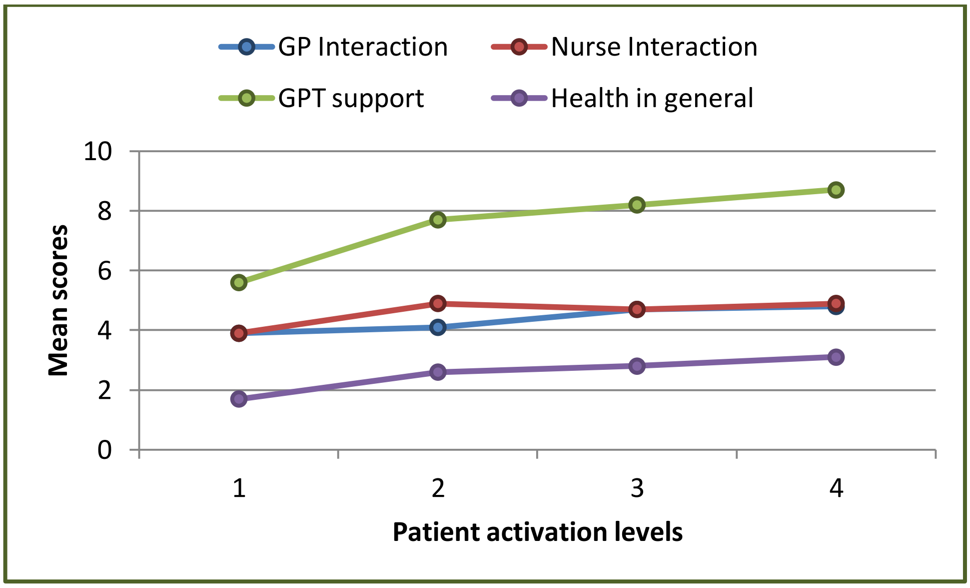


Figure M18: Mean general practice and general health ratings for the four patient activation levels for Māori

As with the full sample, correlations between patient activation and Healthy Behaviours were run for the Māori sample and the results appear in the box below.

Correlations between PAM® scores and healthy behaviours

Eat a balanced diet	r = .17
Eat more fatty foods than you should	r = -.31
Eat more sugary foods than you should	r = -.30
Do gentle exercise	r = .09
Take medication as advised	r = .20
Smoking	r = .04
Planning nice things to do	r = .17
Effect of LTC on QoL	r = -.12

From these results it appears that PAM® scores are not associated with anything other than eating more fatty or more sugary foods than is considered good. Both relationships were negative suggesting that healthier behaviour is linked to a higher degree of activation. The Healthy Behaviours scale was also moderately correlated with PAM® scores (r=.31, n=72).

The pattern of means for the Healthy Behaviours scale according to level of patient activation is as follows:

- Level 1: 3.6
- Level 2: 4.5
- Level 3: 4.5
- Level 4: 4.6

The same pattern of sex difference was found as with the total sample, women scored higher on patient activation (M=66.0) than men (M=61.9), however due to the smaller sample size this difference was not significant.

Correlations were found between patient activation and: Respiratory (r=.44, n=35); respiratory management at home (r=.37, n=35); Pain (r=.46, n=41); pain management at home (r=.38, n=37); diabetes management at home (r=.20, n=41).

Recommendations

The following points offer some practice recommendations (in bold) based on the study findings, with context provided.

Clinical conditions and lifestyle factors

- The most common long term conditions experienced by this group of Māori were chronic pain, diabetes and hypertension, all experienced by at least half of the participants, and respiratory conditions reported by close to half (44%).
- Pain appears to be problematic for many patients and **patient education and self management programmes should be explored to best meet the needs of people living with chronic pain**.
- **For Māori, it is particularly important that self management education/programmes are appropriate, easy to access, facilitated by the right people, and actively support clients gaining the necessary knowledge, skills and confidence to manage their LTCs on a daily basis.** The following findings indicate the need for additional self management and self management support for Māori:
    - A quarter of the participants reported experiencing anxiety or depression in relation to having long term conditions. **Improved access to support services including Massey**

  - **University's psychology services should be used for addressing anxiety and depression in Maori with long term conditions.**
  - Almost a quarter of the Māori participants managed to do gentle exercise only once a week or not at all. **Access to and encouragement of gentle exercise, of some type, should be promoted as a manageable goal and part of a healthy lifestyle.**

- Around 20% of Māori participants were smokers, more men than women, and most who smoked did so every day. However nobody reported having seen a smoking cessation consultant in the last 12 months. We are aware that services may have been offered and not taken up, however **it is recommended that further efforts be given to increasing access to smoking cessation for Māori, and in particular those with LTCs**.
- The number of Māori indicating they had issues with housing (54%), particularly with repairs needed and houses being hard to keep warm, was concerning as was the finding that 62% had not enough or only just enough income to meet their basic living needs. The recommendation here is that **primary care services make more effort to understand and respond to the broader social context within which their Māori patients are situated as this influences general health status and quality of life as well as their access to services and their experiences of health and other social systems.** As noted in the New Zealand Health Strategy: Future Directions (2016), "Connecting people with health services, and joining these up with disability services and social services, is essential. This integrated approach will improve people's overall wellbeing and get the greatest value from the public funding invested in health services" (p. 1).
- **Taking a life-course approach to understanding health** is recommended by the Ministry of Health[5] and incorporates factors outside the immediate health system (such as home environments and, involvement in work) as being vital to well-being and health. "Recognising this wider context is consistent with wai ora, which is an element of He Korowai Oranga, the Māori Health Strategy. Wai ora captures the idea that the environments in which we live have a significant impact on the health and wellbeing of individuals, whānau and communities" (p. 4).

