# ARE SWISS CHIROPRACTORS DIFFERENT THAN OTHER CHIROPRACTORS? RESULTS OF THE JOB ANALYSIS SURVEY 2009

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#### Abstract

**Objective:** With the start of a new chiropractic program in the faculty of medicine, University of Zürich, an in-depth look at chiropractic practice in Switzerland was needed to help direct the undergraduate and postgraduate education. The purposes of this study were (1) to identify specific characteristics of chiropractic practice in Switzerland to ensure that relevant key competencies particular to practice in this country are covered in the undergraduate and postgraduate chiropractic programs and (2) to compare chiropractic practice in Switzerland to other countries who have completed similar surveys.

**Methods:** Using the National Board of Chiropractic Examiners (United States) job analysis survey as a template and adapting questions from the General Chiropractic Council United Kingdom survey, a Swiss questionnaire was created and tested for face and content validity before being placed online for completion by the 260 members of the Swiss Association for Chiropractors. Participation was voluntary and anonymous. Data were entered into an Excel spreadsheet, and descriptive statistics were calculated.

**Results:** The response rate was 70%. Similarities between Swiss chiropractors and their international counterparts were found in the most common conditions treated, the common etiologies of these conditions, the most common age groups seen, and the most common treatment methods used. Differences were found in the high proportion of patients referred directly to chiropractors from varying medical specialists in Switzerland, the fact that the most common category of patient to be seen by chiropractors in Switzerland is the acute followed by the subacute patient, the much higher requirement for continuing education hours in Switzerland, and the reduced use of diagnostic imaging compared with practitioners from the United States.

**Conclusions:** Chiropractic practice in Switzerland is a government-recognized medical profession with significant interprofessional referrals resulting in earlier chiropractic treatment for many patients. However, Swiss chiropractic practitioners still retain their professional identity and focus of practice. (J Manipulative Physiol Ther 2010;33:519-535) **Key Indexing Terms:** *Chiropractic; Practice; Patients; Questionnaire* 

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ob analysis surveys of chiropractic practice have been done in the United Kingdom (UK), the United States (US), and a few other countries,<sup>1-3</sup> but never in Switzerland before this study. Switzerland is in a very unique position within the chiropractic profession worldwide, being the only country where chiropractic is 1 of the 5 government-recognized medical professions (medicine, dentistry, veterinary medicine, pharmacology, and chiropractic). Since 2008, Switzerland has the first chiropractic program that is part of a faculty of medicine.<sup>4</sup> All chiropractic students are considered medical students and are required to pass the entrance examination for medicine and obtain their Bachelor of Medicine degree by completing all core medical classes in addition to their chiropractic specialty courses before entering the Masters of Chiropractic Medicine program. Doctors of chiropractic are reimbursed under the national sickness (health) and accident insurance programs, the same as other members of the

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medical profession. Everyone living in Switzerland is required by law to have this sickness and accident insurance. Thus, the chiropractic profession in Switzerland is truly integrated with medicine.<sup>5-9</sup>

The history of the chiropractic profession in Switzerland began more than 80 years ago. The first chiropractor, a woman, started her practice in the 1920s.<sup>4</sup> The profession recognized early on the necessity for postgraduate and continuing education, implementing a mandatory, wellstructured, 2-year postgraduate "assistantship" program in 1975. Rigorous interdisciplinary Cantonal examinations for doctors of chiropractic however started well before that date. Annual continuing education courses were started in 1960,<sup>4</sup> and Swiss chiropractic practitioners are required to obtain at least 80 hours of continuing education per year. The 2-year postgraduate assistantship program, coordinated by the Swiss Academy for Chiropractic, is recognized by the Federal government and currently undergoing an accreditation process under the same requirements as any postgraduate specialty in medicine.<sup>10</sup> Furthermore, until 2007, all students entering an undergraduate chiropractic program abroad (US, Canada, UK, France, etc) must have completed 1 year of medicine before entering their undergraduate training. With the start of the University of Zurich chiropractic program in 2008, the law specifies 60 European Credit Transfer System credits, equivalent to 1 year of full-time study, from a university program leading to a degree in a medical profession. This long history of high standards of postgraduate and continuing education required of Swiss doctors of chiropractic most likely helped the profession achieve its goal of recognition as 1 of the 5 federally regulated medical professions and integrating chiropractic education into the faculty of medicine at the University of Zürich in 2008.

With the start of a new university-based undergraduate chiropractic program and the impending government accreditation process of the 2-year postgraduate program, a detailed investigation into chiropractic practice in Switzerland was needed. The data from job analysis surveys help to guide the undergraduate, postgraduate, and continuing educational chiropractic curricula as well as to inform insurance companies and government agencies about chiropractic practice. Therefore, the purposes of this study were to (1) identify specific characteristics of chiropractic practice in Switzerland to ensure that relevant key competencies particular to practice in this country are covered in the undergraduate and postgraduate chiropractic programs and (2) to compare chiropractic practice in Switzerland to other countries who have completed similar surveys.

# Methods

The Swiss job analysis survey instrument was based upon the Unites States National Board of Chiropractic Examiners job analysis survey as the basic template, once written permission to do so was obtained.<sup>1</sup> Several questions from the National Board of Chiropractic Examiners survey were excluded, however, as not being relevant to chiropractic practice in Switzerland, particularly questions related to insurance issues. Questions from the UK General Chiropractic Council job analysis survey were also adapted,<sup>2</sup> as they provided additional relevant questions from a European perspective for the Swiss survey. Finally, topics of particular relevance to the legal practice of chiropractic in Switzerland, such as prescribing pain medications, were added to the survey instrument. The final product, written in English only, was sent to several doctors of chiropractic in Switzerland for evaluation of face and content validity with necessary amendments made before dissemination (Appendix 1).

The completed survey and study protocol were approved by the ethics review committee at Balgrist University hospital in Zürich and the ethics review board of the Canton of Zürich. The approved survey was then sent to an independent, online survey expert who had no direct links with the chiropractic profession. This independent expert not only placed the questionnaire online (www.surveymonkey.com), but accepted all returned and completed questionnaires. All 260 members of the Swiss Association of Chiropractors (>98% of practicing chiropractors) as well as the executive secretary were informed of the study via e-mail with a link to the job analysis survey instrument included. The participants simply had to click on the link to access and complete the survey, clicking the "submit" word when finished. Two additional "reminder" e-mails were sent by the survey expert to those doctors of chiropractic not having returned the survey approximately 1 month apart. The time frame that this survey was delivered and collected was July 2009 through the end of September 2009.

The independent survey expert placed the returned questionnaire data into Excel spreadsheets with each participant identified only by a number to protect his or her anonymity. These Excel sheets were then submitted to one of the researchers for data analysis. Thus, the researchers had no knowledge of the identity of any responder. This same independent survey expert also submitted the list of names of all chiropractic practitioners completing the survey to the executive secretary of the Swiss Association of Chiropractors so that 5 continuing education (CE) credits per person could be awarded. The executive secretary had no access to the information from the returned questionnaires or Excel sheets. Thus, there was no link between the names of respondents submitted for CE credit and the data. Participating chiropractors were informed that all answers were anonymous and that participation was voluntary.

Statistical analysis consisted of descriptive statistics (proportions) only, identical to the job analysis surveys of other countries.

