

Practice characteristics of New Zealand chiropractors: A 2019 survey.

Tanja Glucina, Hannah Gaskin, Marina Fox, and Kelly Holt

Abstract: Objective: To summarise the key findings of the 2019 Survey of the New Zealand Chiropractic Profession given to New Zealand chiropractors and compare them to the practice patterns seen in similar local and international studies.

Method: The 62-question survey was conducted online, and access was provided via an email or Facebook invitation. The survey was sent to all registered chiropractors in New Zealand and those on the database at the New Zealand College of Chiropractic (NZCC). The questions were divided into sections that included the chiropractic practitioner, chiropractic practice management, chiropractor beliefs and chiropractor clinical management.

Summary: 310 chiropractors responded to the survey. The results indicate that the typical chiropractor in New Zealand graduated from NZCC and found a job within six months of graduating and graduated over five years ago and is a sole practitioner with a thriving practice. They also suggest that the majority of chiropractors in New Zealand have a vertebral subluxation focus and use a range of techniques in their practice.

Indexing terms: Chiropractic, New Zealand, Survey, Practice characteristics.

Introduction

In 1978 the New Zealand government set up a Royal Commission of Inquiry into the chiropractic profession (New Zealand Government, 1979). The investigation which ran for nearly two years studied all aspects of the profession and included expert views from New Zealand's Medical, Physiotherapists, and Chiropractors Associations, the Department of Health and the New Zealand Consumer Council. The report's findings were favourable toward chiropractic and resulted in chiropractic becoming a registered health profession. (Inglis, Fraser, & Penfold, 1979) The commission report was so well-regarded internationally, as a thorough examination of the practice of chiropractic, that it has formed the basis for government regulation in several countries, including Canada.

... The belief of NZ chiropractors is that their profession is strongly placed to provide care for adults and children and that the primary purpose of the chiropractic exam is to detect vertebral subluxations..'



The commission's report recommended that an educational programme be established in New Zealand to train chiropractors locally which initiated the formation, in 1994, of the New Zealand College of Chiropractic (NZCC). The NZCC received accreditation from the New Zealand Qualifications Authority in 1997 and from the Council on Chiropractic Education Australasia (CCEA) in 2002. Since its inception, the NZCC has produced over 600 graduates who are eligible to practice worldwide. In 2019, New Zealand had 652-practicing chiropractors (New Zealand Chiropractic Board, 2019), serving a population of approximately 5 million in New Zealand. (New Zealand Government, 2020)

The New Zealand College of Chiropractic commissions regular surveys to monitor the needs of the profession, and to gather information to assist in programme development, which is conducted on a three yearly basis by the Stakeholders Advisory Committee (SAC). The first survey was undertaken in 2001 by the Industry Advisory Committee. The most recent survey was conducted in May 2019 and is the seventh survey overall. The purpose of this paper is to report on the key findings of practice patterns in the 2019 Survey of the NZ Chiropractic Profession and to compare the results to previous surveys both locally and internationally.

Methods

The 2019 survey of the NZ Chiropractic profession was developed from the 2016 (Holt, 2016) and previous SAC surveys with some additional questions. The survey was undertaken in May 2019 and conducted online.

Emails were sent to all registered NZ chiropractors from the NZ Chiropractic Board (of which there were 628 chiropractors with annual practicing certificates (APC) at the time) and NZCC databases, as well as an invitation to complete the survey on the NZCC Facebook page. These emails included information on the purpose of the survey, assured anonymity of the respondents and invited individuals to participate with instructions on how to complete the survey. The 62-item survey asked questions in either a Likert type scale or through entering the appropriate response that best fit their situation, was delivered by survey monkey and imported into an Excel spreadsheet, where descriptive statistics were then used to analyse the data. Types of questions included basic demographic information practice characteristics, techniques and modalities, referral relationships, clinical management administration and promotion, diagnostic imaging use, attitudes about NZCC and research. (Holt, 2019)

Results

The response rate was 40% of APC holders; of the 310 responses, 251 held current NZ APC with 59 respondents being based overseas or were non-practicing.

The chiropractic practitioner

Fifty percent of respondents were male, compared to 54% in 2016, with 1% percent (n=2) indicating that their gender was diverse. Ninety-two percent of respondents were currently practicing in contrast to conducting research or teaching. For those who were seeing less that ten patients a patient, 35% (n=6) work within the chiropractic profession such as in education or administration, with one respondent indicating they were not practicing due to being unable to find work, five being on maternity leave, and three respondents setting up practice/beginning a new job.

