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Patterns of chronic pain in the New Zealand population

Clare Dominick, Fiona Blyth, Michael Nicholas

Abstract

Aim This study describes the prevalence and impact of chronic and recent pain in the New Zealand population and the groups most likely to report and use treatment for their chronic pain. Results are compared with international estimates.

Methods Data from the 2006/07 New Zealand Health Survey were analysed covering chronic pain, sociodemographic characteristics, chronic pain treatment use and health related quality of life. Prevalence estimates are presented. Chi-squared and logistic regression analyses were used to identify factors most strongly associated with chronic pain.

Results One in six (16.9%) New Zealanders reported chronic pain. Prevalence increased with age from 8.6% to 28.1%. People in the lowest two levels of three economic living standards categories had much higher adjusted odds (3.5 and 1.9) of reporting chronic pain than those with high economic living standards. Pacific and Asian peoples had much lower odds of reporting chronic pain compared with European/Other. Over a third (36%) did not use any treatment for their chronic pain while nearly half (48%) used some form of medical treatment. People with greater severity of recent pain, women and older age groups had much higher odds of using medical treatment for their chronic pain. A substantial minority did not report any treatment for their chronic pain. Higher numbers of chronic pain sites and greater severity of recent pain were associated with much lower scores across all the SF-36 physical and mental health domains.

Conclusions Patterns of chronic pain in the New Zealand are similar to those found internationally and indicate that chronic pain represents a major health issue in New Zealand.

Internationally chronic pain is recognised as a major health problem that has considerable impact individually, socially and economically.[1–3] It is viewed as meeting the criteria to be a condition in its own right, rather than a symptom of other conditions.[3,4] Chronic pain has received little attention compared with other long term conditions of similar prevalence and impact on individuals' function and health related quality of life.

Chronic pain is a complex biopsychosocial condition influenced by a wide range of psychosocial factors[5]. Pain is defined as 'an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage' and chronic pain is generally viewed as pain that persists beyond the normal time of healing.[6,7]

Internationally, general population surveys have been used to investigate the prevalence of chronic pain and variation in overall prevalence estimates is apparent across countries ranging from 10% to 30%.[7–11]

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Differences in prevalence estimates by sociodemographic characteristic are commonly found for age, gender, ethnicity and socioeconomic status.[7,9–13] Chronic pain prevalence increases with age.[10,12,14] Those in lower socioeconomic groups have been found to have higher chronic pain prevalence estimates, this includes individual and area level measures of socioeconomic difference.[8,12,15,16]

People with chronic pain have poorer health related quality of life and limitations in daily functioning. The severity of chronic pain and number of pain sites are associated with poorer physical and mental health and greater reductions in function.[17–22] Recent research has found an association between the severity of chronic pain (defined by both pain intensity and pain related disability) with increased risk of mortality.[23]

The prevalence and impact of chronic pain in the New Zealand population has remained largely unexamined since James' (1991) study,[24] due to a dearth of population level information. Although a more recent study conducted within the context of the World Mental Health Surveys estimated chronic pain prevalence in New Zealand, the operationalised definition diverged from other current chronic pain population surveys,[13,25] as it equated several diagnosed chronic conditions with chronic pain as part of the measure of chronic pain, rather than identifying chronic pain independent of underlying cause.

Given the international evidence showing the personal and societal impact of chronic pain, it is therefore pertinent to examine the current patterns of chronic pain within the New Zealand population and the relationship of these patterns with international evidence. The 2006/07 New Zealand health survey (NZHS) provided this opportunity as it included questions about chronic pain. The aim of this article was to describe the prevalence of chronic and recent pain in the New Zealand population, determine the strength of its association with a range of sociodemographic factors, describe treatment use for chronic pain, and describe the impact of chronic pain on health related quality of life for New Zealanders.

Methods

The data for this analysis came from the 2006/07 NZHS which is a nationally representative cross-sectional survey of 12,488 New Zealand adult residents, aged 15 years and over. The weighted survey response rate was 67.9% and participants included 3160 Māori, 1033 Pacific, 1513 Asian, and 8593 European/Other adults. The Ministry of Health commissioned survey was conducted from October 2006 to November 2007. Details of the sample, methods, and ethical approval were published by the Ministry of Health in 2008.[26,27] The Ministry of Health confidentialised the data provided for this analysis.

