

**Comparative Analysis of Individuals With and Without Chiropractic Coverage
Patient Characteristics, Utilization, and Costs**

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FROM ABSTRACT:

Background: Back pain accounts for more than \$100 billion in annual US health care costs and is the second leading cause of physician visits and hospitalizations.

This study ascertains the effect of systematic access to chiropractic care on the overall and neuromusculoskeletal specific consumption of health care resources within a large managed-care system.

Methods: A 4-year retrospective claims data analysis comparing more than 700,000 health plan members with an additional chiropractic coverage benefit and 1 million members of the same health plan without the chiropractic benefit.

Results: Members with chiropractic insurance coverage, compared with those without coverage, had lower annual total health care expenditures (\$1463 vs \$1671 per member per year).

Having chiropractic coverage was associated with a 1.6% decrease in total annual health care costs at the health plan level.

Back pain patients with chiropractic coverage, compared with those without coverage, had lower utilization (per 1000 episodes) of plain radiographs (17.5 vs 22.7), low back surgery (3.3 vs 4.8), hospitalizations (9.3 vs 15.6), and magnetic resonance imaging (43.2 vs 68.9).

Patients with chiropractic coverage, compared with those without coverage, also had lower average back pain episode-related costs (\$289 vs \$399).

Conclusions: Access to managed chiropractic care may reduce overall health care expenditures through several effects, including (1) positive risk selection; (2) substitution of chiropractic for traditional medical care, particularly for spine conditions; (3) more conservative, less invasive treatment profiles; and (4) lower health service costs associated with managed chiropractic care.

Systematic access to managed chiropractic care not only may prove to be clinically beneficial but also may reduce overall health care costs.

THESE AUTHORS ALSO NOTE:

"In the US, back pain is the second leading cause of physician visits and is second only to childbirth for hospitalizations."

Back pain is "the most prevalent chronic medical problem, the number one cause of long-term disability, and the second most common cause of restricted activity and use of prescription and nonprescription drugs."

There is likely to be more individuals with back problems as "the average age of the US population continues to increase."

EFFICACY AND SAFETY OF CHIROPRACTIC CARE FOR BACK PAIN

"A comprehensive review of the literature evaluating the efficacy of chiropractic treatments for low back pain and other conditions reported that randomized control trials 'show spinal manipulation to be better, and no trial finds it to be significantly worse, than conventional treatment.'" [Kaptchuk TJ, Eisenberg DM. Chiropractic: origins, controversies, and contributions. Arch Intern Med. 1998;158:2215-2224].

"Chiropractic treatment is associated with a relatively low risk level, on par with conventional medical treatments" for complications.

"Comprehensive overview of the literature reveals that it is essentially unanimous in reporting that chiropractic care is associated with significantly higher patient satisfaction compared with patients who receive conventional treatments."

COST EFFECTIVENESS OF CHIROPRACTIC CARE

Several studies (mostly workers' compensation studies) have shown the cost-effectiveness of chiropractic compared with medical management for neuromuscular conditions in a review of current literature.

A 1996 cost comparison study, higher total costs (30% to 217% higher) and higher outpatient costs (27% to 94% higher) of medical treatment relative to chiropractic treatment. [●●●●#23]

ACCESS TO CHIROPRACTIC CARE

"Chiropractors now represent the third largest segment of health care practitioners in the United States, with 50,000 practitioners in 2000 according to the Bureau of Labor Statistics."

"21 million to 28 million people now receive chiropractic services each year, with approximately 192 million annual visits to DCs: between 1990 and 1997, chiropractic use increased from 10% to 11%."

"With growing public demand, the profession is also expected to increase 21% to 35% by 2008."

"Chiropractic insurance coverage is now being offered to most American workers who are covered by health insurance and is increasingly being offered in all health plan types."

METHODS STUDY POPULATION

In this study, patients had direct access to a DC without the need of a physician referral.

The patient co-pay for a chiropractic office visit was the same as it would be in a medical clinic.

The chiropractic benefit allowed for a maximum of 40 office visits to a DC per year."

STUDY DESIGN

These authors reviewed categories of NMS conditions, including disorders of the neck, lower back, thoracic spine and rib disorders, headache, upper extremity and lower extremity disorders. The severity of neck and lower back problems was designated by complicated or uncomplicated conditions.

"Any claims for back surgery were excluded from the analysis, because such cases are likely to have complications for which chiropractic care would not be appropriate."

"Claims separated by 45 days or more were considered separate episodes."

OVERALL EXPENDITURES AND UTILIZATION

The health care expenditures considered for this study included inpatient and outpatient services, plain radiographs, and magnetic resonance (MR) images,

"Prescription claims and physical therapy claims were not included during this phase of the ongoing study, and therefore pharmacy and physical therapy costs were not included in health care costs."

