

# Research Regarding the Cost-Effectiveness and Clinical Outcomes of Chiropractic Care



## Summary of Findings

- A patient receiving regular chiropractic care experiences reduced hospital admissions, surgeries, and pharmaceutical costs.
- Studies indicate that greater chiropractic coverage, despite increased visits to a DC, results in significant net savings in both indirect and direct costs.
- Chiropractic care could reduce Medicare costs--both payment for all services and average per claim payment.
- Chiropractic students are better prepared to address musculoskeletal issues than medical students and most doctors.
- Chiropractic patients typically pay less and are more satisfied with their treatment than MD patients.
- Chiropractic care can be used to control health care costs.
- Chiropractic patients reach maximum medical improvement sooner than when treated by a medical doctor.

"My research, conducted over a ten-year period utilizing clinical and cost outcomes data from one of the nations largest insurance underwriters, suggests that the regular utilization of chiropractic could reduce the need for hospitalization, pharmaceutical usage and overall global health care costs by almost 50 percent."

- Richard I. Samat, M.D., President of Alternative Medicine Integration (AMI)

# Examine the Research for Yourself

1. The Alternative Medicine Integration Study. Journal of Manipulative and Physiological Therapeutics, May 2007. Study results available at: [www.jmptonline.org/article/S0161-4754\(07\)00076-0/abstract](http://www.jmptonline.org/article/S0161-4754(07)00076-0/abstract).

- The Alternative Medicine Integration Study was updated in 2007, covering the years of 2003-05. Results of the original study were confirmed.
  - Chiropractic care patients demonstrated:
    - 60% decrease in in-hospital admissions
    - 59% decrease in hospital days
    - 62% decrease in outpatient surgeries and procedures
    - **85% decrease in pharmaceutical costs**
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2. Clinical and Cost Outcomes of an Integrative Medicine IPA. Sarnat, Richard; Winterstein, James. Journal of Manipulative and Physiological Therapeutics 2004; 27: 336-347.

- In 1999, a large Chicago HMO began to utilize doctors of chiropractic (DCs) in a primary care provider role.
  - During the 4-year study, this integrative medical approach, emphasizing a variety of complimentary and alternative medical (CAM) therapies, resulted in lower patient costs and improved clinical outcomes for patients.
  - The patients who went to DCs as their primary care providers had:
    - 43% decrease in hospital admissions
    - 52% reductions in pharmaceutical costs
    - **43% fewer outpatient surgeries and procedures**
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3. Enhanced Chiropractic Coverage Under OHIP (Ontario Health Insurance Plan) as a Means for Reducing Health Care Costs, Attaining Better Health Outcomes, and Achieving Equitable Access To Health Services. Manga, Pran. Report to the Ontario Ministry of Health, 1998.

- Demonstrates deterrence of the use of chiropractic care because it is not covered under OHIP.
  - Authors indicate that greater chiropractic coverage under OHIP would result in a greater number of individuals visiting chiropractors and more frequent visits.
  - Study shows that, despite increased visits to DCs, a net savings in both direct and indirect costs would be experienced.  
**Direct savings for Ontario's health care system would range between \$380-770 million.**
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4. Utilization, Cost, and Effects Of Chiropractic Care On Medicare Program Costs. Muse and Associates. American Chiropractic Association 2001.

- Examines cost, utilization, and effects of chiropractic services on Medicare costs.
  - Compares program payments and service utilization for Medicare beneficiaries who visited DCs and those who visited other types of physicians.
  - Results indicate that chiropractic care could reduce Medicare costs.
  - **Average Medicare payment (all services) for beneficiaries who had chiropractic care: \$4,426.**  
Average Medicare payment (all services) for beneficiaries who had other types of care: \$8,102.
  - The per claim average payment was also lower: \$133 vs. \$210.
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5. Cost of Care for Common Back Pain Conditions Initiated with Chiropractic Doctor vs. Medical Doctor/Doctor of Osteopathy as First Physician: Experience of One Tennessee-Based General Health Insurer. Richard L. Liliendahl, M.D.; Michael D. Finch,



- **Paid cost for episodes of care initiated with a DC were almost 40% less** than episodes initiated with an MD.
  - Even after risk adjusting each patient's cost, episodes of care initiated with a DC were 20% less expensive than those initiated with an MD.
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6. An Examination of Musculoskeletal Cognitive Competency in Chiropractic Interns. Humphreys, B.K.; Sulkowski, A.; McIntyre, K.; Kasiban, M.; Patrick, A.N. Journal of Manipulative Physiological Therapeutics 2007 Jan; 30(1):44-9.

- Prior studies have concluded that musculoskeletal medical education is inadequate; yet, musculoskeletal complaints are one of the most common reasons for seeking physician care.
  - This study compared the results of 154 fourth-year chiropractic interns that completed the Basic Competency Examination in musculoskeletal medicine.
  - Most interns passed the test with results that were considerably better than those of recent medical graduates and physical therapy doctorate students. The chiropractic intern scores were also higher than those of orthopedic staff physicians.
  - **The 51%-64% success rate of chiropractors was almost double the 20%-30% rate of medical students and doctors.**
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7. Costs and Recurrences of Chiropractic and Medical Episodes of Low Back Care. Smith, M.; Stano, M. Journal of Manipulative and Physiological Therapeutics 1997; 20(1): 5-12.

