

## The Value of Naturopathic Medicine in California: Cost Effective Primary Care for Disease Prevention and Health Improvement

Naturopathic medicine is a **whole medical system** defined by its philosophy that includes health promotion, disease prevention and health care education for patient empowerment. Studies from Washington State show naturopathic medicine **costs insurers and consumers less** than conventional care.<sup>1</sup> Patients utilizing naturopathic medicine **report much higher patient satisfaction and health improvement**, as compared to conventional care.<sup>2</sup> Naturopathic Doctors (NDs) are already providing cost-effective primary care – inclusion in essential benefits packages will expand access and help solve the current California health care shortage crisis.<sup>3</sup>

### What Does Naturopathic Medicine Cost?

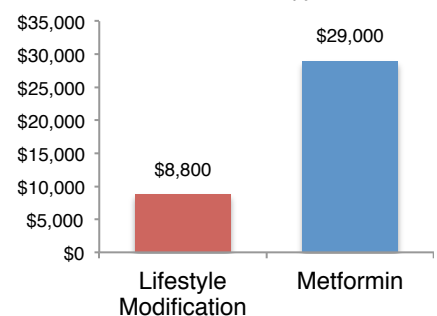
#### High Quality Care at Low Cost

- Analysis on the impact of Washington State's 1996 Every Category of Provider law found that the "impact [of including naturopathic doctors] on premiums was modest – **generally less than 2%.**"<sup>4</sup>
- After 6 years of insurance coverage of ND Primary Care Providers (PCPs) in WA state, visits to NDs made up just 1% of all outpatient provider visits but accounted for **only 0.3% of the dollars paid out by insurers.**<sup>5</sup>
- Naturopathic doctors delivering the same Medicaid services in Oregon are 57.5% more cost effective than MD/DO/NP PCPs providing the same services.<sup>6</sup>
- A Washington study found that 67.7% of patients who receive naturopathic care do not receive concurrent care from an MD/DO: **naturopathic care is not "add-on" medical care in the majority of cases.**<sup>7</sup>
- Evidence shows that Naturopathic doctors treated 7 of the top 10 most expensive health conditions **more cost-effectively** than MDs or other conventional providers.<sup>8</sup>

### Naturopathic Medicine for the Prevention of Type 2 Diabetes

- The Diabetes Prevention Trial demonstrated that the prevention of type 2 diabetes by diet and lifestyle therapies was **more cost effective than pharmaceutical therapy** in high-risk patients.<sup>9</sup>
- For each quality-adjusted life years (QALY) saved, a lifestyle modification program costs \$8,800 while metformin therapy costs \$29,000. Additionally, the lifestyle modification program was shown to be **cost-effective in all adults**, while metformin was not cost-effective after age 65.<sup>9</sup>
- Naturopathic doctors are experts in guideline-directed, evidence-based lifestyle modification for diabetes. Four studies to date have demonstrated improvements in blood sugar control among patients working with NDs. Additional benefits of the treatment included weight loss, lower blood pressure, and less depression.<sup>10</sup>

Comparative Cost of Treating Type 2 Diabetes: Lifestyle Modification vs. Pharmaceutical Therapy<sup>9</sup>



<sup>1</sup> Tais S, Oberg E. (2013) The Economic Evaluation of Complementary and Alternative Medicine. Natural Medicine Journal.

<sup>2</sup> Stewart, D., Weeks, J., & Bent, S. (2001). Utilization, patient satisfaction, and cost implications of acupuncture, massage, and naturopathic medicine offered as covered health benefits: a comparison of two delivery models. *Alternative therapies in health and medicine*, 7(4), 66.

<sup>3</sup> Michael S. Goldstein, PhD, and John Weeks, (2013). 'Naturopathic Physician Chapter'. In: e.g. Tolkien, J.R.R. (ed), *Meeting the Nation's Primary Care Needs*. 1st ed. Seattle, WA: Academic Consortium for Complementary and Alternative Health Care. pp.e.g. (32-48).

<sup>4</sup> Watts CA, Lafferty WE, Baden AC. The effect of mandating complementary and alternative medicine services on insurance benefits in Washington state. *J Altern Complement Med*. 2004; 10:1001-1008.

<sup>5</sup> Lafferty, et al. Insurance Coverage and Subsequent Utilization of Complementary and Alternative Medicine Providers. *Journal of Managed Care*. July 2006.

<sup>6</sup> *The Cost Effectiveness of Naturopathic Delivery of Oregon Medicaid Services Statistics provided by Leslie Hendrickson*, Office of Medical Assistance. Feb 11, 1991

<sup>7</sup> Cherkin DC, Deyo RA, Sherman KJ et al. Characteristics of visits to licensed acupuncturists, chiropractors, massage therapists, and naturopathic physicians. *J Am Board Fam Pract*. 2002; 15:463-472.

<sup>8</sup> Henny, Geoffrey C., Alternative Health Care Consultant, King County Medical Blue Shield (KCMB), *Phase I Final Report: Alternative Healthcare Project*, 1995

<sup>9</sup> Herman WH et al.; Diabetes Prevention Program Research Group. The cost-effectiveness of lifestyle modification or metformin in preventing type 2 diabetes in adults with impaired glucose tolerance. *Ann Intern Med*. 2005 Mar1; 142(5):323-32.