Respondents were asked whether they experienced chronic pain; to identify the site(s) of chronic pain; and for each site, to state the age of pain onset, the treatments they currently receive for the pain, and their attributed cause of the pain.

The definition of chronic pain used in the questionnaire is

> "pain that is present almost every day, but the intensity of the pain may vary. … pain that has lasted or is expected to last 6 months or more."

Respondents identified their pain sites from a show card list of nine and were able to nominate additional sites. The listed sites were head, neck, face jaw or joint below the ear, teeth or gums, back, chest, stomach, pelvic region, joints (fingers, wrists, elbows, shoulders, hips, and knees), Other. Three new site codes (legs, feet and arms) were derived from 'Other' nominations and included in the data set.

Data on severity of chronic pain was not available, however, the Medical Outcomes Study Short Form 36 (SF-36)[28] had an item asking respondents about the intensity of pain they had experienced in the past 4 weeks. This has been used as a measure of recent pain severity. The number of reported chronic pain sites has also been used to differentiate groups within the chronic pain population, as the number of pain sites is associated with health related quality of life and functional outcomes[18–20].

In summary, three measures of pain were used in this analysis:

- Whether chronic pain was reported or not.
- The number of chronic pain sites (0, 1, 2, 3 or more).
- The intensity of bodily pain reported in the past four weeks of which two groupings are included (1) 'No to mild' versus 'moderate to very severe' recent pain and (2) 'No to moderate' versus 'severe or very severe' recent pain.

Sociodemographic characteristics included in the analysis were age, gender, ethnicity, economic living standards, employment status, whether living alone or not, and rural or urban residence. Survey respondents were able to nominate multiple ethnic identifications. Both multiple identification and prioritised ethnicity categorisations were used in analysis. Prioritised ethnicity was used for the logistic regression analyses. It includes only one ethnic category nominated by the respondent, according to a predetermined hierarchy. The four categories used for prioritised and multiple ethnic identification categories are Māori, Pacific, Asian, and European/Other, in order of prioritisation.

The Economic Living Standards Index (ELSI) has been used as the primary measure of socioeconomic status in this analysis. It is an individual measure of economic living standards which was developed and validated within the New Zealand population. It records restrictions in the ownership of possessions and social participation due to cost, day to day economising behaviour, and self-ratings of current economic position.[29]

The SF-36 was used as the measure of health related quality of life.[28] It has 36 items covering physical and mental health status in relation to eight health domains: physical functioning, role limitation (physical), bodily pain, general health perceptions, vitality (energy/fatigue), social functioning, role limitation (emotional), and general mental health. Responses to each of the SF-36 items are scored, and expressed on a 0–100 scale for each of the eight health domains.

Prevalence estimates and weighted population estimates (not sample frequency) along with their associated 95% confidence intervals are presented. Analyses were conducted with SAS version 9.2.[30] The surveyfreq, surveymeans and surveylogistic procedures were used with Taylor Series estimation. Results were weighted using the calibrated weight calculated by the Ministry of Health,[26,27] which took into account the inverse probability of selection and New Zealand population counts by age, gender, ethnicity and DHB area. Chi-squared analyses and logistic regression were used to identify the factors most strongly associated with chronic pain.

Two logistic regression models are presented. The first model incorporates all survey respondents and has chronic pain status as the dependent variable and sociodemographic characteristics as independent variables.

The second model considers only those respondents reporting chronic pain, and use of medical treatment for pain is the dependent variable. Sociodemographic characteristics and recent pain severity are the independent variables.

Odds ratio estimates are reported for each of the models and each of the odds estimates controls for all other factors included in the model. Results were checked using the Jackknife variance estimation method. Chronic pain site location is described using a simple count of nominations. Levels of missing data were very low (less than or equal to 1%) across all analyses included in this article.

Results

Overall, 16.9% (16.1–17.8) of the New Zealand adult population (aged 15 years and over) reported chronic pain and 22.6% (21.6–23.5) of the adult population had experienced moderate to severe recent pain. Nearly two-thirds (63.6%) of those who reported chronic pain reported moderate to severe recent pain (Table 1) while a fifth (21.4%) reported severe or very severe recent pain (table not presented).