- Compares the health insurance payments and patient utilization patterns of individuals suffering from recurring low back pain who visited DCs or MDs.
  - Insurance payments were higher for medically initiated episodes.
  - **Those who visited chiropractors paid less and were more satisfied with the care given.**
  - The study suggests that chiropractic care should be given careful attention by employers when using gate-keeper strategies.
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8. Chiropractic and Medical Costs of Low Back Care. Stano, M., Smith, M. Medical Care 1996; 34(3): 191-204.

- Compares health insurance payments and patient utilization patterns for episodes of care for common lumbar and low back conditions treated by chiropractic and medical providers (uses 2 years of insurance claims data and examines more than 6,000 patients who had episodes with medical or chiropractic first-contact providers).
  - Total insurance payments were substantially greater for episodes with a medical first-contact provider. **(Mean total payment was \$1,020 with an MD vs. \$518 with a DC.)**
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9. Stano, Miron. The Economic Role of Chiropractic Further Analysis of Relative Insurance Costs for Low Back Care. Journal of the Neuromusculoskeletal System 1995; 3(3): 139-144.

- This retrospective study of 7,000+ patients compared costs of care for common low back conditions when a DC was used versus an MD as the first provider.
- Payments for inpatient procedures were higher for MD-initiated treatment, especially for episodes that lasted longer than one day.
- Outpatient payments were nearly 50% higher for MD-initiated treatments as well.
- **The author concluded that chiropractic care could help to control health care spending.**

10. Lost Productive Time and Cost Due to Common Pain Conditions in the U.S. Workforce. Stewart, W.F.; Ricci, J.A.; Chee, E.; Morganstein, D.; Lipton, R. Journal of the American Medical Association 2003. Nov 12; 290(18): 2443-54.

- Researchers questioned 29,000 respondents regarding the cost implications of reduced performance due to headaches, arthritis, back pain, and other musculoskeletal pain.
- Participants also responded as to whether common pain conditions had caused them to lose concentration, repeat jobs, do nothing, or feel fatigued at work.
- **The cost of lost productive time in the U.S. workforce was found to be \$61 billion, and 76% of that cost was attributed to health-related reduced performance.**
- Data revealed that 1.1% of the workforce were absent one or more days per week because of common pain conditions.

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11. Comparative Analysis of Individuals With and Without Chiropractic Coverage. Legorreta, A.; Metz, D.; Nelson, C.; Ray, S.; Chernicoff, H.; DiNubile, N. Archives of Internal Medicine 2004; 164: 1985-1992.

- A 4-year retrospective review of claims from 1.7 million health plan members were analyzed to determine the cost effects of the inclusion of a chiropractic benefit in an HMO insurance plan.
- Members with a chiropractic benefit had lower overall total annual health care costs.
- Back pain patients with chiropractic coverage also realized lower utilization of plain radiographs, low back surgery, hospitalizations and MRIs.
- **Back pain episode-related costs were 25% lower for those with chiropractic coverage (\$289 vs. \$399).**

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12. Cost Comparisons of Chiropractic Care Versus Other Health Care Provider. Texas Workers' Compensation Report.<sup>1</sup>

“The average cost of [low back injury] claims is \$15,884. **When a worker with a lower back injury receives at least 75% of his/her care from a chiropractor, that cost decreases to \$12,202 and when he/she receives at least 90% of their care from a chiropractor the average cost declines even further to \$7,632.**”

<sup>1</sup> MGT of America, Inc. Chiropractic Treatment of Workers' Compensation Claimants in the State of Texas (Austin, Texas: 2003).

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13. Chiropractic Care of Florida Workers' Compensation Claimants: Access, Costs, and Administrative Outcome Trends from 1994 to 1999. Folsom, B.L.; Holloway, R.W. Topics in Clinical Chiropractic 2002; 9(4): 33-53.

- Study revealed that average total cost for low-back cases treated medically was \$16,998, while chiropractic care was only \$7,309.
- Patients treated primarily by chiropractors were found to **reach maximum medical improvement almost 28 days sooner** than if treated by a medical doctor.
- Considerable cost savings and more efficient claims resolution may be possible with greater involvement of chiropractic treatment in specific low back cases and other specific musculoskeletal cases.

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14. FYI-IPA. Gemmell, H.A., Hayes, B.M. Patient Satisfaction with Chiropractic Physicians in an Independent Physicians Association. Journal of Manipulative and Physiological Therapeutics 2001; 24(9): 556-559.

- In this study, 150 chiropractic patients were surveyed.
- Chiropractic care received excellent remarks by percentage, in the following categories:
  - Time to get an appointment – 85%
  - Convenience of office - 58%
  - Access to office by phone - 77%
  - Length of wait - 76%
  - Time spent with provider - 74%
  - Explanation of treatment - 73%
  - Skill of provider - 83%
  - Personal manner of the chiropractor - 92%
  - Overall visit - 83%



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