#### **Table 1.** Length of time in practice

Years	Percentage of chiropractic practitioners
2-4	19%
5-15	37%
16-25	26%
>25	18%

**Table 2.** Quantity of practice time per week

Hours	Percentage of chiropractic practitioners
<10	3%
11-20	0
21-30	16%
31-40	38%
41-50	28%
51-60	12%
>60	3%

**Table 3.** Types of continuing education activities participated in during the past year

Activity	Percentage participating
Attending conferences/seminars	99%
Reading journals	90%
Quality Circle participation	72%
Attending hospital CE courses	22%
Doing online CE courses	16%
Attending diplomate courses	11%
Other (teaching on postgraduate	3%
program, etc)	

# Results

#### **Demographic Information**

The response rate was 70%, with 183 of 260 active chiropractors submitting the survey. Fifty-three of the respondents were female (29%), and 130 were male (71%). The most common period for doctors of chiropractic to have been in practice (excluding the 2-year assistantship) was between 5 and 15 years followed by 16 to 25 years (Table 1). Most practitioners work between 31 and 50 hours per week (Table 2).

#### Undergraduate and Continuing Education

The term *postgraduate* education in Switzerland is used specifically for the mandatory 2-year postgraduate program (similar to a residency program) or other degree-awarding courses and is not included here. Therefore, all other educational activities occurring after graduation from a recognized chiropractic program, including diplomate courses, fall under the category of "Continuing Education." The most popular sources of obtaining CE credits were attending conferences or seminars, followed by reading

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<b>Table 4.</b> Hours of continuing e	education	obtained	this	past	vear
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Hours obtained	Percentage of chiropractic practitioners
None	0
1-10	1%
11-20	1.6%
21-30	1.6%
31-40	7%
41-50	9%
51-60	8%
61-70	3%
71-80	11.4%
81-90	26%
91-100	10.4%
>100	20%

**Table 5.** Chiropractic college of graduation

College	Percentage of chiropractic practitioners
conege	emophane practices
Canadian Memorial	23%
Western States	16.4%
Palmer	12%
Southern California (formerly Los Angeles)	11.5%
National	11.5%
Palmer West	11.5%
Northwestern	7.7%
New York	2%
Logan	1.6%
Cleveland KC	1%
Anglo-European	1%
Texas	0
University of Quebec, 3 Rivers	0
Welsh Institute	0
Institut Franco-Européen de	0
Chiropratique (Paris)	
University of Southern Denmark	0

relevant journals and participating in their local Quality Circles. The least common source of CE credit was attending US diplomate courses (Table 3). Sixty-eight percent of chiropractic practitioners report obtaining more than 70 hours of CE credits this past year, with 20% reporting more than 100 hours (Table 4). Graduates of the Canadian Memorial Chiropractic College and Western States Chiropractic College were most represented in this survey (Table 5).

#### **Numbers of Patients Treated**

The average number of patients treated per week by Swiss chiropractors varies, with 30% treating between 100 and 149 patients per week, 31% treating less than 100 patients per week, and 39% treating 150 or more patients per week (Table 6). The average number of new patients per week also varies, but the most common figure was between 4 and 6 patients (Table 6). However, 59% of chiropractors see on average 7 or more new patients each week, with 3% seeing more than 20. Eighty-two percent of doctors of chiropractic stated that they see more female patients than

No. of total pts	Percentage of chiros	No. of new pts	Percentage of chiros
<50	5%	0	1%
50-99	26%	1-3	9%
100-149	30%	4-6	30%
150-199	17%	7-9	27%
200-249	13%	10-12	19%
250-300	7%	13-15	7%
>300	2%	16-20	3%
		>20	3%

Table 6. Average number of total and new patients seen per week

**Table 7.** Age groups of patients seen and percentage of patients per group

Age group (y)	None	1%-25%	26%-50%	51%-75%	76%-100%
≤5	22%	77%	<1%	0	0
6-17	8%	89%	2%	0	0
18-30	8%	55%	38%	0	0
31-50	6%	10%	64%	19%	0
51-64	8%	36%	52%	5%	0
≥65	8%	85%	5%	1%	0

**Table 8.** How soon can a new patient get an appointment?

Urgent pt	Percentage of chiropractic practitioners	Nonurgent pt	Percentage of chiropractic practitioners
Same day	61%	Same day	13%
1-2 d	30%	1-2 d	39%
3-4 d	3%	3-4 d	29%
5-7 d	3%	5-7 d	9%
>1  wk	3%	>1 wk	10%

male patients, with males making up between 26% and 50% of their patients; and thus, females are between 51% and 75% of the total.

# **Patient Ages**

Table 7 outlines the percentage of patients that present to chiropractors within specific age groups. The most common patients to present are between the ages of 31 and 50 years followed by the 51- to 64-year-old group. However, 78% of chiropractic practitioners report treating at least some children younger than 5 years, with 91% of practitioners treating children between the ages of 6 and 17 years.

# Availability

A new patient with an urgent complaint is able to obtain an appointment on the same day with 61% of the chiropractors, whereas 30% are able to see the urgent patient within 1 to 2 days (Table 8). A new patient with a nonurgent complaint can only get a same-day appointment with 13% of the chiropractors, but can be seen within 4 days by 81% of the practitioners (Table 8).

New pt	Percentage of chiropractic practitioners	Subsequent visit	Percentage of chiropractic practitioners
0-5 min	0	0-5 min	1%
6-10 min	0	6-10 min	29%
11-15 min	3%	11-15 min	58%
16-30 min	23%	16-30 min	11%
31-45 min	60%	21-45 min	1%
46-60 min	13%	>45 min	0
61-75 min	1%		
>75 min	0		

**Table 9.** How much time is spent with a patient?

**Table 10.** Symptom duration of patients seen during the past month

	None	1%-25%	26%-50%	51%-75%	76%-100%
Symptom free	41%	58%	0.6%	0	0.6%
0-4 wk	0	30%	37%	29%	4%
4-8 wk	0.6%	55%	37%	6%	0.6%
8-12 wk	1%	74%	21%	1%	2%
>12 wk	3%	78%	13%	4%	1%

 Table II. Interval at which patients being treated are reassessed

Time interval	Percentage of chiropractic practitioners
1 visit	18%
2-3 visits	19%
4-5 visits	26%
6-7 visits	23%
8-9 visits	9%
$\geq 10$ visits	4%
I do not reassess	1%

# Length of Appointments

The most common time frame allocated for a new patient visit is between 31 and 45 minutes, with 60% of doctors of chiropractic reporting this figure (Table 9). Twenty-three percent spend between 16 and 30 minutes with a new patient, whereas 13% spend 46 to 60 minutes. Subsequent patient visits usually last between 11 and 15 minutes for 58% of practitioners, with 29% reporting visits of 6 to 10 minutes and another 12% spending more than 16 minutes for a subsequent visit (Table 9).

#### Symptom Duration

Acute patients (0-4 weeks of symptoms) are the most common to present to Swiss chiropractors, followed by patients suffering symptoms for 4 to 8 weeks (Table 10). Chronic patients (symptoms >12 weeks) generally make up less than one fourth of the patients, and treating patients who are symptom free is quite uncommon in Swiss chiropractic practice. The reassessment of a patient occurs within the first 4 to 5 visits by 63% of chiropractors, with 18% reassessing after 1 treatment (Table 11).

			-		
Source	None	1%-25%	26%-50%	51%-75%	76%-100%
ASC website	72%	25%	0	0	0
Patient contact with ASC	79%	14%	6%	0	0
Your own website	51%	41%	5%	2%	0
Sign/location of your practice	23%	70%	6%	0	0
Advertisement in newspapers	85%	7%	0.6%	3%	0.6%
Word of mouth/patient referrals	0	9%	36%	36%	20%
Chiropractic patients association	65%	32%	0	0	0
Referral from medical doctor	3%	47%	43%	10%	0
Referral from other chiropractor	26%	72%	0	0	0
Referral from other health care provider	12%	81%%	6%	0.6%	0
Other	23%	27%	0	0	0.6%
Do not know	23%	14%	0.6%	0	0

**Table 12.** The source of new patients and the approximate percentage received from each source

ASC, Association of Swiss Chiropractors.