Table 1. Chronic pain status by intensity of recent pain (moderate to very severe)

Chronic pain status	Recent Pain status	Weighted Frequency (NZ Pop)	Percent (NZ Pop)	95% CI	Row Percent	95% CI row
Chronic pain	None – Mild	192,182	6.2	(5.6–6.7)	36.4	(33.9–38.9)
	Moderate – Very severe	335,828	10.8	(10.1–11.4)	63.6	(61.1–66.1)
	Total	528,010	16.9	(16.1–17.8)	100	
No chronic pain	None – Mild	2,224,262	71.3	(70.3–72.3)	85.8	(84.9–86.7)
	Moderate – Very severe	368,071	11.8	(11.1–12.5)	14.2	(13.3–15.1)
	Total	2,592,332	83.1	(82.2–83.9)	100	(33.9–38.9)
Total	None – Mild	2,416,444	77.4	(76.5–78.4)		
	Moderate – Very severe	703,899	22.6	(21.6–23.5)		
	Total	**3,120,343**	**100**			

Chronic pain prevalence increased with age from a low of 8.6% for 15 to 24 year olds to a high of 28.1% for those aged 75 years and over. In New Zealand, unlike patterns internationally, chronic pain prevalence did not differ significantly between males and females except for the 65 to 74 year age group ($p<0.01$) (Table 2). The overall unadjusted prevalence for females was 17.7% (16.6–18.8) and for males, 16.1% (14.8–17.4).

Table 2. Prevalence of chronic pain by age group and gender

Age Group (years)	Females			Males		
	Percentage of age group	95% CI	Weighted frequency (NZ Pop)	Percentage of age group	95% CI	Weighted frequency (NZ Pop)
15–24	8.0	(5.8–10.2)	22,011	9.1	(6.2–12.1)	25,400
25–34	11.9	(9.5–14.2)	31,756	11.6	(8.6–14.6)	27,805
35–44	14.1	(12–16.3)	45,647	16.1	(13.3–18.8)	46,111
45–54	20.5	(17.6–23.5)	58,776	17.7	(14.5–21.0)	47,796
55–64	24.0	(20.7–27.3)	51,017	20.3	(17.0–23.7)	41,733
65–74	30.2	(26.1–34.3)	41,973	22.9	(19.1–26.7)	29,558
75+	30.0	(25.7–34.3)	35,694	25.6	(20.7–30.6)	22,732

Respondents who identified as European/Other were more likely to report chronic pain than those who did not identify as European/Other, while respondents who identified as Pacific or Asian were less likely to report chronic pain than those who did not identify with those ethnic groups (Table 3).

Results for Māori depended on the comparison group used in the analysis. Māori were equally as likely to report chronic pain as those who did not identify as Māori (Table 3). However, when the total population was used as a comparator and age and gender controlled, Māori had higher prevalence rates. In most analyses, prevalence rates for Māori were not significantly different from the prevalence in the European/Other population after controlling for other sociodemographic factors.

Table 3. Chronic pain prevalence by ethnic identification (all identifications)

Ethnic identification	Chronic pain status	Weighted frequency (NZ Pop)	Row %	95%CI row
Asian identification[1]	Chronic pain	26,705	9.6	(7.8–11.3)
No Asian identification	Chronic pain	501,305	17.6	(16.8–18.5)
European /Other ethnic identification[2]	Chronic pain	460,975	18.1	(17.1–19.0)
No European /Other identification	Chronic pain	67,035	11.8	(10.5–13.0)
Māori identification[3]	Chronic pain	61,412	17.3	(15.5–19.1)
No Māori identification	Chronic pain	466,599	16.9	(16.0–17.8)
Pacific identification[4]	Chronic pain	19,775	12.0	(9.6–14.4)
No Pacific identification	Chronic pain	508,235	17.2	(16.3–18.1)

[1] Asian versus No Asian identification significant difference p<0.0001

[2] European/Other versus No European/Other identification significant difference p<0.0001

[3] Māori versus No Māori identification not significant

[4] Pacific versus No Pacific identification significant difference p<0.0004

Chronic pain prevalence was strongly associated with economic living standards (ELS). The proportion of people who reported chronic pain increased as ELS decreased ($p<0.0001$) (Figure 1). This relationship was also found for those reporting moderate to severe recent pain compared with those reporting no or mild recent pain ($p<0.0001$).