<sup>10</sup> Bradley RD, Oberg EB. Naturopathic Medicine and Diabetes: a Retrospective from an Academic Clinic. *Alternative Medicine Review* 2006; 11(1):30-39

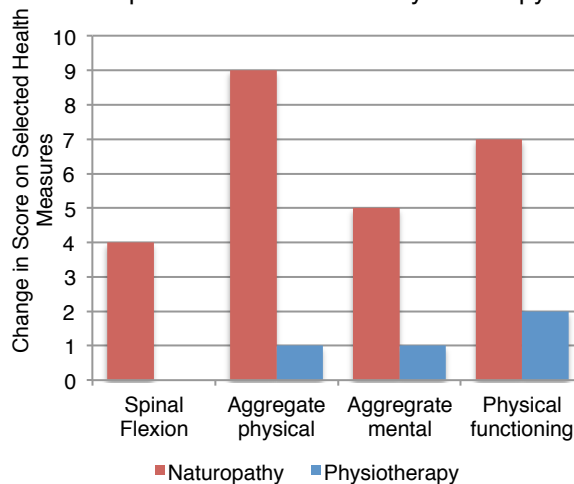
## Naturopathic Medicine Reduces Cardiovascular Disease (CVD) Risk

- CVD is the leading cause of death in the United States and is associated with high direct medical costs and indirect costs, e.g. loss of productivity.<sup>11</sup>
- A recent study has shown that one year of care under the supervision of a naturopathic doctor resulted in a 3.07% reduction in 10-year CVD event risk compared to patients receiving only conventional care.<sup>12</sup>
- The same study found that after one year, naturopathic patients were 16.9% less likely to have developed metabolic syndrome than conventional care patients.<sup>12</sup>
- A university meta-review of studies on the impact of diet on cardiovascular health concluded that “changes in dietary habits are generally cost-effective, and the means are widely available. Through heightened attention of health professionals and the public to current data on appropriate nutritional practices, better measures can be adopted to help reduce cardiovascular risk at a public health level.”<sup>13</sup>

## Naturopathic Medicine Improves Lower Back Pain and Other Musculoskeletal Complaints, Getting People Back to Work at Lower Costs

- Ineffective pain care cost U.S. employers \$297.4 to \$335.5 billion in lost productivity in 2010.<sup>14</sup>
- A randomized controlled trial found significant decreases in pain and increases in range of motion in workers who received naturopathic care versus usual care. Quality of life also improved ( $p < 0.0001$ ).<sup>15</sup>
- A randomized controlled trial of rotator cuff tendinitis found reduced pain ( $p < 0.001$ ) and less disability ( $p = 0.0002$ ) among postal workers treated by naturopathic doctors compared to usual care.<sup>16</sup>
- From the perspective of the employer, the inclusion of naturopathic care in an essential benefits package could **avoid \$172 per day of lost productivity** at a cost \$154 per absentee day avoided, equal to a return on investment (ROI) of 7.9%.<sup>17</sup>
- Compared to conventional physiotherapy, naturopathic care was associated with improvements in symptoms and quality of life, as well as **a decrease in costs of \$1,212 per study participant**. Workplace absenteeism was also **reduced by 6.7 days per year**.<sup>17</sup>

Change in Health Measurements After 12 Weeks, Naturopathic Treatment vs. Physiotherapy<sup>14</sup>



<sup>11</sup> Leading cause of death. Centers for Disease Control and Prevention, 2007. Online: <http://www.cdc.gov/nchs/fastats/heart.htm>

<sup>12</sup> Seely, Dugald, et al. "Naturopathic medicine for the prevention of cardiovascular disease: a randomized clinical trial." *Canadian Medical Association Journal* 185.9 (2013): E409-E416.

<sup>13</sup> Zarraga, Ignatius GE, and Ernst R. Schwarz. "Impact of dietary patterns and interventions on cardiovascular health." *Circulation* 114.9 (2006): 961-973.

<sup>14</sup> Institute of Medicine of the National Academies Report. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*, 2011. The National Academies Press, Washington DC. (page 260). [http://books.nap.edu/openbook.php?record\\_id=13172&page=260](http://books.nap.edu/openbook.php?record_id=13172&page=260)

<sup>15</sup> Szczurko, Orest, et al. "Naturopathic care for chronic low back pain: a randomized trial." *PLoS One* 2.9 (2007): e919.

<sup>16</sup> Naturopathic Treatment of Rotator Cuff Tendinitis Among Canadian Postal Workers: A Randomized Controlled Trial. *Arthritis & Rheumatism (Arthritis Care & Research)*, Vol. 61, No. 8, August 15, 2009, pp 1037-1045.

<sup>17</sup> Herman PM, Szczurko O, Cooley K, Mills EJ. Cost-effectiveness of naturopathic care for chronic low back pain. *Altern Ther Health Med* 2008; 14(2): 32-39.