Interactions with general practice

- All the measured aspects of interactions with GPs were rated as 'good' on average. The lowest rated ones, and therefore those that are recommended as being **in most need of attention, were: involving whānau in care decisions; knowing clients as people not just patients; spending enough time with them; and learning about and helping with social support needs.**
- A similar pattern was found in relation to interactions with nurses which were again all rated as 'good' on average. The only difference in the lowest rated aspects was that spending enough time was replaced by knowing about the patient's medical history and current treatment. Overall, the number of Māori participants indicating that nurses were poor or very poor at these things was considerably lower than the number saying GPs were. **There is a need to share the top and bottom scoring items for general practice; including those from the full sample results as well as those related to Māori experience.** This will provide invaluable information to general practice about the importance of specific aspects of care including holistic practice, and culturally competent care.

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[5] https://www.health.govt.nz/system/files/documents/publications/new-zealand-health-strategy-futuredirection-2016-apr16.pdf

- The lowest rated aspects of interactions with reception staff were being known as a person and making sure that conversations are not overheard. While the same pattern was found for the full sample, mean scores were lower for Māori suggesting lower levels of satisfaction. These perceptions may impact on access to primary care services for Māori and it is recommended that **reception staff is encouraged to build rapport with Māori patients and maintain privacy wherever possible. Some customer service refresher training (that includes culturally appropriate practice) may be useful for reception staff in the region.**

Care planning and goal setting

- Less than a quarter of Māori participants were sure that they had a written care plan despite individualised care planning being a key component of LTC care. A fifth were not sure if they had a care plan or not, suggesting health literacy issues around the terminology and practice of care planning for patients. As this was also identified in the full sample, it is recommended that **attention is given to Māori clients with LTCs to appropriately support the development of health goals and that a care plan is jointly developed to identify needs and determine how they might be addressed - whānau could also be included in this process.**

Pharmacy

- As Māori are at risk of developing long term conditions at an earlier age than non Māori, they are also at greater risk of developing co-morbidities and complications. Fourteen percent of the Māori participants admitted to not taking their medications as prescribed every day, and a similar number said they did not always collect prescribed items from the chemist - with cost and dislike of certain medication being cited as reasons. Twenty three percent said they didn't always use the medications they had collected, reasons being that they had forgotten to take some, didn't like the side effects and had heard bad things about medications. All of these concerns could be addressed through **utilisation of the Community Pharmacy Long Term Conditions Service which is designed to support self-management of medications.** Eligibility information and a screening tool for assessing eligibility is available[6]. **Explore and improve access to one-on-one consultations with community pharmacy for Māori clients so that more can benefit from this free service.**

Access to care

- General practice needs to be encouraged to **use risk and other practice profiling tools to identify those patients most in need of accessible and effective long term condition management.**
- **General practice should be supported to gain an increased awareness of the health services provided by Māori or Iwi providers for LTC management, such as the Disease State Management Nurses. These services may complement the care provided through general practice, and would enable a Māori model of healthcare to be delivered.**
- It is highly recommended that the findings about Māori access to care provided by a CCN:LTC and other specialist nurses be shared within the sector . These services are usually free and can often be provided at home. **Improving access to free, dedicated LTC care is a fundamental part of addressing inequality in our region.**

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[6] http://centraltas.co.nz/community-pharmacy/cpsa2012/services/long-term-conditions-service-3/#one

- Self management programmes are available in the region; however, historically the establishment of programmes to meet the specific needs of Māori has been difficult. Increasing access to these programmes is important as participants learn essential self management information and skills and gain confidence whilst being supported by the group. In order to improve access Central PHO may need to:
    - **re-explore the possibility of enabling peer-led Stanford Programmes to be delivered by Māori for Māori**
    - **Further utilise Māori or Iwi health services**
    - **Utilise facilities easily accessible and acceptable to Māori**
- General practice should **ensure that Māori are aware of the services and programmes that they are eligible for, such as the Māori or Iwi health services, LTC care provided by each general practice team and the Pharmacy LTC programme,** in order to raise awareness of what is available.
- The Whānau Ora Health Navigator service[7] may be an option for some people.

