

Sustaining and Improving Our Health Care: A Call for Action

**Submission to the
Commission on the Future of Health Care in Canada**



**Canadian Memorial
Chiropractic College**



**The Canadian
Chiropractic Association**

January 2002

The Canadian Chiropractic Association (The CCA) and the Canadian Memorial Chiropractic College (CMCC) are pleased to submit this document to the Commission on the Future of Health Care in Canada for consideration. In order to appreciate the scope of our recommendations, it is important to have an understanding of our background and mandate.

The Canadian Chiropractic Association (The CCA)

The Canadian Chiropractic Association is a federated association representing the chiropractic profession in Canada through the coordination of information and programming among its provincial divisions. All 10 provinces plus the Yukon Territory are represented and through them The CCA has a membership of approximately 5,000 chiropractors.

The CCA's mission is to help Canadians live healthier lives by informing the public about the benefits of chiropractic care; promoting the integration of chiropractic into the health care system; and by facilitating chiropractic research. In pursuit of this mission The CCA promotes research within the Cochrane Collaboration and under the auspices of the Canadian Institutes of Health Research through the establishment of Research Fellowships and Doctoral Research Awards. It also promotes the establishment of chiropractic research centres and works collaboratively with other health organizations, associations, institutions and universities.

The chiropractic profession has been in existence for approximately 106 years. It is a regulated health profession recognized by statute in all Canadian jurisdictions. All chiropractors must successfully pass both national and provincial examinations prior to being licensed to practice. In their scope of practice, chiropractors deal with neuromusculoskeletal conditions primarily related to headache, neck pain, and back pain. The primary goal of chiropractic adjustments is to treat areas of decreased movement in the spinal and peripheral joints which can create a reaction in surrounding tissues, that is, ligaments, muscles and nerves, resulting in pain, dysfunction and muscular spasm. As primary contact health care practitioners, chiropractors are licensed to treat, in the same manner as are doctors of medicine, dentistry or psychology. The public may contact chiropractors directly and without referral.

Canadian Memorial Chiropractic College (CMCC)

Founded in 1945, CMCC is regarded as a world leader in chiropractic education and health research. CMCC is a fully accredited, self-supporting, professional health educational institution funded by the chiropractic profession in Canada. It is a not-for-profit, charitable organization that receives no direct government funding and relies on membership fees, tuition and donations for support.

CMCC offers a four-year program of rigorous academic and clinical health education, similar to that of other health care professionals, including a one-year internship in one of the College's teaching clinics. The program requires about 4,500 hours of academic and clinical education, including studies in biological sciences, anatomy, biochemistry, physiology and neurology, as well as clinical and chiropractic services. Students are required to complete a minimum of three years of university before they are eligible for admission to the CMCC accredited program.

CMCC has been a leader in chiropractic research for more than five decades. The College has dedicated itself to the development of an ongoing, productive research program. Faculty members have been successful in obtaining research grants from a variety of funding agencies and have published extensively in peer-reviewed and refereed chiropractic journals, and in multi-disciplinary journals such as *The British Medical Journal*, *Spine*, *Pain*, *Annals of Internal Medicine*, and the *New England Journal of Medicine*. Faculty from CMCC have collaborated with researchers from other academic and health care institutions in North America including the University of Toronto, University of Waterloo, McMaster University, University of Western Ontario, Institute for Work and Health, University of Calgary, University of Saskatchewan, St. Michael's Hospital in Toronto, Sunnybrook and Women's College Health Sciences Centre in Toronto, St. Joseph's Hospital in Hamilton, and the Texas Back Institute in Plano, Texas. CMCC has partnered with the Canadian Institutes for Health Research on Postdoctoral Research Fellowships.

EXECUTIVE SUMMARY

Without adequate resources and mechanisms in place to ensure timely access to quality health care, not only is patient care compromised, but Canadians are denied the essential health care services to which they are entitled under the *Canada Health Act*.