[This is extremely important: these authors excluded the costs of drugs and physical therapy when comparing chiropractic to medical care; and we were still the best way to go. Potentially, the costs of drugs and physical therapy are the most expensive component of medical care, and again, these costs were excluded from the comparison.]

RESULTS

"Year 2000 claims for 707,690 health plan members with chiropractic coverage and 1,001,995 members without chiropractic coverage were compared."

"The per-member-per-year (PMPY) cost of members with chiropractic coverage was \$1,463, which was \$208 lower than the PMPY cost of members without the coverage (\$1,671)."

"This translates to a 12% reduction in annual costs incurred by the managed care organization on members with chiropractic coverage."

"The 141,616 patients with NMS conditions who had chiropractic coverage were also compared to 189,923 NMS patients without chiropractic coverage." "The PMPY cost of NMS patients with chiropractic coverage was \$2345, which was \$361 lower than the PMPY cost of NMS patients without the coverage (\$2706)."

"This translates to a 13% reduction in annual costs incurred by the health plan on NMS patients with chiropractic coverage."

"Annual per capita hospital cost for NMS patients with chiropractic coverage (\$1224) was \$210 lower or 15% than that for NMS patients without chiropractic coverage." "The annual per capita ambulatory cost for NMS patients with chiropractic coverage (\$1121) was 12% lower than the corresponding cost for NMS patients without chiropractic coverage (\$1272)."

"The annual per capita cost of providing chiropractic care was \$31, which amounted to only 1% of the total dollar value of resources consumed (\$2376) by NMS patients between the 2 cohorts."

"Patients with neuromusculoskeletal conditions who had chiropractic coverage were associated with \$330 lower per-member-per-year (PMPY) total health care expenditures for the year 2000. The lower cost is derived from both lower hospital cost by \$210 and lower ambulatory cost by \$151."

"The regression results indicate that the presence of chiropractic insurance coverage was systematically associated with an approximately 1.6% lower average total health care cost of members, after controlling for differences in age, sex, and the number of comorbidities."

"The average cost per back pain episode for patients with chiropractic coverage was \$289, which was \$110 or 28% lower than for back pain patients without chiropractic coverage."

"Aggregating episodes for each patient during the 4-year period, the average cost of back pain treatment for patients with chiropractic coverage was \$522, which was \$45 or 8% lower than the corresponding back pain treatment cost for patients without chiropractic coverage."

"Utilization rates for back pain episodes indicate significantly lower utilization of resources across all major high-cost areas for NMS patients with chiropractic insurance coverage compared with those without."

"Back pain patients with chiropractic coverage had fewer inpatient stays than did those without chiropractic coverage (9.3 vs 15.6 stays per 1000 patients)."

"The MR image rate was also lower for back pain patients with chiropractic coverage compared with those without chiropractic coverage (43.2 vs 68.9 MR images per 1000 patients)."

"The rate of lower back surgery among patients with chiropractic coverage was lower as well (3.3 vs 4.8 surgical procedures per 1000 patients)."

"Back pain patients with chiropractic coverage also received fewer radiographs (17.5 vs 22.7 per 1000 patients) than did back pain patients without chiropractic coverage."

COMMENT BY AUTHORS

"There is growing evidence for the low risks associated with chiropractic spinal manipulation in most cases and favorable evidence for its effectiveness in treating low back pain."

"Patients treated for back pain by DCs tend to be more satisfied than patients treated by MDs."

"Despite this evidence for safety, effectiveness, and growing public demand, health insurance coverage for chiropractic care continues to remain restricted, relative to other health services, particularly in the managed care sector."

"Chiropractic care is becoming increasingly prevalent in the American health care system. The increasing acceptance of chiropractic care as a source of comprehensive complementary care for NMS problems is reflected in that the chiropractic field is the fastest growing among all doctoral-level health professions."

"Potential employees, particularly those who maintain a healthier lifestyle may have been more likely to seek employment in companies that offer benefits covering complementary care (eg, chiropractic or acupuncture) that can be perceived as less aggressive treatment modalities." **[Interesting]**

"This study found that members with chiropractic coverage had a 12% lower annual medical care cost, not adjusting for member risk characteristics."

"After controlling for the cost-saving effects associated with favorable demographic and medical risk factors, the regression analysis found a statistically significant

1.6% reduction in total medical care costs that can be isolated to the presence of chiropractic coverage.”

“Most of this 1.6% reduction in the plan’s total medical costs is likely derived from the 13% reduction in the total medical costs observed for the subset of members with NMS conditions who also had chiropractic coverage.”

