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

Executive Summary

This document answers questions about the efficacy, cost-effectiveness, and safety of naturopathic medicine when it comes to health promotion and disease prevention based on research from across the country.

Naturopathic medicine is a medical system defined by its philosophy of treating the “cause of disease” and not just alleviating symptoms. It includes health promotion, disease prevention and health care education for patient empowerment. Some of the tools Naturopathic Doctors (NDs) utilize include lab testing (especially looking for unhealthy trends to intervene early), dietary modifications, nutrients, herbal therapies, supplements and lifestyle changes to support patients with health.

In 2013 and 2014, the U.S. Senate unanimously passed Resolutions stating that naturopathic doctors are licensed in 20 States and territories; that NDs focus on patient-centered care and the prevention and treatment of chronic disease; that naturopathic medicine is a safe, effective, and affordable means of health care; and that licensure of NDs can help address the shortage of primary care physicians in the United States, while also providing consumers with more choice in health care.

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THE PROBLEM

Chronic Disease is overwhelming the medical system and our economy.

According to the Center for Disease Control

- Chronic diseases cause 7 in 10 deaths each year in the United States.
- More than 75% of health care costs are due to chronic preventable conditions.
- About 133 million Americans—nearly 1 in 2 adults—live with at least one chronic illness.
- Approximately one-fourth of persons living with a chronic illness experience significant limitations in daily activities.


RTI International, the Agency for Healthcare Research and Quality, and the U.S. Centers for Disease Control & Prevention in 2009 found:

- Obesity costs the US $147 billion annually.
- Annual medical expenditures attributable to obesity have doubled in less than a decade.
- 58 Million Overweight; 40 Million Obese in the US
- Eight out of 10 over 25 year olds are Overweight
- 76% increase in Type II diabetes in adults 30-40 since 1990 and 80% Obesity Related Diseases
- 70% of Cardiovascular disease related to obesity
- 42% breast and colon cancer diagnosed among obese individuals
- 30% of gall bladder surgery related to obesity
- 26% of high blood pressure

According to the New York State Department of Health:

- “Chronic diseases affect the lives of six million New Yorkers, and account for 73% of deaths in New York State annually.”
- “Of the 157,000 deaths in New York State in 2002, 114,000 were attributable to the top five chronic diseases. The proportion of deaths due to chronic disease in New York is somewhat higher than that of the United States, primarily because of higher deaths from diseases of the heart.”
- “Although common and costly, many chronic diseases are also preventable. Many chronic diseases are linked to lifestyle choices that are within your own hands to change. Eating nutritious foods, becoming more physically active and avoiding tobacco can help keep you from developing many of these diseases and conditions.”
New York State Department of Health continued

- Based on a study of Behavioral Risk Factor Surveillance System (BRFSS) data, 6.6% of all adults (approximately 950,000) in New York State are estimated to have diagnosed diabetes. An estimated additional 450,000 adults have diabetes but remain undiagnosed. This represents a 50% increase since 1993”

EVIDENCE BASED CHRONIC DISEASE PREVENTION

According to the New York State Department of Health Division of Chronic Disease, it’s top priorities are:

- “Health system interventions to improve the effective delivery and use of clinical and other preventive services in order to prevent disease, detect diseases early, and reduce or eliminate risk factors and mitigate or manage complications due to chronic diseases.”
- “Strategies to improve community-clinical linkages ensuring that communities support and clinics refer patients to programs that improve management of chronic conditions. Such interventions ensure that those with or at high risk for chronic diseases have access to quality community resources to best manage their conditions or disease risk.”

The World Health Organization has estimated that if the major risk factors of chronic disease were eliminated, at least 80 percent of all heart disease, stroke and type-2 diabetes would be prevented and more than 40 percent of cancer.

Although the evidence is well known that chronic disease is preventable and reversible the MD (allopathic) dominated healthcare system to this day does not integrate it into treatment as the prevalence of chronic disease shows.

As far back as 1998 JAMA, the *Journal of the American Medical Association* reported:

- “Lifestyle change is the only intervention proven to reverse coronary artery disease.” (Ornish et al., JAMA, 1998)
- “One year of lifestyle intervention for patients with coronary artery disease not only improved all health outcomes and reduced the need for surgery but also cost significantly less then conventional treatment ($7,000 vs $31,000 –$46,000). “(Ornish et al., JAMA, 1998)

According the *New England Journal of Medicine* in 2002

- “58% of Type 2 diabetes is preventable by lifestyle modification (Diabetes Prevention Program)
A study done by the Department of Health in the State of Washington found:

- Non-complimentary medical providers were not recommending lifestyle changes despite the evidence.
- Only 16% of adult respondents said they were advised by their doctor, nurse, or other health professional to eat fewer high fat or high cholesterol foods.
- Only 20% were advised to eat more fruits and vegetables.
- Only 23% were advised to be more physically active.

(SOURCE: The Burden of Heart Disease and Stroke in Washington State 2004; WA State Dept. of Health)

**Primary Care should be Preventive Medicine**

- “Naturopathic doctors are trained specifically in the prevention and early intervention of chronic conditions thus reducing premiums for those employees utilizing naturopathic medicine.”


- 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.


A 2013 study reported in the Canadian Medical Association Journal showed:

- 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.
- The same study found that after one year, naturopathic patients were 16.9% less likely to have developed metabolic syndrome than conventional care patients.