Chi-squared analysis indicated that domiciliary status (living alone) and employment status (those not in work and not looking for work) were associated with chronic pain status ($p<0.0001$). The association with living alone did not remain significant when other sociodemographic factors were taken into account.

The number of chronic pain sites reported ranged from 0 to 9. Combining all nominations, the most frequently nominated sites were Joints (29.9% of all nominations), Back (24.1%), Neck (12%), Pelvic Region (8%), Head (6.9%), Stomach (5.8%), and Chest (3.9%).

Nearly two-thirds (64.7%) of those experiencing chronic pain reported only one pain site (Table 4). Higher numbers of sites were reported by older age groups ($p<0.0001$). Women reported greater numbers of chronic pain sites than men ($p<0.0001$). Respondents reporting greater numbers of sites were also more likely to report greater severity of recent pain ($p<0.0001$). Two-thirds (67%) of those reporting chronic pain had lived with chronic pain for 5 or more years and a quarter (27%) had lived with chronic pain for 40% or more of their lives.

Figure 1. Prevalence of chronic pain by Economic Living Standard Index

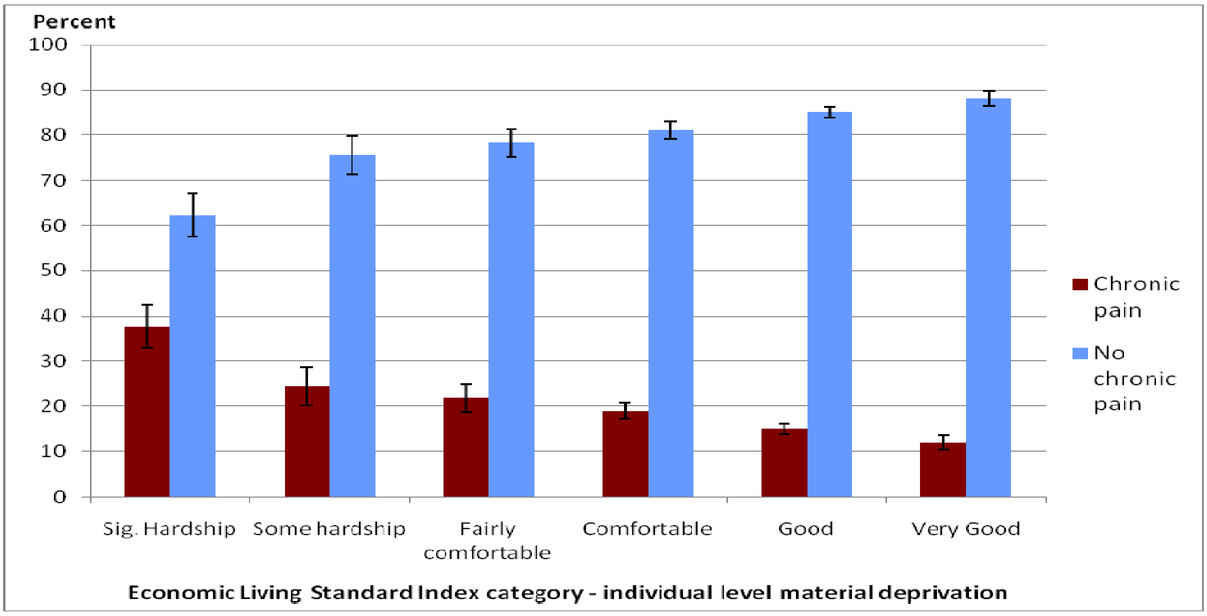


Table 4. Number of chronic pain sites

Number of chronic pain sites	Weighted frequency (NZ pop)	Percent (Chronic pain pop in NZ)	95% CI
1	341,731	64.7	(62.2–67.3)
2	103,569	19.6	(17.6–21.7)
3 or more	82,710	15.7	(13.7–17.6)
Total	**528,010**	**100**	

Table 5. Percentage of chronic pain population by attributed reason for their chronic pain (First pain site recorded)