Table 1 shows the institution from which the chiropractors obtained their degree. The data presented is related to respondents that are NZ APC holders. Length of time since graduation was also investigated and is given in Table 2, investigation on time taken to be offered a chiropractic job opportunity (see Table 3) as well as information that described the practitioner's position in practice or practice environment in Table 4. Of interest, 44% of NZ chiropractors felt more chiropractors were needed in their local area.

Chiropractic Practice Management

Respondents were asked to indicate their perceived level of practice growth where 67% of respondents indicated their practice was growing with 4% indicating it was declining. This is in comparison to the 2016 SAC survey where 63% reported growth compared to 3% reporting a decline.

Questions pertaining to practice management were also included in the survey. Computer software management systems were indicated to be used to manage their appointments by 90% of chiropractors, whilst 46% use an online booking system. The percentage of respondents who use computer systems to manage their clinical information was found to be 63%. Twenty four percent of respondents s own an X-Ray machine of which 81% was found to be digital.

Questions relating to fees and visits showed that family visits were being offered by 56% of chiropractors, with family yearly plans also being available by 11% of respondents compared with 15% of respondents having individual yearly plans available. The average visit number was reported as 89 to a maximum of 300 visits per week. All of these results are similar to the 2016 survey, with one interesting exception where the breakdown of weekly patient visit numbers based on time in practice changed (see Table 5).

Chiropractor beliefs

The survey also asked three additional questions on professional identity that had not previously been asked before (see Table 7). These questions were derived from recent surveys of Australasian (de Luca, Gliedt, Fernandez, Kawchuk, & Swain, 2018) and North American (Gliedt et al., 2015) chiropractic students and these studies' responses are compared in Table 8.

Questions pertaining to the types of research chiropractors thought would best serve the profession were also asked (see Table 9). These were ranked from most important, score of 1, to least important, 5. The highest rank scores showed that research that investigated the effects of chiropractic care on nervous system function or health and wellness was the most important to serve the profession.

Chiropractor Clinical Management

The survey also questioned aspects of use on clinical examination and diagnostic equipment. The question related to whether they used these procedures 'at least sometimes' in their practice. To reduce burden time these questions were asked differently to previous years by answer options being either 'yes' or 'no' compared to an estimate of how often. The overall trend compared to the 2016 responses was that less analytical assessment was being used (see Table 6).

Similarly, questions on adjustive procedures that were used in practice also differed to the format of previous years where the response was also 'at least sometimes'. Techniques that were used by half or more of all chiropractors 'at least sometimes' in order are as follows: Diversified Technique, extremity adjusting, Activator® adjustor instrument, Gonstead Technique, Thompson Technique, Sacro Occipital Technique and cranial techniques (see Table 11). When asked to indicate what approach was used to adjust patients it was found that an integrative approach was used by almost three-quarters of chiropractors (see Table 12).

Non-adjustive procedures were also investigated whereby respondents were asked to indicate which they used 'at least sometimes' (see Table 13). This question was also asked differently than when compared to previous surveys.

Questions relating to X-Ray use were consistent with the 2016 survey. Of interest, for X-ray use, it was found that 46% of chiropractors used X-rays to rule out pathology and as a part of a technique system, whilst 32% used X-Ray to rule out pathology only.

Discussion

Sixty-nine percent of respondents graduated from NZCC with the increase from the previous survey being a continued trend as an increasing percentage of NZ APC holders graduated from NZCC. The response rate of the Survey of the NZ Chiropractic Profession was 40% exceeding that of similar international surveys of the chiropractic profession. For example in a European study that investigated practising chiropractors beliefs and practice in 2017, (Gíslason et al., 2019) the response rate was 17.2%. Whilst this number reflects multiple countries, a study in Australia on practice characteristics had a response rate of 43%. (Adams et al., 2019)

Limitations to this current study exist. There is potential of a responses bias in favour of graduates of NZCC, however this was somewhat mitigated by using multiple sources of invitations. Additionally, college graduates were not overrepresented, hence this is not considered to be a fatal flaw. (Holt, 2019)