Table 13. Percentage of patients presenting with the following chief complaints during the past year

Complaint	None	1%-10%	11%-20%	21%-30%	31%-40%	41%-50%	51%-60%	61%-70%	71%-80%	81%-90%
Headache or facial pain without neck pain	4%	86%	9%	1%	0	0	0	0	0	0
Headache with neck pain	0	30%	50%	16%	2%	3%	0	0	0	0
Neck pain/injury without arm pain or headache	0.7%	33%	45%	18%	1.4%	1.4%	0	0.7%	0	0
Neck pain/injury with arm pain	0.7%	40%	50%	7%	1%	0.7%	0	0	0	0
Midback pain/injury	0	51%	42%	6%	1.3%	0	0	0	0	0
Low back, pelvis pain/injury without leg pain	0	7%	31%	38%	15%	5%	1.4%	0.7%	0.7%	1.4%
Low back, pelvis pain/injury with leg pain	0	17%	44%	27%	9%	2%	1.4%	0.7%	0	0
Upper extremity pain/injury	3%	71%	17%	7%	2%	0	0	0	0	0
Lower extremity pain/injury	3%	75%	15%	5%	1.4%	0	0	0	0	0
Chest pain/injury	5%	83%	9%	1.4%	1.4%	0	0	0	0	0
Abdominal pain/injury	26%	71%	2%	0	0.7%	0	0	0	0	0
Wellness/preventive care	27%	63%	7%	3%	0.7%	0	0	0	0	0
Other nonmusculoskeletal condition	29%	60%	9%	0.7%	0.7%	0.7%	0	0	0	0

# Patient Acquisition and Referrals

The most common source of new patients for Swiss chiropractors is referral from other patients, with 56% of clinicians obtaining more than half of their patients from this source (Table 12). The second most common source of patients comes from direct referrals from other medical doctors. The least common source of patients is advertising in newspapers or similar publications, with 85% of practitioners stating that they do not obtain any patients in this way.

# **Complaints Presenting**

Table 13 lists the percentage of patients presenting to a chiropractor with various chief complaints. The most common chief complaint to present is "low back/pelvic pain or injury without leg pain" followed by the same complaint but with leg pain. Between 21% and 30% of the patients in 65% of chiropractic practices present with these symptoms. Another 37% of chiropractors report that more than 30% of the patients in their practices present because of low back or

pelvic pain with or without leg pain. The next most common chief complaint to present consists of neck pain with or without arm pain and with or without headache. Upper and lower extremity conditions present with equal frequency.

# **Causes of Chief Complaints**

The various etiologies of the chief complaints are listed in Table 14. "Activities of daily living" was reported to be the most common source of a patient's chief complaint followed by "overuse or repetitive stress." A work injury (but not overuse at work) was the third most common cause of a patient seeking chiropractic care. Several comments were listed in the category "other" as an etiology for the chief complaint. These included obesity, health care provider induced, giving birth, babies and children born with torticollis or colic, multifactorial, and unknown.

#### Practice Environment and Work Activities

Not surprisingly, the vast majority of a practitioner's time is devoted to direct patient care (Table 15), with 81%

Etiology	None	1%-10%	11%-20%	21%-30%	31%-40%	41%-50%	51%-60%	61%-70%	71%-80%	81%-90%
Activities of daily living	1%	19%	27%	31%	9%	8%	3%	0	0	0
Motor vehicle accident	1%	85%	13%	0.7%	0	0	0	0	0	0
Overuse/repetitive stress	0	17%	44%	28%	3%	3%	1%	0.7%	0.7%	0.7%
Sports/exercise/recreation	0	30%	52%	15%	0.7%	2%	0	0	0	0
Work (not repetitive stress)	0	32%	41%	20%	5%	1%	0.7%	0	0	0
Acute illness/pathology	24%	68%	5%	1%	0.7%	0	0	0	0	0
(eg, colds, ear infections)										
Chronic illness, pathology	24%	59%	13%	2%	1%	0	0	0	0	0
(eg, cardiovascular, diabetes)										
Emotional stressors	7%	45%	34%	12%	4%	1%	0	0.7%	0	0
Environmental stressors,	18%	60%	16%	4%	2%	0.7%	0	0	0	0
including dietary										
Other (specify)	51%	39%	6%	0	0	2%	0	2%	0	2%

 Table 14. Primary etiologies for the chief complaint during the past year (% or patients)

Table 15. The approximate percentage of time spent on each of the following functions during a typical week

Function	None	1%-25%	26%-50%	51%-75%	76%-100%
Direct patient care	0	0	6%	46%	35%
Documentation of care Business management	1% 11%	80% 71%	4% 4%	0	0.5%
Patient education	7%	71%	7%	2%	0

reporting that they spend more than half of their time with patients. Documentation of care, patient education, and business management take up equal amounts of the practitioner's remaining work time.

Forty-eight percent of doctors of chiropractic work alone in practice (Table 16), 40% work with other chiropractic practitioners, 10% work in a multidisciplinary setting, and 1% of practitioners are on full-time hospital staff. The vast majority (91%) work in one practice location (Table 16).

Fifty-five percent of doctors of chiropractic report that they also deliver care outside of their main office setting, such as in a patient's home; and 6% of doctors of chiropractic have staff privileges at a hospital (Table 16).

The majority of doctors of chiropractic (77%) do not primarily delegate the taking of a patient's case history to a nonchiropractic member of staff (Table 17), nor do they delegate the taking of radiographs to a nonchiropractic staff member (Table 17). However, 65% of doctors of chiropractic who do take radiographs in their own practices will allow a nonchiropractic member of staff to develop the radiographs. Twenty-nine percent of practitioners reported that they do not take radiographs in their own offices (Table 17). The results for the persons administering adjunctive therapies, such as ultrasound and other physical therapy modalities, are approximately split, with 49% of practitioners allowing nonchiropractors to provide these services and 51% doing these activities themselves (Table 17).

# Chiropractic Techniques and Therapies Used

By far, the most common treatment modality used was diversified adjusting technique (Table 18), with 55% of

**Table 16.** Type of practice environment in which the chiropractor works

Environment	Percentage of chiropractic practitioners
Individual/sole chiropractor	48%
One of 2 or more chiropractors	40%
Junior associate or examining doctor	1%
Practice in multidisciplinary office	10%
Other (hospital staff, etc)	1%
>1 practice location	9%
Only 1 practice location	91%
Deliver chiropractic care outside an	55%
office setting (ie, a patient's home)	
Have staff privileges at a hospital	6%

doctors of chiropractic applying it to between 76% and 100% of their patients and 25% of doctors of chiropractic using this for 51% to 75% of their patients. The other commonly used therapies, in order of application, are as follows: (2) advice on activities of daily living, (3) trigger point therapy, (4) therapeutic exercises, (5) mobilization techniques, (6) applying physical therapy modalities, and (7) drop technique.

The least commonly used therapies included taping/ strapping, trigger point injections, acupuncture, and network technique. Several techniques were indicated in the "Other" category of therapy. These included yoga/Rolfing (1 practitioner), art therapy (1 practitioner), body awareness therapy (1 practitioner), cranial work (1 practitioner), psychological support (1 practitioner), osteopathic techniques (1 practitioner), bio-energetic synchronization technique (BEST) (2 practitioners), personal development (1 practitioner), and manipulation/mobilization under anesthesia (1 practitioner).

