



# “Integrative Health and Medicine: Today’s Answer to Affordable Healthcare”

## Health Creation Economics



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# Health and Disease



HARVEY FINEBERG, PRESIDENT OF THE INSTITUTE OF MEDICINE (IOM) in a 2013 IOM report concluded; “The United States spends much more money on health care than any other country. Yet, Americans die sooner and experience more illness than residents in many other countries...The nation’s current health trajectory is lower in success and higher in cost than it should be. The cost of inaction is high.”<sup>1</sup>

With health care costs currently at 2.5 trillion dollars, the cost of inaction is indeed high. While few would argue the benefits of conventional medicine in acute care, it is clear that other Global Healing Traditions which focus on disease prevention and health creation have some very valuable lessons to offer. As think-tanks around the country are struggling to find a solution through technology, accountable care organizations and bundled payment systems the answer is right in front of us.

Integrative Health and Medicine offers a comprehensive prevention-based approach to effectively treat chronic disease and enhance health promotion. Integrative Health and Medicine embraces a multi-disciplinary team of licensed health care providers working at the highest level of their scope of practice. This includes health practitioners such as naturopathic doctors, chiropractors, acupuncturists, nurse practitioners, nurses, midwives, nutritionists and massage therapists. Although many of these health care practitioners have been lumped into the term complementary and alternative medicine (CAM) providers, we prefer to use the term Integrative Health and Medicine and refer specifically to the distinct licensed professionals whenever possible. CAM will be used in the traditional sense when citing research studies that used the term. There is no need to “discover” a new model of care through statistical algorithms. Patients who work with Integrative Health and Medicine practitioners are already achieving the Triple Aim: They 1) are **healthier**, 2) have **lower** health care costs, and 3) report extremely high levels of **patient satisfaction**. Through a collaborative approach to health care, integrative health care solutions contribute to the Triple Aim of health care every day. How? This publication, prepared by an expert team of researchers and providers, explores four interrelated ways in which the contributions of these licensed health professionals reduce health care costs.



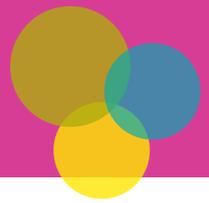
## Get people healthier to prevent big-ticket chronic diseases.

Seven preventable chronic diseases – cancer, diabetes, hypertension, stroke, heart disease, pulmonary conditions and mental illness – cost the U.S. economy \$1.3 trillion annually, including the cost of lost productivity.<sup>2</sup> While healthy lifestyle change requires investment from more than just the health care arena, health-oriented providers play a critical role. CAM users were 64% more likely to report that their health had improved over the last year.<sup>3</sup> Not only are prevention and health promotion fundamental cornerstones of CAM, integrative health and medicine practitioners counsel patients more frequently and consistently than conventional providers. See [page 5 of this publication](#).



## CAM creates better outcomes, especially in those who are chronically ill.

Contrary to the common critique that there is a lack of evidence, thousands of studies, including randomized controlled trials published in top medical journals demonstrate *superior outcomes* compared with usual or conventional care. For example, on [page 6](#), we highlight research demonstrating the ways naturopathic medicine prevents cardiovascular disease and metabolic syndrome at a cost less than prescribing a pill! Colon cancer patients receiving a treatment protocol consisting of acupuncture, traditional Asian medicine and vitamins had a 60%-82% survival rate at five years compared with a 7%-8% survival rate among patients receiving conventional care alone.<sup>4</sup> European countries, in which general practitioners are co-trained in integrative approaches, have incorporated CAM into national health care systems based on studies showing better outcomes and lower costs. See [page 12](#).



**Keep costs low by keeping care simple and adhering to a common-sense therapeutic order.**

Individuals with back pain cost the health care system 60% more than patients without back pain, largely due to expensive, often ineffective diagnostics and surgical procedures.<sup>5</sup> Chiropractors, acupuncturists, naturopathic doctors, certified professional midwives and massage therapists are experts in administering less invasive, low-cost treatments that support the body while it heals itself, and that serve as effective substitutes for riskier modalities such as prescription narcotics. We explore cost-effectiveness studies of chiropractic, acupuncture, naturopathic and massage therapy for low back pain that demonstrate impressive results on **pages 6-10**. But even if one were to set aside the data, an approach to treatment that begins with low-force, non-addictive, low-cost care options that feel good just makes sense.



