

Cost-effectiveness and utilization of chiropractic care

This page only includes articles published in the last 5 years.

Cost effectiveness

Low back and/or neck pain

Combined physical and psychological treatments, medical yoga, information and education programs, spinal manipulation and acupuncture are likely to be cost-effective options for low back pain (LBP).¹

A 2016 cohort study found that workers who first saw a chiropractor experienced shorter first episodes of 100% wage compensation compared with those who first saw a medical physician and workers who first saw a physiotherapist experienced a longer episode of 100% compensation. The odds of having a second episode of financial compensation were higher among the workers who first consulted a physiotherapist rather than a physician. Chiropractic patients experienced the shortest duration of compensation, and physiotherapy patients experience the longest.²

A 2016 retrospective claims review found that entering care for LBP via chiropractic was associated with decreased risk for advanced imaging or a surgeon visit but increased episode of care duration. Entry in physical therapy decreased risk of radiographs (OR = 0.39, P = 0.017) and no patient entering in physical therapy had surgery.³

A 2016 systematic review found that structured education is cost-effective for whiplash-associated disorder and that for neck pain and associated disorders, advice, exercise and multimodal care including manual therapy are cost effective.⁴

A 2015 analysis of the National Health Interview Survey indicated that adults in the United States spent \$14.9 billion on complementary health approaches to manage painful conditions including back pain (\$8.7 billion).⁵

A 2015 cross-sectional study of 17.7 million older adults enrolled in Medicare indicated that greater availability of chiropractic care in some areas may be offsetting PCP services for back and/or neck pain among older adults.⁶

A 2015 systematic review concluded that "although cost comparison studies suggest that health care costs were generally lower among patients whose spine pain was managed with chiropractic care, the studies reviewed had many methodological limitations." ⁷

A 2014 randomized controlled trial examined "costs and benefits of different doses of spinal manipulative therapy (SMT) in patients with chronic LBP." It concluded that "a dose of 12 SMT sessions yielded a modest benefit in pain-free and disability-free days. Care of chronic LBP with SMT did not increase the costs of treatment plus lost productivity."⁸

A retrospective claims analysis found that Tennessee Blue Cross/Blue Shield beneficiaries initiating care with chiropractic physicians had lower treatment costs for LBP episodes than those initiating care with medical physicians.

A prospective cohort study of Washington state workers found that 1.5% of workers who saw a chiropractor first for work-related back pain review later had surgery, compared to 42.7% of those who first saw a surgeon.⁹

Multiple conditions

A 2016 retrospective cohort study found that older patients with multiple comorbid conditions who used only chiropractic manipulative therapy (CMT) during their chronic LBP episodes had lower overall costs of care, shorter episodes, and lower cost of care per episode day than patients in the other treatment groups. Further, costs of care for the episode and per episode day were lower for patients who used a combination of CMT and conventional medical care than for patients who did not use any CMT. These findings support initial CMT use in the treatment of, and possibly broader chiropractic management of, older multiply-comorbid chronic LBP patients.¹⁰

A 2016 study reported on the Centers for Medicaid and Medicare Services' (CMS) demonstration project of expanded Medicare coverage for chiropractic services for neuromusculoskeletal (NMS) conditions affecting the back, limbs, neck, or head in 2005-7 in parts of Illinois, Iowa, and Virginia and the entire states of Maine and New Mexico. Expanded coverage increased Medicare expenditures by \$50 million or 28.5% in users of chiropractic services and by \$114 million or 10.4% in all patients treated for NMS conditions in demonstration areas during the two-year period. However, they did not assess possible decreases in costs to other insurers, out-of-pocket payments by patients, the need for and costs of pain medications, or longer term clinical benefits such as avoidance of orthopedic surgical procedures beyond the two-year period of the demonstration. Thus no firm conclusions could be made.¹¹

A 2014 systematic review found "some economic advantage of manual therapy relative to other interventions used for the management of musculoskeletal conditions, indicating that some manual therapy techniques may be more cost-effective than usual GP care, spinal stabilization, GP advice, advice to remain active, or brief pain management for improving low back and shoulder pain/disability. However, at present, there is a paucity of evidence on the cost-effectiveness and/or cost-utility evaluations for manual therapy interventions." 12

Musculoskeletal chest pain

A 2016 randomized controlled trial found that primary sector chiropractic care was more cost-effective than self-management in patients with musculoskeletal chest pain.¹³

Utilization

Use of chiropractic in the Veterans Administration

A 2016 study found that the number of patients From October 1, 2004, through September 30, 2015, the annual number of patients seen in VA chiropractic clinics from 2004 to 2015 increased 822%. The total number of VA chiropractic clinics grew from 27

to 65 (9.4% annually). The typical VA chiropractor employee is a 46 year-old man, has worked in the VA for 4.5 years, and receives annual compensation of \$97,860. VA also purchased care from private sector chiropractors starting in 2000, growing to 159,533 chiropractic visits for 194,35 patients at a cost of \$11,155,654 annually.¹⁴

A 2015 secondary analysis of a representative Gallop Poll sample found that 13.7% of U.S. adults reported that they had used chiropractic within the last 12 months. It concluded that "U.S. adults often use chiropractic care, generally regard DCs favorably, and largely perceive that chiropractic care is safe."¹⁵