FACTORS INFLUENCING PATIENT CARE

Many factors, which can adversely influence patient care, affect the delivery of health care services. These factors include:

- the need to update the *Canada Health Act* to include health care technologies and effective treatments to ensure sustainability of the health care system,
- inconsistency in health care delivery resulting in the inability of Canadians to access comprehensive and cost-effective services,
- inadequate funding levels for health care services and resources,
- lack of application of multi-disciplinary approaches to primary health care delivery,
- lack of awareness of the value of non-medical regulated health care services,
- lack of recognition of health research uptake in system funding,
- inadequate measures and investments in health promotion and preventive care.

In providing front-line health care, the chiropractic profession has observed the impact of these factors on patient care. The profession is concerned that unless action is taken to eliminate or alleviate factors that adversely affect patient care, the sustainability and affordability of our health care system will be further threatened.

SUMMARY OF RECOMMENDATIONS

- A. Develop a framework for improving the delivery of health care services which is both patient centred and reflective of outcomes research.
- B. Support population-based investment in comprehensive health care delivery for special needs populations such as for the ageing, working poor and Aboriginal populations.
- C. Move towards an effective integrative delivery of health care services.
- D. Develop regulated health care research centres.
- E. Clarify 'medically necessary' services.
- F. Utilize health promotion and prevention strategies.

INTRODUCTION

In a report released in October 2001 by the Canadian Institute for Health Information, preliminary statistics revealed that in fiscal 2001/02, health care spending is projected to reach \$69.2 billion. This is an increase of \$20 billion since 1996/97. In 2001/2002, just under 63 percent of total provincial/territorial government health expenditures is expected to be allocated to health programs covered by the *Canada Health Act*, with expenditures on hospitals accounting for approximately 43 percent, and physician services for approximately 20 percent.

The spiralling increase in health care expenditures places additional pressures on decision-makers, providers and governments to effectively manage health care resources while ensuring that the delivery of health care is not compromised. Currently, there are few mechanisms in place to measure the cost-effectiveness and efficacy of those health care services covered under the *Act*. Furthermore, there are limited efforts to research, explore or incorporate the proven and effective methods of regulated health care professions not currently delineated by the *Act*.

The chiropractic profession believes that effective and appropriate regulated health care should be available to Canadians when they need it. It is essential that health care delivery be cost-effective. Our submission will demonstrate how the inclusion of chiropractic care can assist with managing health care expenditures and in sustaining our health care system, while improving the health of Canadians.

This submission addresses the Commission's themes incorporating:

- critical elements of a sustainable health care system,
- factors that will affect managing change for effective health care delivery,
- building co-operative relations,
- the benefits of integrating chiropractic care within the health care system,
- recommendations for action.

CRITICAL ELEMENTS FOR SUSTAINABILITY

We acknowledge that the system needs to change. Financial cutbacks, plus the increasing health care needs of a growing and ageing population, present considerable challenges to Canadians. To support the need for comprehensive reform, and to ensure the sustainability of the health care system, we must examine key elements that affect the current system.

Our Values

Canadians place significant value in maintaining and sustaining their health care system into the future both for themselves and for their children. Population health is key to our high standard of living and is a major contributor to personal, social and economic well-being. The chiropractic profession values goals that offer universal access to all regulated health care services, that distribute funding for health care resources fairly, and that allow for effective system reform based on measurable outcomes.

Canada Health Act

The principles of the *Canada Health Act* underlay our current system and provide a strong background from which to make the changes that are necessary to ensure timely access to health services. However, the existing principles under the *Act* are inadequate.

Provisions for quality chiropractic health care under the *Act* are insufficiently flexible to meet patient needs and do not consider the impact of changing demographics. The *Act* does not keep abreast of the benefits in health outcomes of new technologies, diagnostic procedures and methods of evidence-based health care that would enhance the quality of care provided to patients either in an institution or at home. The integration of proven services into the current health care system can enhance and improve patient care by reducing the number of unnecessary surgeries, by providing accurate interpretation of diagnostic tests at early stages, and by enabling health care professionals to provide effective management of clinical conditions.

MANAGING CHANGE FOR EFFECTIVE HEALTH CARE DELIVERY

The CCA and CMCC have identified the following system weaknesses which require attention from a public policy perspective.