**Reduce costs up front through complementary, alternative, and integrative therapies.**

Many people have the impression that the use of CAM creates substantial add-on costs for health care systems and individual payers. This myth simply is not true. Critics often claim that patients are draining their bank accounts on out-of-pocket costs associated with CAM. Yet the actual costs – \$33 billion – is pocket change compared to the \$268 billion spent out-of-pocket on conventional care in the same year.<sup>6</sup>

For example, certified professional and nurse midwives incur fewer complications and offer equivalent safety records at a fraction of the cost (**page 7**).<sup>7</sup> In Washington state, where CAM health care providers of every discipline have been a mandated part of the health care system for nearly 20 years, data show that patients who see CAM providers have lower prescription drug costs, hospitalization costs, and total costs, despite starting out in poorer health and incurring the “additional” cost of the CAM provider’s services (**page 14**).<sup>8</sup> Nurse practitioner-management of chronic disease also has been found to reduce overall prescription drug costs (**page 13**).<sup>9</sup> Because nurse practitioners provide therapies that are less expensive than those provided by other health care professionals, they not only reduce costs, but also may increase access through “first contact points of entry,” reaching people who are unwilling or unable to access the conventional health care system.

The health care system of the United States is in crisis. A workforce of nearly one million skilled, licensed complementary, alternative, and integrative health and medicine practitioners already are reducing costs and improving patients’ lives every day.<sup>10</sup> These practitioners are leading the shift away from disease-focused care toward health-oriented care. Making access to these providers an option for every patient, through every health insurance product in every state, as stipulated in Section 2706 of the Affordable Care Act, will have both short and long-term impacts on both the health and economy of the United States.

Yours in health,

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# HEALTH CREATION: What would a health-oriented system look like?

Imagine a health care system in which Americans take the initiative to manage their own health and every American can access a primary care team that includes the types of licensed professionals of their choosing. Imagine being offered early access to prevention; health promotion and common sense low-risk interventions first. Imagine a focus on lifestyle change and healthy communities, a healthy food system and planet. Imagine Americans living long and healthy lives with low end-of-life health care costs. Unfortunately, our nation currently is a long way from this ideal. The Institute of Medicine of the National Academies reports: Americans live shorter lives and are in poorer health compared with residents of other high-income countries.<sup>11</sup> What's more, we pay much more for health care than residents of these countries.<sup>12</sup>

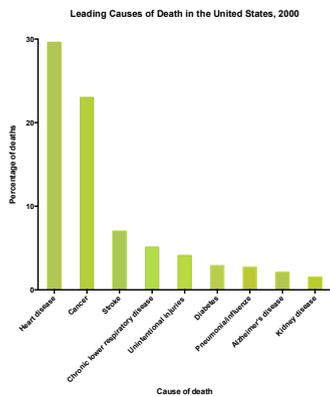


## What is the price of poor health?

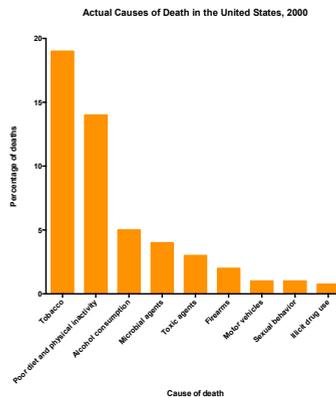
The majority of chronic diseases are potentially preventable. For example, Harvard epidemiologist Walter C. Willett reports that seven out of every 10 adult deaths each year are potentially preventable with a combination of moderate behavioral changes (see the figure below).<sup>13</sup> Alcohol abuse alone costs the U.S. health care system \$85.8 billion. The tab for cigarette smoking totals over \$65 billion annually. Health care costs related to obesity now surpass \$27 billion per year. If the entire U.S. sedentary population began walking regularly, our nation could recover \$6.4 billion from heart disease prevention alone.<sup>14</sup>