Table	17.	Specific	chiroprac	ctic pra	ictice	tasks/	activities
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Specific chiropractic tasks	Percentage yes	Percentage no
Primarily delegate case history to nonchiropractic member of staff	23%	77%
Primarily delegate taking radiographs to nonchiropractic member of staff	16%	55% (29% do not take radiographs in own office)
Primarily delegate developing radiographs to nonchiropractic member of staff	46%	25% (29% do not take radiographs in own office)
Primarily delegate administration of adjunctive therapies to nonchiropractic	49%	51%
member of staff		

<b>Table 10.</b> Fercentage of chiropractors using the various types of treatme	Table 18	8. Percentage	of chiropractors	using the	various	types of	<sup>c</sup> treatment
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	Used on	Used on	Used on	Used on
Technique/treatment	0%-25% of patients	26%-50% of patients	51%-75% of patients	76%-100% of patients
Diversified	13%	7%	25%	55%
Gonstead	61%	5%	4%	8%
Drop technique	46%	20%	11%	10%
Activator	68%	14%	3%	1%
Applied kinesiology	62%	9%	5%	3%
Network	59%	3%	0.7%	4%
Mobilization	39%	36%	15%	7%
Active muscle release	47%	19%	9%	4%
Sacrooccipital technique	59%	14%	3%	1.3%
PT modalities	35%	28%	24%	5%
Massage	49%	15%	10%	9%
Trigger point therapy	33%	26%	27%	12%
Trigger point injections	61%	1.3%	1.3%	0
Dry needling	59%	9%	4%	0
Acupuncture	63%	5%	2%	0
Rehabilitation techniques	41%	33%	8%	3%
Orthotic prescription	70%	14%	0.7%	0
Therapeutic exercises	28%	43%	16%	9%
Nutritional counseling	61%	20%	3%	0.7%
Activities of daily living advice	22%	35%	29%	14%
Pain medication prescription	70%	15%	2%	0
Taping/strapping	70%	12%	0.7%	0.7%
Lifestyle counseling	41%	28%	13%	7%

PT, Physical therapy.

 Table 19. Percentage of patients having radiographs

Patients receiving radiographs	Percentage of chiropractic practitioners prescribing
0%	0
1%-20%	40%
21%-40%	27%
41%-60%	21%
61%-80%	9%
81%-100%	3%

The Cox flexion-distraction technique is known to be used by many practitioners and was unfortunately not included as a separate category in the therapies and techniques section of the survey. Thus, accurate data on the frequency of use of this technique was not obtained.

#### **Diagnostic Imaging**

Table 19 shows the percentage of patients on whom Swiss chiropractors decide that radiographs are indicated. Radiographs are deemed necessary on between 1% and 40% of patients by 67% of Swiss chiropractors, with most of

 Table 20. When radiographs are indicated, where are they done?

Nearly all in chiropractor's practice	55%
At an imaging center or hospital	30%
Some at chiropractor's practice and others at an imaging center	15%

these practitioners taking radiographs of 20% or less of their patients. When radiographs are required, 55% of doctors of chiropractic state that nearly all are done in their own practice, 30% of doctors of chiropractic report that they only use an imaging center or hospital to have their radiographs taken, and the remainder of practitioners use both their own office and diagnostic imaging centers (Table 20).

When responding to the question asking "Who interprets the diagnostic images of your patients?" 75% of doctors of chiropractic stated that they interpret all of the images, even if a radiologist's report is available. Ten percent of practitioners interpret the images taken in their own practice but rely on the report for images taken elsewhere; and 15% stated that the interpretation of the images on their patients is generally done by a radiologist, but that they still always draw their own conclusions in addition to the report. None

#### Table 21. Who interprets the diagnostic images of the chiropractic patients?

The chiropractor interprets all of the images for the patients, even if there is a radiologist's report.	75%
The chiropractor interprets the images taken in his/her own practice and relies on the report for images taken elsewhere.	10%
The chiropractor does not interpret any of the images on the patients, relying solely on a radiologist's report.	0%
The interpretation is generally done by a radiologist, but the chiropractor always draws his/her own conclusions in addition to the report.	15%

<b>Tuble III</b> i crechtage of patients receiving a ei or nind chantinatio	Table	22.	Percentage	of patients	receiving a	CT or	· MRI	examination
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Percentage of patients receiving advanced imaging	Percentage of chiropractic practitioners selecting option
<5%	10%
5%-10%	46%
11%-20%	21%
21%-30%	13%
31%-40%	6%
>40%	4%

Table 23. Frequency of various health care professionals referring to chiropractic practitioners during the past year

Practitioner	Never	Rarely (<1/mo)	Sometimes (1-3/mo)	Often (1-2/wk)	Routinely (>2/wk)
Acupuncturist	60%	35%	3%	1%	0
Dentist	43%	51%	6%	0	0
Family practitioner (#1)	0.7%	6%	28%	36%	30%
Internist (#2)	8%	24%	33%	18%	9%
Massage therapist (#3)	14%	44%	35%	7%	0
Nutritionist (2nd least likely to refer)	82%	19%	1.4%	0	0
OB/GYN	38%	36%	20%	4%	2%
Orthopedic surgeon	27%	34%	32%	7%	1%
Other chiropractor	20%	66%	13%	1%	0
Pediatrician	40%	38%	14%	5%	3%
Physical therapist	17%	55%	25%	3%	0
Physiatrist (least likely to refer)	82%	14%	3%	1%	0
Neurologist	50%	36%	13%	1%	1%
Neurosurgeon	42%	39%	17%	0.7%	1.4%
Orthopedic technician	75%	22%	3%	0	0
Psychologist/psychiatrist	63%	32%	3%	1.4%	0
General surgeon	61%	34%	3%	1.4%	0

of the chiropractors rely solely on a radiologist's report for their patients (Table 21).

Fifty-six percent of respondents indicated that magnetic resonance imaging (MRI) or computed tomography (CT) is done for 10% or less of their patients (Table 22).

#### **Referrals to Chiropractors and From Chiropractors**

Doctors of chiropractic were asked to rate the frequency of various health care practitioners referring patients to them during the past year (Table 23). Of 17 health care practitioners listed, by far, the most common source of referral patients was from a family practitioner (general practitioner), with 66% of Swiss chiropractors reporting that they "often" or "routinely" receive patients from this source. The second most common source of referrals was from an internist. Referral from a massage therapist was the third most common, orthopedic surgeons were fourth, and physical therapists were fifth. However, 22% of doctors of chiropractic also reported that pediatricians referred patients to them "sometimes," "often," or "routinely." The least likely sources of referrals to doctors of chiropractic were from physiatrists (physical medicine) and nutritionists.

Doctors of chiropractic were also asked to rate the frequency with which they referred patients to this same list of health care practitioners during the past year (Table 24). Similarly, the most common health care practitioners to receive a chiropractic referral were the family practitioner followed by the internist. Eighty-two percent of chiropractors reported that they refer to the family practitioner "sometimes," "often," or "routinely." The third most common health care professional for chiropractors to refer to is the orthopedic surgeon, with the physical therapist being fourth and the massage therapist fifth. As in the previous question, doctors of chiropractic are least likely to refer to physiatrists and nutritionists.