Not surprisingly, computer software and online booking systems continue to grow; for example, the use of a computer program to enter clinical information rose by 17% in the current survey compared with the last. In the same vein, respondents who have their own digital X-ray equipment rose by 13%. Ninety percent of respondents use electronic booking systems with 63% used to enter clinical information which is more than a 2015 Australian study which indicated electronic records were used by 41.7% of their sample. (Adams et al., 2017)

In this 2019 Survey of the NZ Chiropractic Profession, 73% of NZ chiropractors either agreed or strongly agreed that the primary purpose of the chiropractic examination is to detect vertebral subluxations. This is in contrast to 55% of Australasian and 47% of North American students. The higher NZ figure may be a reflection on the vitalistic, vertebral subluxation based education of the NZ chiropractors who graduated from NZCC, (Fox, 2018); de Luca et al. (2018) found that chiropractic education may be a potential determinant of chiropractic professional identity.

In the Australasian and North American surveys, the majority of students indicated a preference on emphasis on the correction of vertebral subluxation whilst recognising the importance of evidence-based practice. de Luca et al. (2018) suggested that these concepts were mutually exclusive insofar that both concepts are on each end of the spectrum as unorthodox (VS) and orthodox (MSK practice) approaches. The very terms orthodox and unorthodox have been used in a number of studies. (Gíslason et al., 2019; McGregor, Puhl, Reinhart, Injeyan, & Soave, 2014; Puhl, Reinhart, Doan, McGregor, & Injeyan, 2014) That these views are polarised is not news.

Throughout the chiropractic literature the contrasting practice objectives of a biomedically focussed short-term treatment approach to musculoskeletal (MSK) care (Chapman-Smith, 2005; Nelson et al., 2005) are compared with a long-term vertebral subluxation wellness (Hawk, Rupert, Hyland, & Odhwani, 2005; Jolliot, 2006; Senzon, 2011) practice approach.

It has however been posed that a chiropractor may be able to hold more than one approach in various contexts (Glucina, Krägeloh, Farvid, & Holt, 2020), hold onto traditional subluxation practice while still recognising the importance of evidence based practice (Gliedt et al., 2015) and that chiropractors can hold more than one opinion of having both a vitalistic and evidence based practice approach to practice (Brosnan, 2017).

Conclusion

The typical NZ chiropractor is a graduate from the NZCC. The chiropractor was offered a job either before or within 6 months of graduation, has been graduated for over five years, is a sole practitioner and currently has a growing practice.

The belief of NZ chiropractors is that their profession is strongly placed to provide care for adults and children and that the primary purpose of the chiropractic exam is to detect vertebral subluxations. Chiropractors use an integrated approach to technique with the top 3 techniques used including Diversified, extremity and Activator® instrument adjusting. Corrective and therapeutic exercises are also employed as well as neurological and Xray testing amongst others.

Tanja Glucina BSC(Psych), BSc(Chiro), BHSc(Hons; first class), CertTT, PhD (Cand) New Zealand College of Chiropractic (NZCC)

> Hannah Gaskin B(Chiropr) NZCC

tania.Glucina@nzchiro.co.nz

Marina Fox BSc(Physiol), BSc(Chiro), CertTT, DICCP, M.Ed NZCC

Kelly Holt BSc(Physiol), BSc(Chiro), PGDipHSc, PhD NZCC

Cite: Glucina T, Gaskin H, Fox M, Holt K. Practice characteristics of New Zealand chiropractors: A 2019 survey. Asia-Pacific Chiropr J. 2021;1.3. URL apcj.net/glucina-et-al-demographics-new-zealand/

References

Adams, J., de Luca, K., Swain, M., Funabashi, M., Wong, A., Pagé, I., Peng, W. (2019). Prevalence and practice characteristics of urban and rural or remote Australian chiropractors: Analysis of a nationally representative sample of 1830 chiropractors. Australian Journal of Rural Health, 27(1), 34–41. https://doi.org/10.1111/ajr.12447.

Adams, J., Lauche, R., Peng, W., Steel, A., Moore, C., Amorin-Woods, L. G., & Sibbritt, D. (2017). A workforce survey of Australian chiropractic: The profile and practice features of a nationally representative sample of 2,005 chiropractors. BMC Complementary and Alternative Medicine, 17(1), 1–8. https://doi.org/10.1186/s12906-016-1542-x.