A 2013 analysis of Medicare data through 2008 showed that chiropractic claims represented less than one tenth of one percent of Medicare costs. Chiropractic claims peaked in 2005 and then declined through 2008, contrasting to an overall increase in Medicare costs. ¹⁶

References

- 1. Andronis L, Kinghorn P, Qiao S, Whitehurst DG, Durrell S, McLeod H. Cost-effectiveness of non-invasive and non-pharmacological interventions for low back pain: a systematic literature review. *Appl Health Econ Health Policy*. 2016. https://www.ncbi.nlm.nih.gov/pubmed/27550240
- 2. Blanchette MA, Rivard M, Dionne CE, Hogg-Johnson S, Steenstra I. Association between the type of first healthcare provider and the duration of financial compensation for occupational back pain. *J Occup Rehabil.* 2016 Sep 17. https://www.ncbi.nlm.nih.gov/pubmed/27638518
- 3. Fritz JM, Kim J, Dorius J. Importance of the type of provider seen to begin health care for a new episode low back pain: associations with future utilization and costs. *J Eval Clin Pract*. 2016;22(2):247-252. http://onlinelibrary.wiley.com/doi/10.1111/jep.12464/full
- 4. van der Velde G, Yu H, Paulden M, et al. Which interventions are cost-effective for the management of whiplash-associated and neck pain-associated disorders? A systematic review of the health economic literature by the Ontario Protocol for Traffic Injury Management (OPTIMa) Collaboration. *Spine J.* 2016;16(12):1582-1597. https://www.ncbi.nlm.nih.gov/pubmed/26631759
- 5. Nahin RL, Stussman BJ, Herman PM. Out-of-pocket expenditures on complementary health approaches associated with painful health conditions in a nationally representative adult sample. *J Pain.* 2015;16(11):1147-1162. http://www.ncbi.nlm.nih.gov/pubmed/26320946
- 6. Davis MA, Yakusheva O, Gottlieb DJ, Bynum JP. Regional supply of chiropractic care and visits to primary care physicians for back and neck pain. *J Am Board Fam Med.* 2015;28(4):481-490.

 FREE FULL TEXT http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4512163/
- 7. Dagenais S, Brady O, Haldeman S, Manga P. A systematic review comparing the costs of chiropractic care to other interventions for spine pain in the United States. *BMC Health Serv Res.* 2015;15:474. FREE FULL TEXT http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4615617/
- 8. Vavrek DA, Sharma R, Haas M. Cost analysis related to dose-response of spinal manipulative therapy for chronic low back pain: Outcomes from a randomized controlled trial [randomized controlled trial]. *J Manipulative Physiol Ther.* 2014;37(5):300-311. FREE FULL TEXT http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4095804/
- Keeney BJ, Fulton-Kehoe D, Turner JA, Wickizer TM, Chan KC, Franklin GM. Early predictors of lumbar spine surgery after occupational back injury: results from a prospective study of workers in Washington State. Spine (Phila Pa 1976). 2013;38(11):953-964.
 FREE FULL TEXT http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4258106/
- 10. Weeks WB, Leininger B, Whedon JM, et al. The association between use of chiropractic care and costs of care among older Medicare patients with chronic low back pain and multiple comorbidities. *J Manipulative Physiol Ther.* 2016;39(2):63–75;e62. https://www.ncbi.nlm.nih.gov/pubmed/26907615

- 11. Stason WB, Ritter GA, Martin T, Prottas J, Tompkins C, Shepard DS. Effects of expanded coverage for chiropractic services on Medicare costs in a CMS demonstration. *PLoS One*. 2016;11(2):e0147959. FREE FULL TEXT https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4771157/
- 12. Tsertsvadze A, Clar C, Court R, Clarke A, Mistry H, Sutcliffe P. Cost-effectiveness of manual therapy for the management of musculoskeletal conditions: A systematic review and narrative synthesis of evidence from randomized controlled trials [review]. *J Manipulative Physiol Ther.* 2014;37(6):343-362. FREE FULL TEXT http://www.jmptonline.org/article/S0161-4754(14)00087-6/abstract
- Stochkendahl MJ, Sorensen J, Vach W, Christensen HW, Hoilund-Carlsen PF, Hartvigsen J. Costeffectiveness of chiropractic care versus self-management in patients with musculoskeletal chest
 pain. Open heart. 2016;3(1):e000334. FREE FULL TEXT
 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4860847/
- 14. Lisi AJ, Brandt CA. Trends in the use and characteristics of chiropractic services in the Department of Veterans Affairs. *J Manipulative Physiol Ther.* 2016;39(5):381-386.
- 15. Weeks WB, Goertz CM, Meeker WC, Marchiori DM. Public perceptions of Doctors of Chiropractic: results of a national survey and examination of variation according to eespondents' likelihood to use chiropractic, experience with chiropractic, and chiropractic supply in local health care Markets. *J Manipulative Physiol Ther.* 2015;38(8):533-544. FREE FULL TEXT http://www.jmptonline.org/article/S0161-4754(15)00124-4/abstract
- Whedon JM, Song Y, Davis MA. Trends in the use and cost of chiropractic spinal manipulation under Medicare Part B. Spine J. 2013;13(11):1449-1454. FREE FULL TEXT http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4130205/