## Discussion

The response rate of 70% to this job analysis survey of chiropractic practice in Switzerland is far higher than the

able 24. Frequency of chiropractic practitioners referring to various health care professionals during the past year
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		Rarely	Sometimes	Often	Routinely
Practitioner	Never	(<1/mo)	(1-3/mo)	(1-2/wk)	(>2/wk)
Acupuncturist	28%	62%	9%	1%	0
Dentist	27%	66%	6%	0	0.7%
Family practitioner (#1)	0.7%	18%	61%	18%	3%
Internist (#2)	17%	30%	43%	9%	1%
Massage therapist (#5)	13%	45%	31%	7%	4%
Nutritionist (2nd least likely to refer to)	50%	46%	4%	0	0
OB/GYN	25%	62%	11%	2%	0
Orthopedic surgeon (#3)	5%	39%	50%	5%	0.7%
Other chiropractor	15%	66%	19%	0	0
Pediatrician	37%	54%	9%	0.7%	0
Physical therapist (#4)	13%	41%	33%	9%	4
Physiatrist (least likely to refer to)	79%	18%	3%	0	0
Neurologist	5%	49%	42%	3%	0.7%
Neurosurgeon	9%	49%	40%	0.7%	0.7%
Orthopedic technician	34%	43%	22%	0.7%	0
Psychologist/psychiatrist	40%	55%	5%	0	0.7%
General surgeon	38%	51%	10%	0.7%	0

results obtained for similar surveys in the US (25%) and the UK  $(42.49\%)^{1,2}$  and is considered to be very good or excellent for an e-mail questionnaire.<sup>11-13</sup> Less than one third of the UK National Health Service questionnaires even achieve their targeted response rate of 60%.<sup>12</sup> Such a high response rate for the Swiss job analysis survey is likely due to the fact that nearly all Swiss chiropractors are organized in one single professional organization. Furthermore, there are far fewer doctors of chiropractic in Switzerland compared with either the US or UK. The fact that participants were awarded 5 CE credits for submitting a completed survey may have helped,<sup>11</sup> as Swiss chiropractors are required to obtain 80 CE credits per year. Because of this high response rate, the results from this survey may be viewed with relative confidence as accurately reflecting chiropractic practice in Switzerland.

Data from this Swiss survey revealed similar as well as different results to those obtained in the US and the UK. The proportion of male chiropractors is higher in all 3 countries, with 71% of Swiss chiropractors responding to this survey being male compared with 82% responding to the US survey and 55% in the UK report.<sup>1,2</sup> The sex ratio for the whole Swiss Association of Chiropractors is 73% male to 27% female; and therefore, those responding to this job analysis survey closely match the overall population. In general, the chiropractors responding to the Swiss survey appeared to have been in practice longer, with 18% having practiced for more than 25 years compared with only 5.96% of the UK respondents and 15.4% of those in the US.<sup>1,2</sup> Although the most common working week for both US and Swiss chiropractors was between 31 and 40 hours, 43% of Swiss chiropractors reported working more than 40 hours per week compared with 30% of the Americans. In fact, 3% of the Swiss work more than 60 hours per week, whereas the figure is only 0.9% for the US practitioners.<sup>1</sup> United Kingdom comparisons were not reported. Slightly less than half of Swiss chiropractors work in their own individual practice, the remainder preferring to work with other chiropractors or in a multidisciplinary setting. In the US, 61.8% of chiropractors reported working as the sole doctor in their office.

Looking at continuing education hours and activities, both the Swiss and US doctors of chiropractic rated attending conferences and seminars as their most common CE source. However, the Swiss are more likely to read relevant journals than the Americans, as they are able to obtain up to 30 of their required 80 credits per year from reflective self-study. The Americans are more likely to accumulate CE credits from attending diplomate courses, whereas this was the least popular CE option in Switzerland.<sup>1</sup> Because all Swiss chiropractors are required to complete a practice-based full-time 2-year postgraduate "assistantship" program, including classes, assignments, assessments, and a final qualifying examination, diplomate programs in Switzerland are not that popular. A source of CE credits in Switzerland that has gained popularity, but was not listed as an option in the US survey, is participation in a local Quality Circle group. Participation in Quality Circle groups is encouraged by the Federal Office of Public Health for members of the medical professions. Quality Circles consist of approximately 6 to 7 local chiropractors who meet every other month with notes being taken of the activities. The practitioners may present and discuss difficult cases, or assign themselves specific tasks to be accomplished. These tasks may include addressing specific educational needs, patient safety issues, practice efficiency concerns, or other relevant activities. This not only is a form of active learning, but encourages collegiality.

Another option for obtaining CE credits that is quite popular with Swiss chiropractors is to attend hospital continuing education courses. Twenty-two percent of the Swiss obtain credits in this way compared with only 5.2% of

the Americans.<sup>1</sup> Looking at the number of continuing education hours obtained in the past year, 68% of Swiss chiropractors reported that they have more than 70 hours of credits, with 20% of the total respondents indicating that they had more than 100 hours. The most common figure obtained in the US job analysis survey for CE hours was between 11 and 20 hours per year (42.3%), followed by 21 to 30 hours (31%). Only 19.8% of US respondents reported more than 30 hours per year of CE credit.<sup>1</sup> The vast discrepancy in CE hours is likely related to differences in CE requirements between the 2 countries. However, as 80 CE credits are required per year in Switzerland, the fact that more than 40% of doctors of chiropractic report a shortfall in this area suggests that those responding to this questionnaire were reporting honest figures and trusted the anonymity of the survey. However, if and when individual members are audited by the Swiss Association of Chiropractors and are found to have insufficient CE credits, they will be required to make up any deficits by the next year.

Sixty-nine percent of Swiss chiropractors treat 100 patients or more per week, with 22% treating 200 or more patients each week. This is far more than reported in the UK survey, where 81% of UK respondents stated that they treat less than 100 patients per week and only 3.16% treat 200 or more patients per week.<sup>2</sup> No data could be found in the US survey for comparison. Following on from these results, it is not surprising that the Swiss also see far more new patients on average than UK chiropractors. Although the 2 surveys used slightly different categories to measure the numbers of new patients, 59% of Swiss chiropractors see 7 or more new patients per week, with 3% of the Swiss participants seeing more than 20 new patients per week. Only 1.5% of UK chiropractors reported seeing more than 20 new patients per week, with the majority (53.63%) stating that they see between 1 and 5.<sup>2</sup> No US data were found for comparison of these figures.

The question asking practitioners whether or not they "primarily delegate the taking of a patient's case history to a nonchiropractic member of staff" seemed to confuse practitioners. Because some doctors of chiropractic have their office staff provide the patient with a detailed history form to fill out while waiting for their first consultation, they answered this question as "yes." The word *primarily* caused the confusion. These doctors of chiropractic followup on the information noted on the history forms during the initial consultation.

The most common age group to present to a doctor of chiropractic in both Switzerland and the US is the 31- to 50year-old patient, followed by those in the 51- to 64-year-old age group. In fact, the ranking of the patient ages to present to a chiropractor is identical between the Swiss and US surveys.<sup>1</sup> Similar results were reported in the UK.<sup>2</sup> Although the US reported that the percentage of pediatric patients presenting to doctors of chiropractic has risen in America,<sup>1</sup> it is interesting to also see that 78% of Swiss chiropractors treat patients younger than 5 years and that 91% of practitioners treat patients between the ages of 6 and 17 years. The Swiss figures are higher than those reported for the UK, where 60% of chiropractors see children younger than 5 years and 81% treat children between the ages of 6 and 15 years.<sup>2</sup> Furthermore, Swiss chiropractors report that 22% of them receive direct referrals from pediatricians "sometimes" (1-3/mo), "often" (1-2/wk), or "routinely" (>2/wk).