Reason	Weighted frequency (NZ pop)	Percent (Chronic pain pop in NZ)	95% CI
Age-related	58,507	11.1	(9.5–12.6)
Health condition	146,375	27.7	(25.4–30.1)
Injury or accident	219,296	41.5	(39.0–44.1)
Work-related	21,782	4.1	(3.1–5.2)
Operation	16,037	3.0	(2.2–3.9)
Lifestyle or habit	14,207	2.7	(1.8–3.6)
Physical activity	6,642	1.3	(0.7–1.8)
Other	26,643	5.1	(4.0–6.1)
Not known	18,522	3.5	(2.5–4.5)

Survey respondents were asked what they thought caused their chronic pain. The most frequent attributions (concerning the first pain site recorded in the interview) were that their chronic pain was related to an injury or accident (42%), a health condition (28%) or age (11%) (Table 5). Men were more likely than women to attribute the cause of their chronic pain to an injury or accident and women more likely than men to attribute it to a health condition.

Table 6. Odds ratio estimates for model of chronic pain in relation to sociodemographic characteristics

Effect for sociodemographic variables (adjusted for other variables in model)		Odds ratio Point Estimate	95% Wald CI	P value
Economic living standard (ELS)	Hardship vs Good/very good Comfortable vs Good/very good	3.5 1.9	(2.9-4.2) (1.7-2.2)	<.0001 <.0001
Age group	45–64 vs 15–44 65–99 vs 15–44	2.0 2.8	(1.8–2.4) (2.3–3.3)	<.0001 <.0001
Ethnicity	Asian vs European/Other Māori vs European/Other Pacific vs European/Other	0.5 0.9 0.5	(0.4–0.6) (0.8–1.1) (0.4–0.7)	<.0001 0.292 <.0001
Domiciliary status	Lives alone vs Lives with other(s)	1.0	(0.9–1.2)	0.6732
Gender	Females vs Males	1.0	(0.9–1.2)	0.8401
Employment	Looking for vs In work Other vs In work	1.0 1.2	(0.8–1.4) (1.1–1.4)	0.8774 0.0025
Urban domicile	Not major urban vs Major urban	1.1	(1.0–1.3)	0.0536

Logistic regression results showed that economic living standards (ELS), age and ethnicity were strongly associated with reporting chronic pain when other sociodemographic characteristics were controlled. Those with low ELS (‘hardship’ categories) had 3.5 higher odds of experiencing chronic pain than those with high ELS (‘good’ or ‘very good’ categories). Those with moderate ELS (‘comfortable’ categories) had 1.9 higher odds of experiencing chronic pain compared with those with high ELS (Table 6).

Those aged 45 to 64 years had twice the odds and those aged 65 years and over had 2.8 higher odds of reporting chronic pain compared with 15 to 44 year olds, when controlling for other sociodemographic factors. Using prioritised ethnicity categories, logistic regression results showed that those identifying as Pacific or Asian had lower odds of reporting chronic pain compared with European/Other and that the odds of Māori reporting chronic pain was the same as for European/Other. Those ‘not in work and not looking for work’ at the time of the interview had 1.2 higher odds of reporting chronic pain.

Respondents were asked about the treatments they currently used for their chronic pain. Considering the first pain site only, over a third (36%) of those with chronic pain did not use any treatments for their pain while 40% mentioned ‘medical’ treatments only. A further sixth (16.1%) used a range of other treatments and a smaller percentage (7.9%) used a combination of ‘medical’ and ‘other’ treatments (Table 7). Over half (53.8%) of those who reported ‘moderate to very severe’ recent pain had used some medical treatments for their chronic pain compared with just over a third (37.7%) of those who reported ‘no to mild’ recent pain ($p<0.0001$) (Table 7).

Those who reported 'severe or very severe' recent pain were more likely to have used some medical treatments (63.6%) for their chronic pain compared with those who reported 'no to moderate' recent pain (43.7%) (p<0.0001). A quarter (24.7%) of those reporting 'severe or very severe' recent pain were not using any form of treatment for their chronic pain.