Lost productivity due to sick days associated with obesity and chronic conditions costs U.S. employers \$153 billion each year. Chronically ill and obese Americans use 3 or more sick days per month compared to 0.3 sick days for healthy workers (who account for only 13% of the U.S. workforce). At the end of the day, poor health

costs employers **23 cents for every hour worked**, according to U.S. Department of Labor statistics.<sup>15</sup>



Adapted from: Mirano AM, et al. Deaths: final data for 2000. National Vital Statistics Report 2002; 50(15): 1-120.



Adapted from: Mallick A, et al. Actual causes of death in the United States 2000. JAMA. 2004; 291(10): 1238-1246.

Physical activity, nonsmoking, a high-quality diet, minimal alcohol consumption, and healthy body weight are universally recognized as the foundations of a health-promoting, disease-preventing lifestyle; yet less than 15% of the U.S. population is on track with four of these five simple lifestyle goals. Only 43% of Americans are at a healthy weight.<sup>16</sup>

## Lifestyle can be changed, and healthier people cost the U.S. health care system less.

Lifestyle changes such as diet and exercise have been shown to reduce the incidence of diabetes dramatically. In 2002, *The New England Journal of Medicine* reported the results of the Diabetes Prevention Program in which 3,234 people at high risk for diabetes were randomized to placebo, the drug metformin, or a lifestyle-modification program. The onset of diabetes was cut by nearly 60% in the lifestyle group. Furthermore, preventing diabetes with lifestyle proved to be more cost-effective, requiring about \$8,800 for the lifestyle intervention compared with a \$29,900 investment for the drug intervention per quality-adjusted-life-year.<sup>17</sup> Such programs are inconsistently covered by insurance.

**The Ornish Lifestyle Program** – which combines a plant-based diet, physical activity, yoga-based mindfulness training, and group support – has been shown to reverse heart disease and prostate cancer in well-controlled clinical trials over the past 30 years. Results show that 80% of people who changed their lifestyles through the program were able to avoid heart surgery or angioplasty at a savings calculated at almost \$30,000 per patient in the first year or a cost savings of \$6.66 for every dollar spent on patients with severe cardiovascular disease.<sup>18</sup> Medicare has covered comprehensive lifestyle change programs for cardiac rehabilitation since 1999.



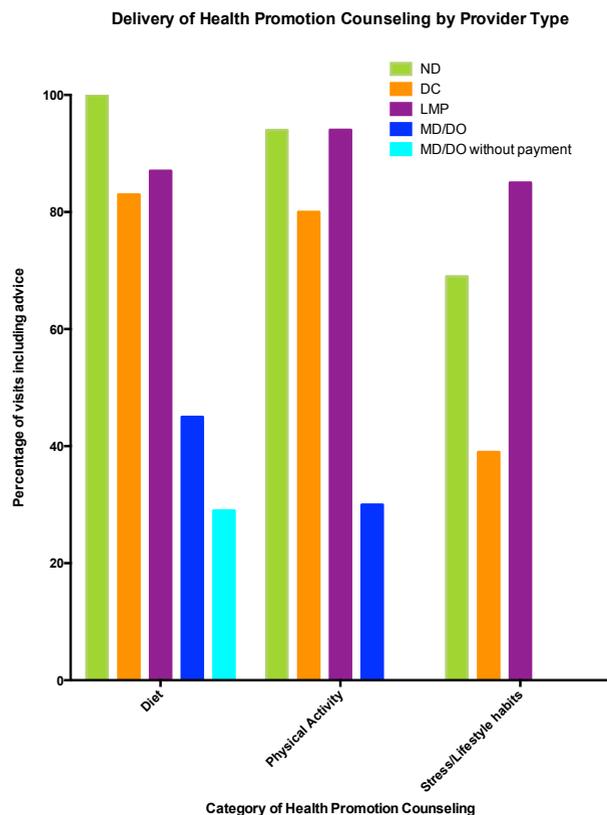
# HEALTH CREATION: CAM practitioners create health daily