Brosnan, C. (2017). Alternative futures: Fields, boundaries, and divergent professionalisation strategies within the chiropractic profession. Social Science & Medicine, 190, 83–91.

Chapman-Smith, D. (2005). The spinal health care experts: The profession reaches agreement on identity. Chiropractic Report, 19(4), 1–8. de Luca, K. E., Gliedt, J. A., Fernandez, M., Kawchuk, G., & Swain, M. S. (2018). The identity, role, setting, and future of chiropractic practice: A survey of Australian and New Zealand chiropractic students. Journal of Chiropractic Education, 32(2), JCE-17-24.

Fox, M. (2018). Vitalism in a chiropractic programme-A New Zealand case study. Auckland University of Technology.

Gíslason, H. F., Salminen, J. K., Sandhaugen, L., Storbråten, A. S., Versloot, R., Roug, I., & Newell, D. (2019). The shape of chiropractic in Europe: A cross sectional survey of chiropractor's beliefs and practice. Chiropractic and Manual Therapies, 27(1), 1–9. https://doi.org/10.1186/s12998-019-0237-z.

Gliedt, J. A., Hawk, C., Anderson, M., Ahmad, K., Bunn, D., Cambron, J., Zhang, L. (2015). Chiropractic identity, role and future: A survey of North American chiropractic students. Chiropractic and Manual Therapies, 23(1), 1–9. https://doi.org/10.1186/s12998-014-0048-1

Glucina, T. T., Krägeloh, C. U., Farvid, P., & Holt, K. (2020). Moving towards a contemporary chiropractic professional identity. Complementary Therapies in Clinical Practice, 39, 101105. https://doi.org/10.1016/J.CTCP.2020.101105.

Hawk, C., Rupert, R. L., Hyland, J. K., & Odhwani, A. (2005). Implementation of a course on wellness concepts into a chiropractic college curriculum. Journal Of Manipulative And Physiological Therapeutics, 28(6), 423–428. https://doi.org/10.1016/j.jmpt.2005.06.015.

Holt, K. (2016). Stakeholders Advisory Committee survey of the New Zealand chiropractic profession: Analysis of survey data. Auckland, New Zealand.

Holt, K. (2019). 2019 Survey of the New Zealand chiropractic profession: Analysis of survey data. Auckland, New Zealand.

Inglis, B. D., Fraser, B., & Penfold, B. R. (1979). Commission of Inquiry into Chiropractic - Chiropractic in New Zealand. Wellington.

Jolliot, C. (2006). Vital force: An everlasting notion for the original stance of chiropractic. Chiropractic Journal of Australia, 36(3), 97–104.

McGregor, M., Puhl, A. A., Reinhart, C., Injeyan, H. S., & Soave, D. (2014). Differentiating intraprofessional attitudes toward paradigms in health care delivery among chiropractic factions: Results from a randomly sampled survey. BMC Complementary and Alternative Medicine, 14, 1–8. https://doi.org/10.1186/1472-6882-14-51.

Nelson, C. F., Lawrence, D. J., Triano, J. J., Bronfort, G., Perle, S. M., Metz, R. D., ... LaBrot, T. (2005). Chiropractic as spine care: A model for the profession. Chiropractic & Osteopathy, 13(7), 1–17.

New Zealand Chiropractic Board. (2019). Annual Report. Retrieved from https://www.chiropracticboard.org.nz/Portals/12/Annual report 2019.pdf?ver=2020-02-05-112536-623.

New Zealand Government. (2020). New Zealand's population passes 5 million. Retrieved from 2020 website: https://www.stats.govt.nz/news/new-zealands-population-passes-5-million#:~:text=New Zealand's resident population provisionally, reaching 4 million in 2003.%22.

Puhl, A. A., Reinhart, C. J., Doan, J. B., McGregor, M., & Injeyan, H. S. (2014). Relationship between chiropractic teaching institutions and practice characteristics among Canadian doctors of chiropractic: A random sample survey. Journal of Manipulative and Physiological Therapeutics, 37(9), 709–718. https://doi.org/10.1016/j.jmpt.2014.09.005.

Senzon, S. A. (2011). Constructing a philosophy of chiropractic: Evolving worldviews and postmodern core. Journal of Chiropractic Humanities, 18(1), 39–63. https://doi.org/10.1016/j.echu.2011.10.001.