Although Swiss chiropractors see more new patients per week and more patients in general per week compared with the UK practitioners, 61% of Swiss chiropractors will see an urgent new patient the same day compared with 43.79% of those practicing in the UK. The results for seeing a nonurgent new patient are very similar between the 2 countries.<sup>2</sup> The fact that UK practitioners tend to spend slightly more time with a new patient as well as with subsequent patient visits may contribute to the delay in seeing an urgent new patient. Whereas the most common period to spend with a new patient is between 31 and 45 minutes in both Switzerland and the UK, only 14% of Swiss chiropractors spend longer than 45 minutes compared with 38% of UK practitioners. The majority of Swiss chiropractors (58%) allow 11 to 15 minutes per office visit for a follow-up patient, with only 12% offering more than 15 minutes. Forty-seven percent of UK practitioners spend more than 15 minutes with a subsequent patient visit.<sup>2</sup>

The most common source of new patients for both Swiss and UK chiropractors is "word of mouth" from other patients.<sup>2</sup> Referral from a medical doctor is the second most common source of patients in Switzerland, with 53% of chiropractors obtaining between 26% and 75% of their patients directly from medical doctors. When looking further at specific health care professionals and the frequency that they refer to a doctors of chiropractic in Switzerland, 94% of the profession reported that they receive patients from a family practitioner sometimes, often, or even routinely. Furthermore, internists are the second most common health care professionals to refer to Swiss chiropractors, with 60% of practitioners receiving patients sometimes, often, or routinely. Referral from medical doctors is far more common in Switzerland than in either the US or UK. The US survey only includes "internist" and reports referrals between "rarely" (1-2/y) and "sometimes" (1-2/mo).<sup>1</sup> Although the UK job analysis survey reported that 75.64% of doctors of chiropractic receive referrals from family practitioners, there is no mention about the frequency of these referrals.<sup>2</sup> The closer working relationship between chiropractic and medical physicians in Switzerland most likely results from several key factors. These include (a) legislation that defines chiropractic as a medical profession on par with medicine, dentistry, veterinary medicine, and pharmacology and includes coverage for chiropractic services in the national sickness and accident insurance plans; (b) the long history

of requiring a 2-year postgraduate program followed by a comprehensive examination given by a board consisting of experts with medical and chiropractic backgrounds; (c) the mandatory 4-month hospital rotation through rheumatology and orthopedics by all overseas graduates that has been in place for the past 10 years; (d) 80 hours per year of mandatory CE credits; and (e) the fact that all doctors of chiropractic must pass the first year of medicine to practice in Switzerland. All of the above foster better interprofessional communication and understanding, which logically should result in better care for the patients. Further evidence of the good interprofessional working relationship between doctors of chiropractic and the other specialties of medicine in Switzerland is found in the frequency with which doctors of chiropractic refer patients to these various specialists. Family practitioners, internists, and orthopedic surgeons, in that order, are the most frequent specialties to receive chiropractic referrals, with 82% of Swiss chiropractors referring "sometimes," "often," or "routinely."

Most of the patients seen by Swiss chiropractors are in the acute phase of their problem, with symptoms of between 0 and 4 weeks or the subacute phase (4-8 weeks), whereas in the UK, the most common category of patient to be seen is in the chronic phase, with symptoms of more than 12 weeks in duration.<sup>2</sup> The chronic patient is the least likely category of patient to be seen by Swiss chiropractors, making up less than 25% of the patients treated in 81% of practices. Reasons behind these differences are difficult to determine. However, the fact that direct referrals from medical doctors are the second most common source of patients for Swiss chiropractors may explain at least some of this difference. Patients may be referred earlier in the course of their complaint because these medical professionals recognize the benefit of chiropractic care. The chronicity of patient complaints will be an important factor to monitor in the patients attending the teaching clinic for the undergraduate chiropractic program at the University to make sure the students are prepared for the realities of their future practices.

Swiss and American doctors of chiropractic both report that the most common "chief complaint" to present to their practices is "low back/pelvic pain with or without leg pain,"<sup>1</sup> with neck complaints coming in second. Practitioners from both countries also reported similar etiologies for these chief complaints. "Activities of daily living" and "overuse or repetitive stress" were the most common causes of patient symptoms. Although this information is not surprising, it is important to have verification when developing a chiropractic curriculum. However, the US doctors of chiropractic reported that motor vehicle accidents were the third most common cause of their patients' complaints, whereas motor vehicle accidents were not a common etiology for patient symptoms in Switzerland. Many more Swiss citizens commute using the very safe and efficient public transportation system in Switzerland compared with the US.

Like chiropractors in other countries, the vast majority of a practitioner's working time is devoted directly to patient care. In addition, more than half of Swiss chiropractors will also treat patients outside of their office setting, such as in a patient's home; and 6% have staff privileges in a hospital. The most common therapeutic technique reportedly used by Swiss chiropractors is diversified adjusting technique. This is the same as reported in the US survey. The UK survey did not specifically ask about the use of various adjusting techniques.<sup>2</sup> Information about the common and uncommon therapeutics applied in Swiss chiropractic practice is important for planning the chiropractic technique courses at both the undergraduate and postgraduate levels.

Swiss chiropractors, like their UK counterparts, appear to be following evidence-based diagnostic imaging guidelines when deciding when to take radiographs of their patients.<sup>2</sup> Less than 40% of Swiss patients are radiographed by the vast majority of practitioners. This percentage of patients being radiographed appears to be significantly lower than that reported in the US survey where radiographs were "frequently" performed on new patients. Frequently was defined in the US survey as between 51% and 75% of the patients.<sup>1</sup> Swiss chiropractors also reported that even if they have a radiologist's report, 75% of them will still interpret all of the diagnostic images of their patients, with none of the Swiss chiropractors relying solely on a radiologist's report. Although 70% of Swiss chiropractors take radiographs in their own practices, many also refer their patients to diagnostic imaging centers. Working in a practice with radiographic facilities is a requirement for those chiropractors doing their 2-year postgraduate assistantship program; and thus, those chiropractors wishing to serve as full-time "principals" for these assistants would be required to have radiographic equipment. Being a medical profession also allows Swiss chiropractors to directly order laboratory tests or advanced imaging studies. However, MRI or CT scans are done for 10% or less of chiropractic patients, suggesting that chiropractic physicians are carefully evaluating and monitoring their patients' conditions and using evidence-based guidelines when ordering advanced imaging procedures.

# Limitations to the Study

As with any research study that relies on questionnaire data, the results are only as valid as the accuracy and honesty of the respondents. No attempt was made to verify the answers provided because this would violate the anonymity of the participants. However, the results for the question concerning the number of hours of CE obtained during the past year suggest that the data supplied are honest and accurate. Although comparisons were made between the results of this survey to similar surveys done in the US and the UK, the very low response rates, particularly in the US, may make some of the comparisons and

conclusions drawn inaccurate. In addition, the survey instruments used for the job analysis studies for Switzerland, the US, and the UK were all quite lengthy questionnaires, which will negatively influence response rates.<sup>11,12</sup> No attempt was made to determine the reasons behind the fact that 30% of Swiss chiropractors did not return the survey. However, the 70% response rate was very good as supported by the literature. It would have been ideal to compare the demographic information obtained from the survey responders to the demographic information for all Swiss chiropractors to definitively determine how representative the 70% were of the total population. Unfortunately, the Swiss Association of Chiropractors does not have updated information on these demographic characteristics other than for the sex ratio, which closely matched that of the survey respondents.