Skilled lifestyle modification practitioners are an important yet woefully underutilized resource. Each year, 75% of Americans attempt to adopt a new health practice, yet just 16% of these efforts are reported to be “very successful.” Logic tells us that people inherently want to be healthier so they can feel better, work, take care of their families, enjoy retirement, and prevent disease, but research demonstrates that successful health promotion requires more than good intentions. Every type of integrative health and medicine profession emphasizes behavior change and the prevention of disease with the exception of conventional medicine which focuses on disease “management” after disease has occurred, as the chart below demonstrates.<sup>19 20 21 22 23</sup> **Improving access to practitioners who excel in health promotion will increase the percentage of Americans who are “very successful” in changing their health habits.**

Routine and repeated health promotion counseling results in real changes for patients’ positive health behaviors and self-care.<sup>24 25</sup> In a national survey of over 23,000 people, CAM users were 64% more likely to report that their health had improved over the last year ( $p < 0.0001$ ).

Compared to those who did not use CAM, CAM users were more likely to rate their health as “excellent.”<sup>26</sup> And yet, for most people, these health benefits were realized through out-of-pocket payments; these practitioners and their health-promoting services are rarely covered by insurance.



What explains the remarkable success of health promotion as compared to conventional care? One patient explained it this way:

*“I was surprised at how much it depended on me. You know, I guess this process has shown me how much my health is in my hands. That I’m not having to give it over to an MD to watch me deteriorate, and that certain markers mean certain things because this is the way the disease progresses. [The ND] was more like, take these steps and these things can change. Keep you as healthy as we can, as long as we can.”*

The implementation of CAM modalities have a synergistic effect. Patients working with CAM providers spontaneously improve health

behaviors, even if not specifically encouraged to do so.<sup>27 28</sup> This improvement is seen in military populations as well.<sup>29</sup> People start with CAM, and then get healthier.

The majority (73%) of CAM users surveyed in a study reported making behavioral changes such as eating better and exercising more. The principle reasons patients reported making such changes included *the treatment made them feel well enough to make the health behavior changes (53%), feeling better due to treatment acted as a motivator to change behavior (53%), the CAM provider suggested the change (53%), and treatments themselves helped (48%).*<sup>30</sup>

# PREVENTION: Naturopathic Care



## Naturopathic care reduces heart disease at a lower cost than prescription medication.



Naturopathic doctors (NDs) are primary care providers who use the Therapeutic Order (page 8) to emphasize prevention, health improvement, and chronic disease management through healthy lifestyle choices and low-force treatments.<sup>43</sup> Chronic disease prevention is cost-effective because nearly half (47%) of Americans have at least one risk factor for heart disease or stroke, and over half of the population (117 million) already have been diagnosed with a chronic disease. Astoundingly, 84% of all U.S. health care expenditures in 2006 was spent on this 50% of the population with chronic disease – a cost that is shared by all of us.<sup>31</sup> Clinical trials and other research on naturopathic physician-managed chronic disease demonstrate that increasing patient access to NDs is a successful strategy to help reverse this trend and improve the health of the U.S. economy.

Medication is not always cheaper. In the U.S., prescription drugs are frequently lauded as the “answer.” In fact, some have called for a “polypill” to be administered to adults over 50 to treat them for cardiovascular disease whether they have it or not.<sup>32</sup> Yet in a 2013 randomized controlled trial, the cost of providing naturopathic care was shown to be lower than that of the *wholesale* cost of providing a statin drug to all at-risk patients<sup>34</sup> - without the negative side effects statins can cause, such as muscle pain, liver damage, and memory loss!