Fragmentation of health care services

- *Inconsistency of patient access to services* - The evolution of health care services has affected their quality and continuity. This has resulted in inconsistent access to services, and gaps in service delivery. For example, Aboriginal patients, who are transferred from a hospital to a community setting, may not receive the same level of care. There are no checks and balances in place to ensure that the level of care has been continued.
- *Universal coverage for chiropractic services* - The delivery of chiropractic health services is fragmented because of funding inconsistencies. Sources of funding are provincial health plans and programs, private health insurance, workers' compensation programs and Canadians who pay for services out-of-pocket. Each payer may have its own criteria on the specific chiropractic services it will provide. These criteria may be inconsistent with the provision of comprehensive continuity of care. Health services such as chiropractic, dentistry, podiatry and physiotherapy are often not fully insured or are subject to limitations, primarily because the *Canada Health Act* does not clearly define them as essential services. This leads to wide and inconsistent interpretation by provincial health planners and is often used as the reason why provincial health plans do not cover them. It is interesting to note that many services offered by these practitioners are not publicly funded, but the same services are funded if performed by a medical doctor.
- *Funding for chiropractic services* - The proportion of public health care funding for chiropractic services varies from province to province. This disproportionate funding is due to the lack of specificity in the *Act* regarding chiropractic services.

Health Care Utilization and Research

- *Chiropractic Value* - Chiropractic care can reduce the health care costs associated with neck and back pain. Traditional medical management of neck and back pain has been costly and ineffective

and there are solid research supported and fiscal reasons to re-orient the health care system towards chiropractic care as the primary care for management of these conditions.¹

- *Data* - The fact that national funding and utilization data by the health care sector is not collected at a comprehensive level is indicative of the value that is placed on developing strategies for effective health care delivery. Without this infrastructure, providers and users of services have no way of conducting comparisons with other health care services on best practices and utilization trends across the country to determine whether the delivery of quality health care services is effective. Comprehensive, comparable data is critical in order to ensure that patients are being treated effectively.
- *Treatment Guidelines* - The use of treatment guidelines plays a critical role in improving standards of health care delivery, in reducing unnecessary costs, and in eliminating duplication of health care resources. However, support for best treatment practices has not yet emerged as a priority.
- *Quality Assurance* - The mechanisms in place to ensure quality assurance of health services delivery need to be updated and made consistent across the board. Regulated health care professions are subjected to quality assurance protocols established by their respective health disciplines.
- *Research* - The chiropractic profession has made health research and education a priority. Health research will increase the need for evidence-based care, will facilitate the need for improved effectiveness and efficiency in the system, will acknowledge the under-utilization of chiropractic services and will help provide evidence about the need to improve patient outcomes.

Integrative Health Care

Integrative health care encompasses both traditional and complementary health care. Canadians are using complementary therapies on average of 4.4 times per year as part of their integrated health care.² An April 2000 Ipsos/Reid survey revealed that “half of Canadians have by now used complementary health care at some point in their lives and chiropractic is clearly the most popular choice. Six in ten Canadians who have ever used a non-conventional medicine or practice have gone to a chiropractor.”³ The 1998/99 national health survey data revealed that 3.8 million people reported having used the services of an alternative health care practitioner for health conditions such as chronic pain and back problems.⁴ It is estimated that Canadians, in a one year period 1996-97, spent approximately \$3.8 billion out-of-pocket on complementary health care.⁵ Despite the accumulated evidence that Canadians are using a combination of conventional and complementary health care, there has been little recognition of the legitimate place of complementary regulated health care within the health care system.

A greater integration of the health care system is impossible at present because current health care infrastructure does not recognize the benefits of regulated complementary health care and its effect on patient care and health outcomes. It is essential that data be collected and evaluated so that health care policy and funding decisions are based on understanding the efficacy and cost effectiveness of complementary regulated health care. In addition, there are significant economic barriers to access complementary health care since treatment fees are usually required to be paid out-of-pocket.

It was encouraging to have Health Canada and Human Resources Development Canada approach the most popular complementary health care groups to discuss the feasibility of a comprehensive study of this sector. The study is reflective of public choice in health care providers, of the significant role now being assumed by complementary health care, and it underlines the growing importance and relevance of this sector. Equally significant is the agreement of the various disciplines to work together through this study for the ultimate benefit of their patients. The professions represented are chiropractic, traditional Chinese medicine, acupuncture, massage therapy, naturopathy, homeopathy, and herbology. Of these disciplines chiropractic is the profession most often chosen by the general public.