# Conclusions

The Swiss job analysis survey, with a 70% response rate, provides a useful overview of chiropractic practice in Switzerland. Swiss chiropractors in general are predominately male, treat more female than male patients, see more patients in the 31- to 50-year age group, and see patients with the most common chief complaints of low back/pelvic pain with or without leg pain followed by neck pain with or without arm pain. These findings are similar to reports from other countries and provide important information for guiding educational emphasis. Where Swiss chiropractors differ is that they are more likely to treat acute patients compared with chronic patients, have at least 80 hours per year of required CE credits, follow evidence-based guidelines for the use of diagnostic imaging, see more than 7 new patients per week, treat more than 100 patients per week, and have very high percentages of referrals from various medical specialists. The reasons behind these differences partly stem from the fact that chiropractic in Switzerland is considered 1 of the 5 medical professions, resulting in much better interprofessional relationships and referral patterns compared with other countries, reflecting chiropractic's status as integrated with medicine.<sup>5-9</sup> This integration has most likely arisen because of legislation, insurance laws, and a mandatory full-time 2-year postgraduate program required of all graduates, followed by a rigorous set of undergraduate and postgraduate examinations, the high number of mandatory CE credits required, the 4-month hospital rotation through orthopedics and rheumatology, and the requirement that all Swiss chiropractors must pass at least the first year of medicine if studying abroad. Although similar in structure to the excellent chiropractic program at the University of Southern Denmark, the students at the University of Zürich are part of the medical program and graduate with a Masters degree in Chiropractic Medicine, whereas the students in Denmark are part of the

Clinical Biomechanics program and graduate with a Masters degree in Clinical Biomechanics.

This interprofessional cooperation should only increase now that Switzerland has its own chiropractic program in the faculty of medicine, University of Zürich. This will likely further increase the number of patients receiving care early on. Although Swiss chiropractors are in a "medical" profession, they maintain their own distinct identity, are in charge of their own undergraduate and postgraduate programs, and are able to choose their own individual practice style. The information obtained from this survey will be used to guide the undergraduate and postgraduate educational topics to ensure that the future Swiss chiropractors are prepared to take their places within the profession.

# **Practical Applications**

- Chiropractic in Switzerland is one of the 5 federally regulated medical professions.
- Swiss chiropractors have excellent inter-professional referrals.
- Acute patients are the most common category of patient to present to Swiss chiropractors.
- Low back and neck complains are the most common conditions seen by Swiss chiropractors.

# Acknowledgment

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# Funding Sources and Potential Conflicts Of Interest

No funding sources or conflicts of interest were reported for this study.

# Appendix A. Job Analysis Survey: Chiropractic Practice In Switzerland

Instructions: All information is strictly confidential and anonymous. Please answer all questions. Your responses will help to direct the undergraduate and postgraduate education of chiropractors in Switzerland. It will also be compared to the job analysis surveys done in the UK and USA.

# **Demographic Data**

- 1. Gender
  - □ Male
  - $\Box$  Female
- 2. Years in practice since completing Assistantship
  - $\hfill\square$  less than 2 years
  - $\Box$  2-4 years
  - $\Box$  5-15 years
  - $\Box$  16-25 years
  - $\Box$  more than 25 years
- 3. Hours per week you practice
  - $\square$  less than 10
  - □ 11-20
  - □ 21-30
  - □ 31-40
  - □ 41-50
  - □ 1-60
  - $\Box$  more than 60
- 4. In which of the following continuing education opportunities do you participate?
  - (Mark all that apply.)
  - $\Box$  Read journals
  - $\Box$  Attend conferences/seminars
  - $\hfill\square$  Attend "diplomate" courses
  - $\hfill\square$  Attend hospital staff CE meetings
  - $\hfill\square$  Online credit courses
  - □ Quality Circles
  - □ Other (list)\_\_\_
- 5. How many hours of continuing education credits have you earned during the past year?
  - □ None
  - □ 1-10
  - □ 11-20
  - □ 21-30
  - □ 31-40
  - □ 41-50
  - □ 51-60
  - □ 61-70
  - □ 71-80
  - □ 81-90
  - □ 91-100
  - $\square$  more than 100
- 6. Institution that conferred Chiropractic degree
  - $\square$  Canadian Memorial Chiropractic College
  - □ Université de Québec à Trois Riviéres
  - $\Box$  Cleveland Chiropractic College
  - $\Box$ Logan Chiropractic College
  - $\Box$  Los Angeles College of Chiropractic
  - $\hfill\square$  National University of Health Sciences
  - $\square$  New York Chiropractic College
  - $\hfill\square$  Northwestern College of Chiropractic
  - □ Palmer College of Chiropractic
  - □ Palmer College of Chiropractic West

- Texas Chiropractic College
- $\hfill\square$  Western States Chiropractic College
- $\hfill\square$  Anglo-European College of Chiropractic
- □ Welsh Institute of Chiropractic, University of Glamorgan
- □ Institut Franco-Européen de Chiropratique
- □ University of Southern Denmark
- 7. Highest level of nonchiropractic education attained
  - □ Gymnasium
  - □ University degree
  - □ Doctoral degree
  - □ Other (list)\_\_\_\_

# Patient Data

- 8. Number of patients you personally treat per week
  - $\square$  less than 50
  - □ 50-99
  - □ 100-149
  - □ 150-199
  - □ 200-249
  - □ 250-300
  - $\Box$  more than 300
- 9. Number of NEW patients you personally see per week □ 0
  - □ 1-3
  - □ 4-6
  - □ 7-9
  - □ 10-12
  - □ 13-15
  - □ 16-20
  - $\Box$  more than 20
- 10. According to your statistics provided by Santésuisse, how many of your patients are from each of the following gender and age categories?

Gender	None	1%-25%	26%-50%	51%-75%	76%-100%
Male					
Female					

Age	None	1%-25%	26%-50%	51%-75%	76%-100%
5 or younger					
6-17					
18-30					
31-50					
51-64					
65 or older					

- 11. How soon can a NEW patient get an URGENT appointment with you?
  - $\Box$  Same day
  - $\Box$  1-2 days
  - $\Box$  3-4 days

- □ 5-7 days
- $\Box$  more than 1 week
- 12. How soon can a NEW patient get a NONURGENT appointment with you?
  - $\Box$  Same day
  - $\Box$  1-2 days
  - $\Box$  3-4 days
  - $\Box$  5-7 days
  - $\square$  more than 1 week
- 13. How much time, on average, do you spend with a NEW patient on the first visit?
  - $\Box$  0-5 minutes
  - $\Box$  6-10 minutes
  - $\Box$  11-15 minutes
  - $\Box$  16-30 minutes
  - $\Box$  31-45 minutes
  - $\Box$  46-60 minutes
  - □ 61-75 minutes
  - $\Box$  1 hour 16 minutes to 1 hour 30 minutes
  - $\square$  more than 1 1/2 hours
- 14. How much time, on average, do you spend with a patient on SUBSEQUENT visits?
  - $\Box$  0-5 minutes
  - $\Box$  6-10 minutes
  - $\Box$  11-15 minutes
  - $\Box$  16-30 minutes
  - $\Box$  31-45 minutes
  - □ 46-60 minutes
  - $\Box$  61-75 minutes
  - $\Box$  1 hour 16 minutes to 1 hour 30 minutes
  - $\Box$  more than 1 1/2 hours
- 15. What percentage of your patients that you saw IN THE PAST MONTH presented with the following symptom duration?