A recent clinical trial revealed encouraging results in a number of quantifiable areas:

- **Reduced cardiac risk:** Naturopathic strategies (individualized healthy lifestyle recommendations, nutrition, and dietary supplements) resulted in reducing 10-year cardiovascular event risk by one-third. For patients at moderate-to-high levels of risk, the benefit proved even greater, giving 18 workers out of 100 reasonable expectations to avoid a major cardiovascular event when they implemented these naturopathic strategies.<sup>34</sup> Indeed, The Centers for Disease Control has called for programs such as these in its Winnable Battles strategy framework.<sup>33</sup>
- **Cost savings:** Naturopathic treatment of patients at high cardiovascular risk showed a societal cost savings of \$1,138 per participant and a reduction in employer costs of \$1,187.<sup>37</sup>
- **Frequency of doctor visits:** Patients of NDs had fewer conventional doctor visits (four fewer over the year) and lost 55 fewer hours at work over the year compared to an enhanced usual care control group.

*“[The MDs] look at numbers and then prescribe a pill. I thought that was perfectly normal until [I worked with] the naturopath who said I think we can fix this with a change of diet. That got my attention. The changes were sort of like why don’t you try this — rather than what my pill doctor said, which is you will take this, this, and this. I didn’t know what the ramifications were of missing a pill or taking too much or anything like that... That for me was really helpful, alternative ways of looking at things and doing things.”<sup>35</sup>*

## Study after study finds major cost savings with the use of naturopathic care.

- An internal study by BlueCross BlueShield concluded that a naturopathic physician-managed chronic disease program lowered the costs of chronic and stress related illness by up to 40% and lowered costs of specialist utilization by 30%.<sup>36</sup>
- A 2006 University of Washington study found that in Washington state, naturopathic care cost insurers \$9 per enrollee versus \$686 for those who received conventional care.<sup>8</sup>
- Naturopathic treatment of patients at high cardiovascular risk showed a societal cost savings of \$1,138 per participant and a reduction in employer costs of \$1,187.<sup>37</sup>

Yet in many other states, such naturopathic care is not a viable option to patients due to lack of licensing and insurance coverage.

# PREVENTION: Midwifery



## Out-of hospital births attended by Certified Professional Midwives (CPMs) prevent expensive, high-risk obstetric procedures with equal, if not better safety outcomes.

Midwives are trained health care professionals with expertise in supporting women to maintain healthy pregnancies and have optimal births and post-delivery recoveries.



In 2010 there were nearly 1.3 million Cesarean section deliveries, or nearly a third of all births. The World Health Organization reports that an optimal expected C-section rate is somewhere between 5-15%.<sup>38</sup> Since when did the normal, natural act of giving birth become a medicalized disease?



In the U.S., the average hospital-based pregnancy and newborn care cost insurers \$18,329 for a vaginal delivery and \$27,866 for a Cesarean section.<sup>39</sup> Compare those costs with \$3,939 for a certified professional midwife-attended vaginal birth at a birth center.<sup>6</sup>

- On average, an out-of-hospital birth attended by a Certified Professional Midwife cost Medicaid \$3,374 less than a low-risk hospital birth. The total number of Medicaid-paid deliveries in 2006 was 2,055,000 nationwide, and if just 1% of these women chose to give birth out-of-hospital with a CPM, the estimated cost-savings would be \$69,335,700 (in 2006 dollars).<sup>40</sup> This is a conservative estimate; based on estimates to private insurers, the savings could be double.
- The American College of Obstetrics and Gynecology recently “came out strongly against the overuse of C-sections” by encouraging obstetricians to allow women to take more time to progress through a vaginal delivery without intervention, which research shows is healthier for both mother and baby. CPMs already follow these recommendations, and as such, have significantly lower cesarean section rates.<sup>41</sup>
- Data from 13 trials involving a total of 16,242 (high- and low-risk) women looked at outcomes for mothers and babies when midwives were the main providers of care, compared to medical-led or shared care models. When midwives were the main providers of care throughout, women were less likely to give birth before 37 weeks or lose their babies before 24 weeks. Women were happier with the care they received, had fewer injections of epidural anesthesia, fewer assisted births, and fewer surgical episiotomies.<sup>42</sup>
- CPMs and Certified Nurse-Midwives (CPMs and CNMs) produced higher breast-feeding rates, with the accompanying increased immunity and other demonstrated health benefits for mothers and infants extending throughout their lifetimes.