Table 7. Severity of recent pain by current treatments for first chronic pain site recorded in interview

Severity of recent pain	Treatments for chronic pain site	Weighted frequency (NZ pop)	Percent (chronic pain pop)	95% CI	Row %	95%CI row
None to mild	Medical[1]	61,845	11.7	(10–13.4)	32.2	(28.1–36.3)
	Other[2]	35,986	6.8	(5.4–8.2)	18.7	(15.2–22.3)
	Medical and Other	10,664	2.0	(1.2–2.8)	5.5	(3.4–7.7)
	No treatment	83,688	15.8	(13.9–17.8)	43.5	(39.1–48)
	Total	192,182	36.4	(33.9–38.9)	100	
Moderate to very severe	Medical[1]	149,926	28.4	(26.1–30.7)	44.6	(41.5–47.8)
	Other[2]	48,940	9.3	(7.7–10.8)	14.6	(12.2–16.9)
	Medical and Other	30,821	5.8	(4.6–7.1)	9.2	(7.3–11.1)
	No treatment	106,141	20.1	(18.1–22.1)	31.6	(28.7–34.5)
	Total	335,828	63.6	(61.1–66.1)	100	
Total	Medical[1]	211,771	40.1	(37.6–42.6)		
	Other[2]	84,926	16.1	(14.1–18.1)		
	Medical and Other	41,485	7.9	(6.4–9.3)		
	No treatment	189,829	36.0	(33.5–38.4)		

[1] 'Medical' treatment categories include medicines/tablets/pills, injections, or waiting for surgery.

[2] 'Other' treatment categories in the survey data include Exercise or physiotherapy, Osteopathy, Chiropractor, Complementary or alternative treatments, Diet/diet control, Dietary supplements, Sleep/rest, Health treatment/hot baths, Improved footwear, Cream, or Other.

Logistic regression results (Table 8), with the dependent variable 'using medical treatment', showed that those who reported 'moderate to very severe' recent pain had 1.8 higher odds of using medical treatment compared with those who had experienced 'no to mild' recent pain when controlling for sociodemographic factors. Women had 1.8 higher odds of using medical treatment compared with men. Those aged 45 to 64 years and those aged 65 years and over had 1.8 and 1.7 higher odds respectively of using medical treatment compared with 15 to 44 year olds.

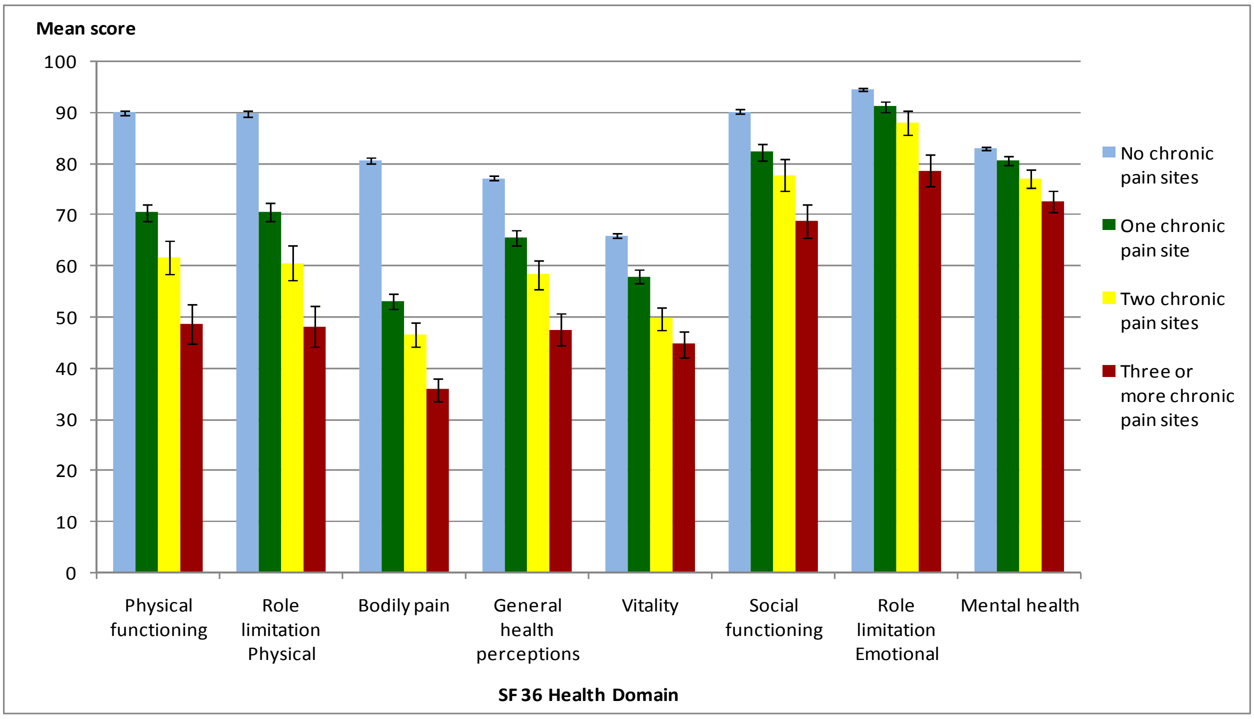
The odds of using medical treatment for chronic pain when reporting 'severe to very severe' recent pain were 2.1 higher than those who reported 'no to moderate' recent pain.