Tables

Institution	2016 % of Respondents	2019 % of Respondents
NZCC	66%	69%
PIT/RMIT	10%	8%
Palmer (Davenport)	5%	5%
AECC	2%	2%
Sherman	4%	2%
Lincoln/National	1%	0.5%
CMCC	2%	2%
Logan	1%	0.5%
Macquarie	2%	2%
Life University	2%	0.5%
Life West	-	0.5%
WSCC	1%	1%
Cleveland (Kansas)	1%	-
LACC/SCUHS	1%	1%
New York	-	0.5%
Parker College	1%	1%
Northwestern	1%	0.5%
Barcelona College of Chiropractic	-	0.5%
Institut Franco-Europeen de Chiropratique	1%	0.5%
Murdoch	-	0.5%
RMIT (Japan)	-	1%
University of South Wales	-	1%
Palmer West	-	1%
University of Surrey	-	0.5%

Table 2: Length of time since graduation				
Time 2016 Survey 2019 S				
Fewer than two years	9%	7%		
2-4 years	24%	16%		
5-15 years	39%	39%		
16-25 years	16%	22%		
More than 25 years	12%	16%		

Table 3: Work opportunity since graduation				
Q: How long did it take for the first opportunity to work in the CHIROPRACTIC INDUSTRY from the time you completed your studies	2016 Survey	2019 Survey		
An opportunity was available to me before I completed my studies	64%	66%		
An opportunity became available within one to six months of completing my studies	32%	30%		
An opportunity became available within seven to twelve months of completing my studies	3%	3%		
An opportunity became available more than twelve months after completing my studies	0%	1%		
I have not worked in the CHIROPRACTIC INDUSTRY after completing my studies	1%	0%		

Table 4: Position of chiropractor within their primary practice			
Position in Practice	2016 Survey	2019 Survey	
Sole Practitioner	30%	39%	
Principal with associate/s	18%	19%	
Partner	13%	8%	
Associate	31%	30%	
Sharing facilities	4%	4%	
Locum	1%	0.5%	
Other	2%	1%	

Table 5: Breakdown of weekly patient visit numbers based on time in practice					ractice
	Patient visits per week	Less than 2 years in practice	2-5 years in practice	6-10 years in practice	Longer than 10 years in practice
2019 (NZ APC holder)	Average	74	69	80	105
	Median	80	60	60	80
	Maximum	300	160	180	300
2016 (NZ Based Chiropractor)	Average	59	56	80	120
	Median	40	40	80	120
	Maximum	240	140	200	280

Table 6: Assessment/ Analytical/ diagnostic equipment us	ed 'at least som	etimes'
	2016 Survey	2019* Survey
Thermography equipment	23%	19%
Surface EMG	17%	14%
Blood pressure cuff	68%	52%
Stethoscope	54%	34%
Otoscope	33%	20%
Ophthalmoscope	36%	20%
Reflex hammer	85%	75%
Weight scales	35%	32%
Thermometer	34%	15%
Plumb line	21%	16%
Posture analyser (e.g. SAM)	34%	31%
Inclinometer	21%	14%
Pressure algometer	4%	2%
Heart Rate Variability monitor	11%	16%
Dynamometer	17%	9%
Pinwheel or other device to test paid sensation	45%	45%
Tuning fork	58%	47%
Pulse Oximeter	10%	10%
Foot scanner	11%	6%
X-ray equipment (Adults – either in your practice or by referral)#	NA	53%
X-ray equipment (Children 0-15yrs – either in your practice or by referral)#	NA	25%
Visual Analogue Scale	54%	46%
Oswestry	17%	11%
Roland Morris	16%	6%
Neck Disability Index	14%	9%
Quality of Life Questionnaire	29%	14%

[#] Added in 2019 survey/ *Question modified in 2019

Table 7: Chi	ropractic id	entity and p	oractice		
Statement	Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly agree
The primary purpose of the chiropractic examination is to detect vertebral subluxations	9%	7%	11%	34%	39%
The chiropractic profession is strongly placed to provide care to infants and young children	5%	5%	13%	31%	47%
Contemporary and evolving scientific evidence is more important than traditional chiropractic principles	2%	14%	39%	30%	15%