In total, research on Certified Professional Midwives demonstrate improved childbirth outcomes, especially for vulnerable populations. These improved outcomes achieved lower cost with comparable rates of neonatal mortality, compared to low-risk hospital births. Consider the possibilities if more women were able to access these providers!

Shortly after Section 2706 of the ACA went into effect Jan. 1, 2014, an expectant mother in California decided that she wanted her first child to be born attended by professional midwives outside the hospital. Her insurance company told her that her only covered option was hospital birth. Despite her many pleas and efforts, including a web-based petition that drew more than 2,700 signatures, she and her husband accepted the financial reality that they could not afford the out-of-pocket expense for their preferred choice and enjoyed the arrival of their first child.

Had she been a Medicaid patient, however, she could have had a successful and covered delivery in a midwife-led birthing center at almost half the cost of a hospital. Such savings are drawing attention: that \$69 million cited above becomes, in 2014 dollars, \$80 million. They will grow exponentially when midwife services attain the insurance coverage they deserve.



# THERAPEUTIC ORDER

## Common Sense Care: Applying a “therapeutic order” prevents high-cost, unnecessary, risky procedures.



In many Global Healing Traditions, the concept of a “therapeutic order” codifies a conservative approach to care. According to the therapeutic order, the lowest-force, least toxic, risky, or invasive treatment is employed first. If the first treatment fails, then interventions with increasing invasiveness (and risk) are tried.<sup>43</sup> The therapeutic order makes sense for a number of reasons:

- Providing therapies that are less expensive than drugs and surgery is cost effective.
- Providing treatments that ease the overall burden of suffering helps people *feel better*.
- Regular contact with an at-risk patient keeps him or her under medical supervision, preventing further decline into depression, sedentary lack of physical activity, and other behaviors that increase risk of more severe health problems.
- Effective low-risk treatments help patients avoid the expensive complications associated with pharmaceutical pain and mood management.

A 48 year old “weekend warrior” overdoes it on the basketball court, and seeks medical advice on Monday for acute low back pain that is limiting his walking and driving. After physical exam rules out significant signs of nerve damage or fracture, the therapeutic order would dictate offering options such as rest, ice, heat, acupuncture, or massage therapy before offering expensive MRIs, opiates, or back surgery. Unfortunately, this common sense approach is *not* standard practice in the U.S.

In 2008, the American College of Physicians and the American Pain Society issued joint clinical practice **guidelines** to inform a rational, evidence-based response to back pain.<sup>44</sup> The meta-analysis recommends acupuncture, massage, yoga, and functional restoration because these treatments are effective options for chronic low back pain. They also are generally safe when compared to the 16,500 nonsteroidal anti-inflammatory drug (NSAID)-related deaths in the U.S. each year. NSAIDs are *not* cost effective either. Surgical interventions are neither cost-effective nor recommended by ACP/APS guidelines.<sup>45</sup>

A licensed massage therapist in Oregon had been treating a client every week with trigger point therapy to deal with her debilitating shoulder pain. The client’s insurance did not cover these treatments, and for a time she paid out-of-pocket for them.

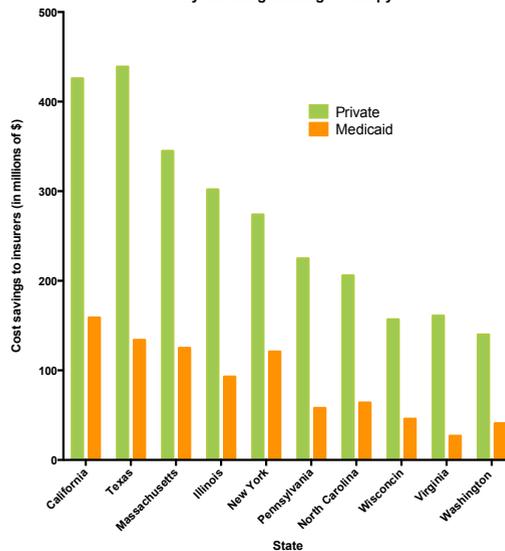
The client realized that she did have coverage under her policy for treatment by physical therapists. So she located a physical therapist covered by her plan that also offered trigger point therapy and stopped seeing the massage therapist.