Managing Change

Managing change requires re-tooling the health care system framework through exploring health care strategies and evidence that has demonstrated cost-savings for the health care system in order for it to be sustainable. The health care system must continue to evolve as a result of new knowledge and changes in population health. Change is always difficult and it must be managed carefully. To effectively manage change, the following requirements are necessary:

- the planning, evaluation, funding and delivery of health care services should be a shared responsibility among providers and users, yet we must ensure that Canadians continue to have the right to choose their health care provider while accessing quality health care services regardless of their social status,
- effective communication among government, decision-makers, health providers and Canadians is critical,
- the federal government's leadership is essential to the development of a national health care vision,
- we must encourage the development of a national health information infrastructure in which the sharing of data on public health, population health and the health system can be utilized to improve health outcomes,
- preventative care must be enhanced through the dissemination of educational information on wellness and health promotion programs,
- we must facilitate the development of a national health research agenda including the integration of ongoing efforts among academia, governments and health professions. This initiative must promote interdisciplinary analysis of health issues and address Canadian health care needs as well as ensuring access to scientific knowledge.

BUILDING CO-OPERATIVE RELATIONS

Sustaining and improving our health care requires the co-operative and collaborative effort of health care professionals, governments, regulatory and professional bodies, and the general public. Everyone must be committed to achieving effective health care delivery by finding the right balance between Canadians' expectations of their health care system and our collective ability to pay for those expectations.

Co-operation among health disciplines is essential to sustain and improve our health care. There is current evidence of this co-operation between medical and chiropractic practitioners. Increasingly, medical and chiropractic practices work in close co-operation, either by referral or in full and formal partnerships. In a 1995 study, 44% of Ontario and Alberta physicians surveyed indicated that they refer their patients for chiropractic care.⁶

Co-operative mechanisms should be in place to address the needs of Canadians, particularly those who face special health care challenges such as Aboriginals. CMCC's teaching clinics provide health care services to Aboriginal patients. These services are often not funded. Unless the inconsistency of funding within the health care system is addressed, patients will see reduced access to services. In this regard, we concur with the Standing Senate Committee on Social Affairs, Science and Technology's recommendations to develop a National Action Plan on Aboriginal Health to improve inter-jurisdictional co-ordination of health care delivery. Chiropractors are well aware of the profound social and political nature of health problems of Aboriginal people in Canada and are sensitive to the obstacles they face in achieving wellness.

THE BENEFITS OF INTEGRATING CHIROPRACTIC WITHIN THE HEALTH CARE SYSTEM

The following is an overview of the facts on chiropractic care and the role of chiropractors, as primary contact health care practitioners, in mainstream health care.

Facts on Chiropractic Care

- Chiropractic has existed for more than one hundred years. It is one of the largest primary-contact health professions in Canada with approximately 6,000 practising chiropractors.
- Chiropractors assess and diagnose disorders and dysfunctions of the neuromusculoskeletal system related to the spine and extremities and provide treatment, rehabilitation and, where possible, prevention of those disorders. This is done without the use of drugs or surgery. Chiropractic manual therapy, primarily utilising manipulation also called adjustment, is one of the safest choices for treating neuromusculoskeletal disorders such as neck and back pain, and headache.
- The primary goal of chiropractic care is directed towards maintaining, improving, restoring or enhancing the health of the patient through the use of the chiropractic adjustment and related therapies. Treatment is often directed to areas of soft tissue injury or decreased movement in the joints of the body, particularly the spine, which can create a reaction in surrounding tissues (ligaments, muscles and nerves) resulting in pain, dysfunction and muscular spasm. Chiropractors are also trained to utilise other therapies and to encourage health promotion through exercise, dietary and nutritional counselling and lifestyle counselling.
- Chiropractic is regulated by statute in all Canadian provinces. Coverage for chiropractic health services by provincial health care programs varies considerably. Patients can access chiropractic care through community-based health care, occupational health care, acute care, primary health care and rehabilitation facilities. More than 4 million Canadians visit a chiropractor each year, receiving approximately 40 million treatments.⁷