TRAINING

Naturopathic Doctors are Highly Trained World-class Wellness Experts

CURRICULUM
Comparison of academic curriculum hours for US Naturopathic (ND), Allopathic (MD) and Osteopathic Schools

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There are 6 Naturopathic Medical Schools in the United States located in: Portland OR, Scottsdale AZ, San Diego CA, Seattle WA, Bridgeport CT and Lombard IL. Programs include:

- Minimum pre-requisites are 3 years of pre-medical sciences at a university including: biology, biochemistry, chemistry, organic chemistry, introductory psychology and humanities.
- Classroom Training: 4-year-full time program in an accredited school of Naturopathic Medicine that includes more than 4,500 hours of in-class training
- Clinical Experience - All students must complete 1,500 hours of clinical requirements and demonstrate proficiency in all aspects of Naturopathic Medicine prior to graduation.

ACCREDITATION
Naturopathic Medical Education (CNME) [www.cnme.org] is recognized by the U.S. Department of Education as the profession’s programmatic accrediting agency.

NATIONAL BOARD EXAMS
Graduates from CNME accredited programs are qualified to sit for professional proficiency exams administered by the North American Board of Naturopathic Medical Examiners (NABNE) [www.nabne.org] and written by the Naturopathic Physicians Licensing Examination (NPLEX). Other tests may be required by state regulatory agencies. Details about these exams can be found at: https://www.nabne.org/home/exam-overview/
COST EFFECTIVENESS

Naturopathic Medicine reduces chronic risk factors and saves significant healthcare costs

848 employees for the Vermont Automobile Dealers Association were examined and advised by Naturopathic Doctors (NDs) for one year. The organization saved $1.5 million in direct and indirect medical costs the first year; that is $1800 per employee.

The drastic reduction in health risk factors has resulted in a decrease in insurance premiums for each year the program has been in place.

- Direct health care costs were reduced by an estimated $315,817 leading to a 4.6 to 1 return on investment
- Indirect health care costs were reduced by an estimated $1,143,657 leading to a 16.5 to 1 return on investment
- Combined direct and indirect health care savings lead to overall 21.1 to 1 return on investment ($21.10 saved for every dollar invested)
- Only 0.2% increase in per member claims cost (2005) compared to a national average of over 7%.

When Chronic disease risk factors are reduced Savings results and Quality of Life

- 36% reduction in the incidence of hypertension
- 16% reduction in the incidence of high cholesterol
- 35% reduction in multiple cardiovascular risks
- 17% reduction in smokers
- 21% reduction of physically inactive employees
- 25% reduction of excessive stress (both work and personal)

SOURCE: Vermont Automobile Dealer’s Association and Green Mountain Wellness Solutions

Studies from Washington State show naturopathic medicine costs insurers and consumers less than conventional care.¹

Patients utilizing naturopathic medicine report much higher patient satisfaction and health improvement, as compared to conventional care.²

Naturopathic Medicine for the Prevention of Type 2 Diabetes

- Research shows that naturopathic medicine improves blood glucose control, patient self-management behaviors, and self-efficacy among patients with diabetes.

- Naturopathic doctors **address lifestyle modification** (dietary recommendations, exercise prescriptions and stress reduction techniques) with 69-100% of their diabetic patients.

- Patients under an ND’s care are **17% less likely to develop metabolic syndrome** than those in conventional care.

- 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. 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.

- “CAM (Complimentary Alternative Medicine) users averaged $1,420 less in annual health care expenditures than nonusers in patients with the heaviest disease burden.”

- “Changes in lifestyle and stress reduction – a major focus of naturopathic medicine – could save the US $10 billion annually in reduced coronary angioplasty procedures and coronary bypass operations alone, and insurance savings of almost $30,000 per patient.”
• “Corporate health management programs associated with prevention and wellness showed a 26% reduction in health care costs and a $5.81-$6 returned for every $1 invested.”

• A Blue Shield of Washington study found that “utilizing NDs as PCPs would reduce cost for chronic and stress-related illness up to 40% and cut costs of specialist utilization by 30%.”

• Another comparison revealed a $356 annual health cost savings for each user of Complementary and Alternative Medicine (CAM) when compared to CAM nonusers.

• Evidence shows that Naturopathic doctors treated 7 of the top 10 most expensive health conditions more cost effectively than MDs or other conventional providers.
SOURCE: Henny, Geoffrey C., Alternative Health Care Consultant, King County Medical Blue Shield (KCMBS), Phase I Final Report: Alternative Healthcare Project, 1995

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.

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).

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.16
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**.


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%.


**Asthma**
- The total cost of asthma hospitalizations in New York State for 2007 was approximately $535 million, a 70% increase in the cost since 1998 ($315 million).
- Increasing evidence supports numerous naturopathic treatments for both the prevention and treatment of chronic lung conditions, including the use of fish oil supplements, magnesium for acute symptoms, and nebulized glutathione.


**High Quality Care at Low Cost to Insurance Premiums**

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%.”


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**.


Naturopathic doctors delivering the same Medicaid services in Oregon are 57.5% more cost effective than MD/DO/NP PCPs providing the same services.

SAFETY

Malpractice claims against CAM practitioners occur less frequently and typically involved less severe injury than claims against Conventional Physicians.

SOURCES:

Jury Verdicts Northwest with civil court records in states where 55% of naturopathic doctors practice, reported that their records show zero cases paid against naturopathic doctors and only 17 filed in 20 years.

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<tr>
<td>MD/DO Malpractice Claims Total Paid</td>
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<tr>
<td>ND Malpractice Claims Total Filed</td>
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EFFICACY = PATIENT SATISFACTION

According to a study comparing Complimentary Alternative Medicine vs. Allopathic medicine:

- Patient satisfaction with services: (92%) CAM vs. (44%) conventional
- Patients reported conventional care as very (17%) or moderately (27%) helpful
- Patients reported CAM care as extremely (56%), very (26%) helpful
- Patients reported they would definitely (76%) or probably (13%) return to the same CAM provider


Naturopathic medicine is safe evidence-based medicine focused on the prevention and recovery from chronic disease with proven cost savings.