“In our study population of 0.7 million members who had chiropractic coverage in the medical plan, we estimated an annual reduction of approximately \$16 million as a result of lower utilization of high-cost items.” “This is a conservative estimate of the cost savings for the plan that can be associated with members in the medical plan using their supplementary benefits to seek chiropractic treatment of their NMS problems.” **[WOW]**

“The estimated cost saving appears to more than offset the amount spent to cover the associated costs of the chiropractic benefit.” **[Very Important]**

“Our analysis found that patients with chiropractic coverage had significantly lower rates of use of resource-intensive technologies, such as x-ray examinations, MR image, and surgery, and lower use of more expensive patient care settings, such as inpatient care.”

“This is reflected in the significantly lower cost, at both the episode level and the patient level, of providing care for back pain.”

“The substitution of chiropractic for physician care evident from the shift in the case distribution between physicians and DCs when chiropractic coverage was present also contributed to the conservation of health care resources.”

“As the average age of the American population continues to increase in the next decade, the safety and appropriateness of chiropractic care for elderly patients will need to be more thoroughly evaluated.” **[Absurd]**

The substitution of chiropractic utilization for medical care is central to the issue of providing cost-effective care for NMS conditions in a managed care environment, since the provision of chiropractic benefits as supplementary insurance raises the possibility of induced demand for medically unnecessary care.” **[More Absurdity]**

“This study found evidence that a substantial portion of the chiropractic care sought by the members with insurance coverage was more often substituted for medical care rather than add-on care.” **[I like this]**

“Questions continue to remain regarding the effectiveness of chiropractic care relative to the cost of care and quality of the health care received.” **[More Absurdity]**

KEY POINTS FROM DAN MURPHY

- 1) Back pain accounts for more than \$100 billion in annual US health care costs and is the second leading cause of physician visits and hospitalizations.
- 2) In the US, back pain is the second leading cause of physician visits and is second only to childbirth for hospitalizations.
- 3) Back pain is the most prevalent chronic medical problem, the number one cause of long-term disability, and the second most common cause of restricted activity and use of prescription and nonprescription drugs.
- 4) In this study, chiropractic resulted in:
 - A)) Lower annual total health care expenditures.
 - B)) A 1.6% decrease in total annual health care costs.
 - C)) Reduced use of x-rays, low back surgery, hospitalizations, and MRIs.
 - D)) Lower average back pain episode-related costs.
 - E)) A \$330 lower per-member-per-year total health care expenditures for the year 2000, derived from both lower hospital cost by \$210 and lower ambulatory cost by \$151.
- 5) Chiropractic reduces overall health care expenditures because it substitutes for traditional medical care, and is more conservative, less invasive than medical alternatives.
- 6) Chiropractic treatments for low back pain and other conditions are better than conventional medical treatments.
- 7) Chiropractic treatment is associated with a relatively low risk for complications as compared to conventional medical treatments.
- 8) It is unanimous in reporting that chiropractic care has significant higher patient satisfaction compared with patients who receive medical treatments.
- 9) Chiropractic is the third largest segment of health care practitioners in the United States with 50,000 practitioners.
- 10) 21 million to 28 million people now receive chiropractic services each year.
- 11) There are approximately 192 million annual visits to chiropractors.
- 12) Between 1990 and 1997, chiropractic use increased from 10% to 11% of the population.
- 13) Chiropractic is expected to increase 21% to 35% by 2008.

- 14) Chiropractic insurance coverage is now being offered to most American workers who are covered by health insurance and is increasingly being offered in all health plan types.
- 15) This study excluded the costs of drugs and physical therapy when comparing chiropractic to medical care; and we were still the best way to go. This is important because the costs of drugs and physical therapy can be the most expensive component of medical care.
- 16) Despite this evidence for safety, effectiveness, and growing public demand, health insurance coverage for chiropractic care continues to remain restricted.
- 17) Chiropractic care is becoming increasingly prevalent in the American health care system.
- 18) Chiropractic is the fastest growing among all doctoral-level health professions.
- 19) Employees who maintain a healthier lifestyle may be more likely to seek employment in companies that offer benefits covering complementary care like chiropractic or acupuncture.
- 20) This study found that members with chiropractic coverage had a 12% lower annual medical care cost.
- 21) The cost saving afforded by chiropractic more than offset the amount spent to cover the associated costs of the chiropractic the benefit.
- 22) A substantial portion of the chiropractic care sought by the members with insurance coverage was more often substituted for medical care rather than add-on care.

COMMENT BY DAN MURPHY

I liked this study. I felt it was very important to chiropractic, and very complementary to chiropractic.

However, I conducted an informal poll of acquaintance chiropractors that are providers for this managed healthcare plan. Without exception, the central theme of responses centered around the concept that the AHAP "sucked" and that they were contemplating dropping out of the plan or they had already dropped out of the plan. The consensus was that the reimbursement was below cost, the paperwork was excessive and that the reviewers were intrusive and unreasonable.

The September/October 2004 issue of the California Chiropractic Association Journal, pg. 11, notes they are suing ASHP "on behalf of the general public alleging fraudulent, unlawful and unfair business practices..."