- Evidence-based research supports the effectiveness of chiropractic in the treatment of low back pain, neck pain, and headaches. The results of more than 85 studies on manual therapy demonstrate efficacy and cost effectiveness with an admirable safety record for the treatment of neuromusculoskeletal pain syndromes.⁸
- Musculoskeletal conditions, including back and spine disorders, place a tremendous socio-economic burden on the Canadian health care system accounting for an increase in visits made to health care providers and in time lost from the workplace.⁹ In 1994, musculoskeletal disorders cost Canada \$25.6 billion or 3.4 percent of the gross domestic product. Direct and indirect costs were estimated at \$7.5 billion and \$18.1 billion, respectively. The total cost of musculoskeletal disorders ranged from \$19.9 billion to \$30.8 billion with back and spine disorders accounting for \$8.1 billion.¹⁰

Role of Chiropractic in the Canadian Health Care System

Chiropractic health services are an integral part of the continuum of health care in Canada. In some cases, such as neuromusculoskeletal pain, chiropractic may be the primary choice of therapy. In other cases, such as chronic conditions, it may be complementary to the therapy of other health care disciplines. In our view, governments and decision-makers have overlooked regulated non-medical health care practitioners, including chiropractors, and the proven value they can bring to the health care system and to Canadians. An increasing number of Canadians seek out, benefit from, and are satisfied with non-institutional regulated practitioners, other than medical doctors, for their overall health and well-being.^{11,12,13}

During the last 25 years, several formal government studies have found chiropractic care to be both safe and cost-effective.^{14,15,16,17,18} Key findings of these studies revealed^{19,20, 21,22} that:

- musculoskeletal disorders rank first as a reason for consultation with a health professional and rank second as a reason for the use of prescription and non-prescription drugs,
- evidence indicates that chiropractic management of low-back pain is more cost-effective than medical management,
- health care costs would be significantly reduced if more cases of back pain were referred to chiropractors,
- improved access to chiropractic services could result in direct savings in the health care system,
- there is a high degree of patient satisfaction with chiropractic treatment, and
- there is an increase in the utilization rate for chiropractic care.

Further, the studies indicate that investment of \$8.89 per person in Canada in chiropractic health services resulted in the maximum direct cost savings of \$66.64 per person in the health care system.²³

RECOMMENDATIONS

The following recommendations reflect the chiropractic profession's experience in dealing with the health care needs of Canadians. The major theme conveyed throughout our recommendations is the need for effective resource allocation to strengthen health care performance and the health and well-being of Canadians.

A. Develop a framework for improving the delivery of health care services which is both patient centred and reflective of outcomes research.

The delivery of health care services should include evidence-based services offered by regulated practitioners. In developing a framework to achieve this, we recommend that a National Health Professions Council be established. As an advisory group to the federal government, the Council's key objective would be to develop effective strategies for improving the delivery of health care services. In building a better and more comprehensive health care system, the Council would:

- articulate a health vision based on Canadian values of fairness and equity that would allow Canadians to choose their health care practitioner from both traditional and complementary regulated health care professions,
- identify strategies to maintain quality health care services, based on the sharing of information regarding utilization trends, scientific and evidence-based health research, and the identification of gaps in delivery of services,
- develop recommendations and methodologies to enhance Canadians' access to evidence-based health care services,
- co-ordinate efforts that will improve patient health outcomes and provide recommendations on health service planning.

B. Support population-based investment in comprehensive health care delivery for special needs populations such as for the ageing, working poor and Aboriginal populations.

Investment should be provided in proportion to population-based needs. A shift in financial resource allocation would ensure that the current and emerging needs of these populations are addressed, and that current and emerging evidence-based health care treatments are reviewed on an ongoing basis. Investments should be made to establish infrastructures that will effectively monitor patients as they navigate through the health care system to ensure their timely and effective access to health care services.