	None	1%-25%	26%-50%	51%-75%	76%-100%
Symptom free					
0-4 wk					
4-8 wk					
8-12 wk					
More than					
12 wk					

- 16. At what visit interval do you reassess your patients for whom you are providing ongoing care?
  - □ 1 visit
  - $\square$  2-3 visits
  - $\Box$  4-5 visits
  - $\Box$  6-7 visits
  - $\square$  8-9 visits
  - $\Box$  after 10 or more visits
  - $\Box$  I do not reassess

17. Please identify the source of your new patients and the approximate percentage received from each source.

	Approximate %
□ Swiss Chiropractic Association (ASC) website	
□ Your own personal website	
□ Patient contact with the ASC	
□ Sign/location of your practice	
□ Advertising in local papers	
□ Word of mouth/patient referrals	
Chiropractic patients association	
Referral from medical practitioner	
□ Referral from other chiropractor	
□ Referral from other health care practitioner	
□ Other	
□ Don't know	

18. Approximately what percentage of your time is spent on each of the following functions during a typical week? (Total should be approximately 100%.)

	None	1%-25%	26%-50%	51%-75%	76%-100%
Direct patient care					
Documentation of care					
Business management (personnel, marketing, etc)					
Patient education					

# Work Environment

- 19. Which description best characterizes your role in the office where you work?
  - $\Box$  Individual practitioner/only chiropractor in office
  - $\Box$  One of two or more chiropractors in office
  - $\Box$  Junior associate or examining doctor
  - □ Practitioner in multidisciplinary office
  - $\Box$  Other
- 20. Do you practice in more than one office location?
  - □ Yes
  - 🗆 No
- 21. Do you primarily delegate taking x-rays to a nonchiropractic member of your staff?
  - □ Yes
  - 🗆 No
  - $\Box$  I do not take x-rays in my office
- 22. Do you primarily delegate developing x-rays to a nonchiropractic member of your staff?
  - $\Box$  Yes
  - 🗆 No
  - $\Box$  I do not take x-rays in my office
- 23. Do you primarily delegate administration of adjunctive therapies to a nonchiropractic member of your office staff?

- 24. Do you ever deliver chiropractic care outside an office setting, such as in a patient's home?
  - $\Box$  Yes
  - $\square$  No
- 25. Do you have staff privileges at a hospital?
  - $\Box$  Yes
  - 🗆 No
- 26. With what percentage of patients do you use the following techniques/treatments? (May add up to greater than 100% as patients may receive more than one therapy.)

	Approximate % of patients
Diversified osseous adjusting	
□ Gonstead osseous adjusting	
□ Drop technique	
□ Activator technique	
□ Applied kinesiology	
□ Network technique	
□ Mobilization	
□ Active muscle release techniques	
(Graston etc)	
Sacrooccipital technique	
□ Physical therapy modalities (ultrasound,	
electrotherapy, heat/cold, traction, etc)	
□ Massage	
□ Trigger point therapy	
□ Trigger point injections	
$\Box$ Dry needling	
Rehabilitation techniques	
□ Orthotic prescription	
□ Therapeutic exercises	
□ Nutritional counseling	
Activities of daily living advice	
Pain medication prescription	
□ Strapping/taping	
□ Lifestyle counseling	
□ Other (specify)	

- 27. For what percentage of patients is an x-ray justified?□ 0%
  - □ 1%-20%
  - □ 21%-40%
  - □ 41%-60%

  - □ 81%-100%
- 28. When radiographs are indicated for your patients, where are they done?
  - □ Nearly all are taken in my practice
  - $\Box$  At an imaging center or hospital
  - $\Box$  Some are taken at my practice and others are referred to another facility.
- 29. Who interprets the diagnostic images of your patients?
  - $\Box$  I generally interpret all of the images on my patients, even if I have a radiologist's report.

- □ I only interpret the images that I take in my practice and rely on the report for images taken elsewhere.
- □ I do not interpret any of the images on my patients, relying solely on a radiologist's report.
- □ The interpretation is generally done by a radiologist, but I always draw my own conclusions in addition to the radiologist's report.
- 30. In approximately what percentage of your patients are CT or MRI scans taken? (Either you refer for these images or the patient has already had them done.)
- 31. How frequently have the following health care professionals made <u>referrals to you</u> during the past year?

Practitioner	Never	Rarely (<1/mo)	Sometimes (1-3/mo)	Often (1-2/wk)	Routinely (>2/wk)
A common otomist					
Domtiat					
Eamily					
r allilly					
Internist					
Magaaga					
thoropist					
Nutritionist					
OP/GVN					
Ob/OIN Outhomadia					
Ormopedic					
Neurologist			_		_
Neurologist					
Neurosurgeon					
other					
Dedictor	_	_	_	_	_
Pediatrician Dissoinal					
Physical					
Dhysisterist				_	
Physiatrist					
Orthopedic					
D 1 1	_	_		_	_
Psychologist/					
psychiatrist	_	_		_	_
Surgeon					
Other	$\Box$	$\Box$		$\Box$	

32. How frequently have **you made referrals to** the following health professionals during the past year?

Practitioner	Never	Rarely (<1/mo)	Sometimes (1-3/mo)	Often (1-2/wk)	Routinely (>2/wk)
Acupuncturist					
Dentist					
Family					
practitioner					
Internist					
Massage					
therapist					
Nutritionist					
OB/GYN					
Orthopedic					
surgeon					

<sup>□</sup> Yes

<sup>🗆</sup> No

Practitioner	Never	Rarely (<1/mo)	Sometimes (1-3/mo)	Often (1-2/wk)	Routinely (>2/wk)
Neurologist					
Neurosurgeon					
Other					
chiropractor					
Pediatrician					
Physical					
therapist					
Physiatrist					
Orthopedic					
technician					
Psychologist/					
psychiatrist					
Surgeon					
Other					

# **Chief Complaints and Etiology**

**Instructions:** This section lists areas of chief complaints and possible etiologies. Please indicate the approximate percentage of patients in your practice during the past year who presented with each chief complaint and the percentage of patients represented by each primary etiology.

# Chief Complaints and Wellness Care

33. What percentage of your patients in the past year presented with the following chief complaints? (Total should be approximately 100%.)

Percentage	None	1- 10	11- 20	21- 30	31- 40	41- 50	51- 60	61- 70	71- 80	81- 90
Headache or facial pain without										
Headache with neck pain										
Neck pain/injury without arm pain or headache										
Neck pain/injury with arm pain										
Midback										
Low back, pelvis pain/injury without leg pain										
Low back, pelvis pain/injury with leg pain										
Upper extremity pain/injury										
Lower extremity pain/injury										
Chest pain/injury										

Percentage	None	1- 10	11- 20	21- 30	31- 40	41- 50	51- 60	61- 70	71- 80	81- 90
Abdominal pain/injury										
Wellness/ preventive care										
Other nonmusculo- skeletal condition. Specify:										

# Etiologies

34. What percentage of your patients in the past year presented with the following primary etiologies for their chief complaints? (Total should be approximately 100%.)

		1	11	21	21	4.1	5.1	(1	71	0.1
Percentage	None	1-	20	21- 30	31- 40	41- 50	51- 60	61- 70	/1-	81- 90
A ativitias of										_
daily living										
(eq in and										
around home)										
Motor vehicle			П	П						
accident										
Overuse/repetitive										
stress										
Sports/exercise/										
recreation										
Work (not										
repetitive stress)										
Acute illness/										
pathology (eg,										
colds, ear										
infections)	_	_	_	_	_	_	_	_	_	_
Chronic illness,										
pathology (eg,										
diabetes)										
Emotional										
stressors										
Environmental			П	П						
stressors,	_	_	_	_	_	_	_	_	_	_
including										
dietary										
Other. Specify:										

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