Support

- Māori participants clearly indicated that they relied on whānau for support (69%) and were socially connected with whānau members, 88% having at least weekly contact with whānau members outside the home. The involvement of whānau in health decision making and care delivery is key for Māori but this approach is not well accommodated by the individualised care focus of our health system. **For Māori, the individual and their whānau need to be included, as both parties contribute to self management.** Although the term 'self-management' can be problematic with its emphasis on 'self', self-management theory adopts an holistic perspective with an awareness of the importance of the broader social context for people with LTCs. This is in line with Māori, Pacific and South Asian people's emphasis on interdependence rather than independence.[8] **Further promotion of cultural competence in general practice is essential. It is recommended that whānau is involved in support for self-management of long term conditions as it increases the likelihood of healthy behaviours being adopted.** This also provides a preventative approach as many whānau members are at risk of developing the same conditions.[9]

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[7] http://www.health.govt.nz/our-work/populations/maori-health/whanau-ora-programme

[8] http://www.health.govt.nz/system/files/documents/publications/self-management-support-people-with-long-term-conditions-feb16_0.pdf

[9] https://www.hiirc.org.nz/page/17684/improving-responsiveness-to-Māori-with-chronic/?q=Māori%20&highlight=Māori&section=10539

Appendix MA: Percentage responses to questions about interactions with GPs at the general practice. The items are ranked from highest to lowest according to mean scores, and the **modal** (most frequent) responses and **highest** and **lowest** means are highlighted.

When you see the doctor at your General Practice, how good are they at …	**Excellent**	**Very good**	**Good**	**Fair**	**Poor**	**Very poor**	**N**	**Mean**
Knowing about your medical history and current treatment	30.0	**35.0**	21.3	10.0	3.8	0	80	**4.8**
Explaining your problems or any treatment you need in a way you can understand	**30.8**	**30.8**	24.4	10.3	3.8	0	78	**4.7**
Asking fully about your symptoms and how you are feeling	25.6	**35.9**	25.6	11.5	0	1.3	78	**4.7**
Making you feel comfortable about your physical exam	**30.8**	29.5	26.9	7.7	2.6	2.6	78	**4.7**
Listening to what you have to say	**29.9**	28.6	28.6	9.1	2.6	1.3	77	**4.7**
Introducing themselves and asking you to introduce yourself	28.2	**29.5**	28.2	6.4	7.7	0	78	4.6
Building a trusting relationship with you	**33.3**	24.4	23.1	9.0	9.0	1.3	78	4.6
Involving you in decisions about your care	**29.5**	28.2	23.1	14.1	2.6	2.6	78	4.6
Being patient with your questions or worries	**26.9**	**26.9**	**26.9**	10.3	7.7	1.3	78	4.5
Checking that you understand what is being talked about	24.4	**29.5**	21.8	17.9	5.1	1.3	78	4.5
Involving family/whānau/fanau in decisions about your care*	**27.3**	25.0	25.0	9.1	9.1	4.5	44	**4.4**
Knowing about you as a person not just a patient	**26.3**	23.8	23.8	13.8	8.8	3.8	80	**4.3**
Spending enough time with you	**25.6**	23.1	**25.6**	11.5	11.5	2.6	78	**4.3**
Learning about and helping with your social support needs	22.1	**23.4**	22.1	15.6	15.6	1.3	77	**4.2**

* 33 participants indicated this question was not applicable

Appendix MB: Percentage responses to questions about interactions with nurses at the general practice. The items are ranked from highest to lowest according to mean scores, and the modal (most frequent) responses and highest and lowest means are highlighted.

When you see the nurse at your General Practice, how good are they at ...	**Excellent**	**Very good**	**Good**	**Fair**	**Poor**	**Very poor**	**N**	**Mean**
Introducing themselves and asking you to introduce yourself	31.6	24.2	22.8	7.6	2.5	1.3	79	4.8
Asking fully about your symptoms and how you are feeling	32.9	30.4	25.3	8.9	1.3	1.3	79	4.8
Listening to what you have to say	35.9	25.6	25.6	10.3	1.3	1.3	78	4.8
Making you feel comfortable about your physical exam	33.3	30.8	25.6	5.1	3.8	1.3	78	4.8
Explaining your problems or any treatment you need in a way you can understand	32.1	26.9	28.2	11.5	0	1.3	78	4.8
Checking that you understand what is being talked about	30.8	29.5	23.1	11.5	2.6	2.6	78	4.7
Being patient with your questions or worries	32.1	25.6	24.4	12.8	3.8	1.3	78	4.7
Involving you in decisions about your care	29.5	29.5	25.6	9.0	3.8	2.6	78	4.6
Spending enough time with you	30.8	21.8	33.3	10.3	2.6	1.3	78	4.6
Building a trusting relationship with you	32.5	27.3	18.2	14.3	5.2	2.6	77	4.6
Knowing about your medical history and current treatment	33.3	24.4	19.2	16.7	3.8	2.6	78	4.6
Involving family/whānau/fanau in decisions about your care*	26.1	28.3	26.1	10.9	2.2	6.5	46	4.6
Knowing about you as a person not just a patient	29.5	25.6	16.7	16.7	9.0	2.6	78	4.4
Learning about and helping with your social support needs	28.6	22.1	23.4	15.6	7.8	2.6	77	4.4

* 33 participants indicated this question was not applicable