C. Move towards an effective integrative delivery of health care services.

In the past decade, initiatives to implement comprehensive primary health services have proceeded slowly with many models having been studied. However, none have been implemented. In the meantime the system continues to deteriorate. It is essential that a solution be found which will implement a comprehensive multi-disciplinary primary health care model that encompasses all regulated health care services. The move toward effective integration can be achieved by investing

in the development of an infrastructure that will not only capture health care utilization data but will ensure improved quality of care and the implementation of performance measurement tools. Action is required to reduce pressure on health care costs to ensure the sustainability of and access to the health care system.

D. Develop regulated health care research centres.

We applaud the federal government's commitment to and recognition of the value and benefit of health research in achieving positive health outcomes for Canadians through the establishment of the Canadian Institutes of Health Research (CIHR). We support the recommendation in the fourth report of the Standing Senate Committee on Social Affairs, Science and Technology, entitled "Issues and Options" that the federal share of total spending on research should be one percent of the total health care spending in Canada. Support of health research is of direct benefit to the health of Canadians. Further, we welcome the Federal Finance Minister's announcement in December 2001 to increase research funding to approximately \$400 million over a five-year period for health research organizations such as the CIHR, Canadian universities, the Canadian Institute for Advanced Research and the Canadian Institute for Health Information.

However, we need to develop a more focused and comprehensive health research approach in evaluating and assessing health care treatments and their affects on the health care system. This approach requires the commitment of health care professions and governments to contribute to and facilitate research centres for all regulated health disciplines. For example, a chiropractic centre would conduct research in its own facilities. It would support federal health research initiatives in universities, in health professional schools and in research institutions. It would also foster communication of effective health care modalities.

Research centres would be authoritative sources of information on effective and quality health care for the various health disciplines. The centres could also be used for consensus building in developing quality assurance programs. Although significant investments would be required initially, the benefits would be achieved in the long term in the form of improved patient outcomes and lower costs.

E. Clarify 'medically necessary' services.

The *Canada Health Act* needs to be clarified as it is open to wide interpretation with regard to health care professions other than medicine resulting in practices that not only challenge the rules of fairness but do not reflect efficiencies or the continuing development of the health care system. This is particularly the case where a service is paid for when rendered by a medical doctor who may have no or limited education in the procedure but not paid for when rendered by another regulated health professional with a higher level of skill or expertise in the procedure, e.g. spinal manipulation. We recommend that definitions be broadened under the *Act* to incorporate chiropractic and other regulated health professions based on quality outcome and patient satisfaction measures as supported by research. Secondly, the *Act* should recognize shared responsibilities by the providers and users of the health care system in the funding of health care services. Finally, the *Act* should be flexible to include new and emerging health care technologies and complementary health treatments that have proven to be effective and cost-effective. To

ensure the sustainability of the health care system, adequate funding mechanisms must be in place to guarantee these inclusions in the *Act*.

F. Utilize health promotion and prevention strategies.

Studies have shown that the single most effective way to reduce health care costs is through effective health promotion and prevention programs. Priorities must include understanding the causes of illnesses by examining research and data. This will determine the source of costs and aid in the development and implementation of prevention strategies. The chiropractic profession has embraced health promotion and prevention programs such as promoting awareness of back pain management.

Although there have been attempts to integrate health promotion and wellness through the use of piloted health care programs in primary care settings, there has been minimal activity in the integration of health promotion and disease prevention strategies in the health care system as a whole. A national effort is required to initiate these programs in order to raise awareness of the importance of wellness and health promotion.

CONCLUSION

Numerous discussions and forums have taken place since the 1980s in the search for mechanisms for sustaining a universal health care system. Much time and effort has been spent in evaluating and assessing the effectiveness of the various health care models as well as health treatment modalities only some of which have proven to be effective and cost-effective. Now is the time to act on change and to incorporate effective health care models and treatments into our health care system.

The key focus in preserving, improving and sustaining our health care system is to ensure the health and well-being of Canadians. In doing so, every effort should be made by all levels of government, health care providers, and health policy decision-makers to ensure that Canadians have timely access to the health care services they need and choose, including chiropractic health services. We must continue to ensure the efficiency and effectiveness of our health care system, be more responsive to Canadian health care needs and enhance activities in promoting and implementing quality assurance health programs based on scientific and evidence-based research. It is hoped that the issues presented here will assist the Commission and health policy decision-makers in providing a better understanding of the role of chiropractic in the health care system.