Significant differences were found between SF-36 mean scores for those reporting and those not reporting chronic pain (p<0.001). Respondents reporting chronic pain had significantly lower SF-36 scores (poorer health related quality of life) across all SF-36 domains in comparison with those not reporting chronic pain.

Table 8. Odds ratio estimates model of likelihood of using medical treatment for first chronic pain site (chronic pain population)

Effect for sociodemographic variables and recent pain (adjusted for other variables in model)		Odds Ratio Point Estimate	95% Wald CI	P value
Recent pain	Moderate to very severe vs None to mild	1.8	(1.4–2.2)	<.0001
Gender	Females vs Males	1.8	(1.5–2.3)	<.0001
Age group	45–64 vs 15–44	1.8	(1.3–2.3)	<.0001
	65–99 vs 15–44	1.7	(1.2–2.4)	0.0038
Employment	Looking for vs In work	1.5	(0.9–2.4)	0.1338
	Other vs In work	1.3	(1.0–1.8)	0.0402
Ethnicity	Asian vs European/Other	1.1	(0.7–1.8)	0.6151
	Māori vs European/Other	0.8	(0.6–1.0)	0.0739
	Pacific vs European/Other	1.3	(0.8–2.3)	0.3173
Economic living standard (ELS)	Hardship vs Good/very good	0.9	(0.7-1.3)	.073
	Comfortable vs Good/very good	0.9	(0.7–1.1)	0.2162
Urban domicile	Not urban vs Major urban	0.9	(0.7–1.1)	0.2197

Figure 2: Health-related quality of life (SF-36 domain mean score) by number of chronic pain sites



The number of chronic pain sites was also directly associated with health related quality of life. Higher numbers of chronic pain sites were associated with lower SF-36 scores across all physical and mental health domains (Figure 2).

The severity of recent pain was also associated with health related quality of life. Those reporting ‘moderate to severe’ recent pain had lower SF-36 scores than those reporting 'no to mild' recent pain. This was the case for both those reporting and not reporting chronic pain ($p<0.0001$).

Discussion

Results from this analysis show that chronic pain affects one in six adult New Zealanders. This is slightly lower than estimates found in Australia and several European countries (19%),[8–10,31] but higher than that found in some Asian countries (<11%).[2] Internationally some variation in estimates is expected due to variation in the definitions of chronic pain and the methods used.[7,11] The NZHS defined chronic pain as pain lasting for six months whereas most of the comparison studies' definitions used three months duration. NZHS results were weighted to accord with the New Zealand population demographics.

The use of these definitions and methods may explain the slightly lower prevalence estimate compared with Australian and European studies, but not with Asian countries. The lower prevalence estimate found for Asian ethnic groups is consistent with prevalence estimates found in Hong Kong[2] and Malaysia (unpublished report). Lower prevalence estimates for Pacific people were also found in the New Zealand Mental Health survey, although as the operationalised definition diverged from other population surveys of chronic pain,[25] the absolute value was higher than that found in this survey. These results in conjunction with those from other surveys suggest there may be more systematic variation in reporting of chronic pain across sociocultural groups which warrants more attention.

Overall prevalence in New Zealand did not vary significantly by gender, although there was a preponderance of women reporting chronic pain in older age groups, and women were more likely than men to report multiple pain sites. This contrasts with findings in Australia, Denmark and Norway where lower estimates were obtained for men (17.1%, 16%, 23.3%) compared with women (20%, 21%, 27.6%).[8,10,31] As expected, chronic pain prevalence in New Zealand increased with age.