Table 8: Comparison	between chiroprac	ctic identity and practi	ice
Statement	2019 SAC survey 'agree or strongly agree'	Australasian student survey 'agree or strongly agree'	North American student survey 'agree or strongly agree'
The primary purpose of the chiropractic examination is to detect vertebral subluxations	73%	55%	47%
The chiropractic profession is strongly placed to provide care to infants and young children	88%	68%	NA
Contemporary and evolving scientific evidence is more important than traditional chiropractic principles	45%	55%	55%

Table 9: Importance of types of research	
Statement	2019 Rank Score
Research that investigates the effects of chiropractic care on nervous system function and brain-body communication (i.e. how an adjustment works)	4.10
Research that investigates the effects of chiropractic care on health and wellness (i.e. clinical research that investigates whether chiropractic care improves overall health, wellbeing, and quality of life)	3.78
Research that investigates how reliable and valid subluxation indicators are (i.e. can we reliably locate subluxations and once located does specificity matter when adjusting them)	2.18
Research that investigates how effective chiropractic care is at helping people with conditions/ pain (e.g. musculoskeletal pain conditions, stroke neurodegenerative conditions, neurodevelopmental disorders, injury prevention)	2.73
Research that investigates the effects of chiropractic care on special populations (e.g. pregnant women, babies, kids, athletes, older adults etc.)	2.41

Table 10: Assessment/ Analytical/ diagnostic PROCEDURES used 'at least sometimes' 2019* Survey 2016 Survey Motion palpation 99% 97% Static palpation 100% 100% 43% Vertebral artery tests 82% Vital signs 85% 49% 99% 93% Orthopaedic tests Muscle tests – (myotomes) 97% 86% Muscle tests – (AK and other technique protocols) 79% 51% Muscle stretch reflexes 94% 69% Dermatomes 90% 65% 93% 70% Cranial nerve tests Cardiopulmonary examination 60% 14% Abdominal examination 24% 66% Gait analysis 91% 70% **Laboratory Examinations** 45% 14%

^{*}Question modified in 2019

Table 11: Adjustive Procedures used 'at least sometimes' in practice.			
	2016 Survey	2019* Survey	
Activator Methods Chiropractic Technique (AMCT)	53%	24%	
Activator Adjusting Instrument (Without following the AMCT analysis protocol)	90%	82%	
Other adjusting instrument	34%	15%	
Applied Kinesiology (AK)	46%	27%	
Bio Energetic Synchronisation Technique (BEST)	8%	5%	
Chiropractic Biophysics Technique (CBP)	9%	7%	
Cox Flexion Distraction Technique	18%	8%	
Cranial Adjusting	73%	53%	
Diversified Technique (DT)	98%	95%	
Extremity adjusting	96%	81%	
Gonstead Technique	73%	56%	
Logan Basic	28%	15%	
Meric	10%	0%	
Neuro Emotional Technique (NET)	30%	13%	
Network Spinal Analysis	21%	11%	
NIMMO/ Receptor tonus	19%	8%	
Palmer upper cervical/ HIO	43%	25%	
Pierce-Stillwagon	4%	1%	
Sacro Occipital Technique (SOT)	64%	52%	
Thompson Technique	81%	63%	
Torque Release Technique (TRT)	16%	8%	

^{*}Question modified in 2019

Statement 2019 Survey

I primarily use a single 'name technique' in my practice (e.g., Gonstead/ Activator/Thompson)

I select from a number of 'name techniques' and use the one most suited to each patient

I use an integrative/combination of approaches from different 'name techniques' that are best suited to each patient

I use a technique approach that I have developed myself

5%

Table 13: Non-adjustive procedures used in practice 'a	nt least sometimes'	
Procedure	2016 Survey	2019 Survey*
Acupuncture/ Meridian Therapy	18%	10%
Bracing with lumbar support, cervical collar, etc.	26%	14%
Heel lifts or foot orthotics	34%	17%
Corrective/ Therapeutic exercises	80%	60%
Taping/ strapping	46%	35%
Ice pack/ Cryotherapy (in clinic)	32%	13%
Ice pack/ Cryotherapy (home use)	69%	48%
Heat pack/ Moist heat (in clinic)	18%	10%
Heat pack/ Moist heat (home use)	63%	46%
Massage therapy (by chiropractor)	41%	27%
Heat pack/ Moist heat (referral)	82%	65%

^{*}Question modified in 2019