On behalf of the patients to whom we provide health care services, and the members of the chiropractic profession, we appreciate the opportunity to express our views and to provide recommendations. We applaud the Commission's efforts and commitment in seeking solutions to ensure the long-term sustainability of a high quality, universally accessible, publicly administered health care system for all Canadians.

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Efficacy of Chiropractic Treatment

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Conclusion: *Support is consistent for the use of spinal adjustment as a treatment for patients with acute low-back pain and an absence of other signs of lower-limb, nerve-root involvement.*

Lynton GF, Muller R. Chronic Spinal Pain Syndromes: A Clinical Pilot Trial Comparing Acupuncture, a Nonsteroidal Anti-Inflammatory Drug and Spinal Manipulation; Journal of Manipulative and Physiological Therapeutics, 1999; 22:376-81.

Conclusion: *Spinal adjustment, if not contraindicated, results in greater improvement than acupuncture and medicine.*

Meade TW, Dyer S, Browne W, Frank AO. Randomised Comparison of Chiropractic and Hospital Outpatient Management for Low Back Pain: Results from Extended Follow-up; The British Medical Journal, 1995; 311.

Conclusion: *Those treated by chiropractic derive more benefit and long-term satisfaction than those treated by hospitals.*

Manga P, Angus D, Papadopoulos C, Swan W. The Effectiveness and Cost-Effectiveness of Chiropractic Management of Low-Back Pain; OCA/Ontario Ministry of Health, 1993.

Conclusion: *On the evidence, particularly the most scientifically valid clinical studies, spinal adjustment applied by chiropractors is shown to be more effective than alternative treatments for LBP [lower back pain]. Many medical therapies are of questionable validity or are clearly inadequate. There is an overwhelming body of evidence indicating that chiropractic management of LBP is more cost-effective than medical management.*

Bronfort G, Goldsmith CH, Nelson CF, Bolin PD, Anderson AV. Trunk Exercise Combined with Spinal Manipulative or NSAID Therapy for Chronic Low Back Pain: A Randomized, Observer-Blinded Clinical Trial. Journal of Manipulative and Physiological Therapeutics, 1996; 19(9).

Conclusion: *Each of the three therapeutic regimes was associated with similar and clinically important improvement over time, however, there was an increase in adverse reactions with NSAIDs.*

Triano JJ, McGregor M, Hondras MA, Brennan PC. Manipulative Therapy Versus Education Programs in Chronic Low Back Pain, Spine 1995;20(8): 948-955.

Conclusion: *Greater improvement was noted in pain and activity tolerance in the adjustment group. Immediate benefit from pain relief continued to accrue after adjustment, even for the last encounter at the end of the 2-week treatment interval.*

Coxhead CE, et al. Multicenter Trial of Physiotherapy in the Management of Sciatic Symptoms, Lancet 1981; 1:1065-1068.

Conclusion: *Greater reductions in perceived pain were reported by those in the spinal manipulative therapy (SMT) group. Combinations of SMT and exercise produced the optimal results.*

Postacchini F, et al. Efficacy of Various Forms of Conservative Treatment in Low Back Pain, Neuro-Orthop 1988; 6:28-35.

Conclusion: *Spinal manipulative therapy was found to be the superior treatment in acute cases.*

Kirkaldy-Willis WH, Cassidy JD. Spinal Manipulation in the Treatment of Low Back Pain, Canadian Family Physician 1985; 31:535-540.

Conclusion: *Strong support for the value of adjustment in the treatment of chronic lumbar facet and sacroiliac syndrome.*

Endnotes

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 - ²¹ Manga P, et al. *The Case for Reducing Copayments Paid by Patients for Chiropractic Care in Manitoba*. University of Ottawa, 2001.
 - ²² Manga P, et al. *Chiropractic Care in Saskatchewan: The Case for Greater Coverage Under Medicare*. University of Ottawa, 2000.
 - ²³ Calculations are based on the compilation and comparative analysis of the data from the Manga studies as well as Canadian population statistics available from Statistics Canada.