Several significant relationships were found, but, as results derive from a cross-sectional survey, only associative and not causal relationships have been determined. Chronic pain was strongly associated with economic living standards (ELS). In line with evidence internationally, the odds of reporting chronic pain were much greater for people with low ELS compared with those with higher ELS. Associations between measures of socioeconomic status and health outcomes are well established. However, the contribution of social mechanisms to chronic pain outcomes is less well explored.[32]

In this analysis, recent pain severity was measured using a single item verbal descriptor scale of pain intensity and any interpretation needs to bear in mind there are a range of definitions of pain severity. This also limits comparison with other general population surveys. A fifth (21.4%) of respondents reporting chronic pain experienced severe or very severe recent pain at the time of the interview.

In New Zealand, two-thirds of those reporting chronic pain had experienced chronic pain for 5 or more years. The impact of chronic pain on health related quality of life was dramatic with much poorer health related quality of life associated with those reporting chronic pain.

Similar to results found internationally,[17–22] higher numbers of chronic pain sites and greater pain severity were associated with greater reductions in health related quality of life. These results support the proposition that number of chronic pain sites is a useful measure of population risk of poorer health outcomes.[33] Measurement, coding and population sociodemographic differences are likely contributors to the lower number of sites reported in this study compared with studies internationally.[33–35]

In the NZHS, chronic pain sites were recorded if a respondent had experienced pain every day for six months (allowing for varying intensity). In contrast, for example, the Ullenskar study recorded musculoskeletal pain sites experienced in the past seven days and the past 12 months.[33,35] In addition, chronic pain in joints was recorded only once in the NZHS even if multiple joints were affected. These were coded separately in the Ullenskar study and back pain had two codes (upper and lower back).

Joints, back and neck were the most frequently nominated sites in this study. Consistent with this analysis, an analysis of chronic pain site locations from an individual perspective showed that over half (57.6%) of those with chronic pain reported chronic pain in joints and just under half reported chronic pain in the neck or back (47.5%).[26]

While nearly half of those who reported chronic pain used some form of medical treatment (defined as medicines, pills, tablets, injections, or waiting for surgery) for their chronic pain, a third did not use any treatment.

Use of medical treatment did vary within the chronic pain population. People with greater severity of recent pain, women, and older age groups had much higher odds of using medical treatment for their chronic pain. A substantial minority of those experiencing severe recent pain did not use any form of treatment for their chronic pain.

The reasons for this pattern of treatment utilisation are uncertain. Individuals may have developed their own management approaches which do not include the use of health services or it might be that management is provided during health consultations for other reasons. Research in Australia showed that people reporting chronic pain were more likely to use health services and that higher use was associated with greater levels of pain related activity interference.[36] A planned analysis of overall health service use alongside the analysis of the treatment reported specifically for chronic pain should help clarify potential explanations.

These results show that chronic pain is a major health issue in New Zealand. Although people in all age groups are affected by chronic pain, the proportion of people affected by chronic pain will increase as the population ages in coming years. Recent New Zealand studies and commentary have highlighted the need for improvements in the policy and service delivery for chronic conditions. [37–39]

The recently released Australian National Pain Strategy highlighted the heavy burden of pain on the community, economy and health care services and called for improvements in its assessment and management.[40] With the recognition that chronic pain is a common chronic condition that meets the definition of a disease, it would be useful to examine the extent to which it is accorded priority for funding and services in New Zealand and the adequacy of those services in relation to population need.

Competing interests: None known

Author information: Clare Dominick,[1] Fiona Blyth,[2,3] Michael Nicholas[4]

[1]PhD Candidate, Pain Management and Research Institute, University of Sydney (based in Wellington, New Zealand)

[2]Head, Pain Epidemiology Unit, Pain Management and Research Institute, University of Sydney, Australia;

[3]School of Public Health, University of Sydney, Australia

[4]Associate Professor, Pain Management and Research Institute, University of Sydney, Australia

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Correspondence: Clare Dominick, PO Box 27-115, Wellington, New Zealand. Email: cdom1713@uni.sydney.edu.au

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