But the client returned a week later. Although her policy covered the physical therapy, the treatments were so expensive that her co-insurance was more expensive than her out-of-pocket costs for using the massage therapist!

The client also reported that the trigger point therapy delivered by the physical therapist was not nearly as effective as that provided by this licensed massage therapist.

Private insurers could recover as much as \$4.55 billion if they were to cover massage therapy nationally, as opposed to the risky high force interventions they currently cover. Government third-party payers could also see substantial savings – as much as \$1.39 billion – if massage coverage was added to state Medicaid programs, as outlined in the table above.<sup>46</sup>

Estimated Savings for State and Private Insurers by Covering Massage Therapy



# PAIN: Chiropractic Care



## Chiropractic safely reduces patients' pain and health care costs.

Chiropractic is a drug-free therapeutic approach to health in which a skilled doctor provides physical realignments of the spine. Chiropractic care can effectively relieve pain, headaches, and some neurologic conditions. Doctors of chiropractic also emphasize healthy lifestyle choices.

**How much does pain cost?** The prevalence of pain has a tremendous impact on business. A recent report by the Institute of Medicine indicated that the annual value of lost productivity in 2010 ranged from \$297.4 billion to \$335.5 billion. The value of lost productivity is based on three estimates: days of work missed (ranging from \$11.6 to \$12.7 billion); lost productivity (from \$95.2 to \$96.5 billion); and lower wages (from \$190.6 billion to \$226.3 billion).<sup>47</sup> Additionally, individuals suffering from back pain cost the health care system 60% more than patients without back pain, largely due to expensive, often ineffective diagnostic and surgical procedures.<sup>48</sup>

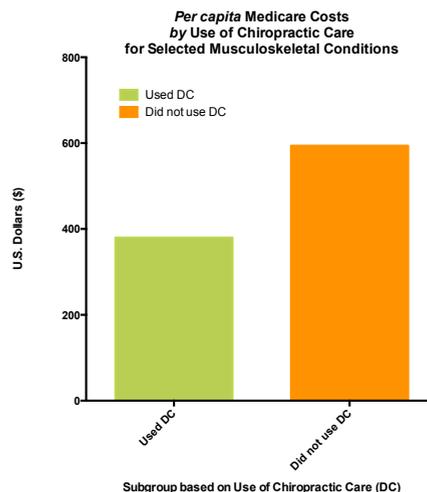
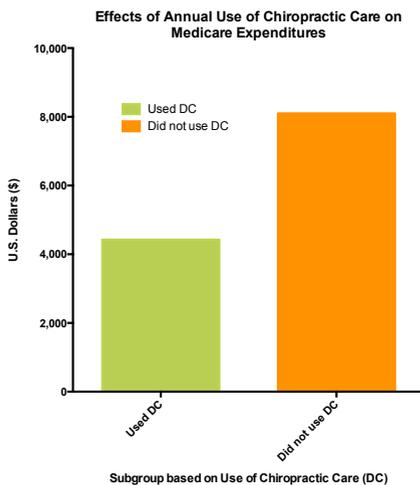
A 2010 study was designed to determine if there are differences in the costs of low back pain care when a patient is able to choose treatment from a medical doctor (MD) versus a doctor of chiropractic (DC).<sup>50</sup> Researchers analyzed data from 85,000 Blue Cross Blue Shield (BCBS) beneficiaries in Tennessee over a two-year span in which patients had equal access and insurance coverage to the MDs and DCs.

The study found that costs for care initiated with a DC were almost 40% less than the care initiated with an MD. Even after risk-adjustment, episodes of care initiated with a DC were 20% less expensive. Routine use of DCs as the initial provider for low back pain would potentially lead to annual cost savings of \$2.3 million for BCBS of Tennessee. The researchers also concluded that insurance companies that restrict access to chiropractic care for low back pain treatment may inadvertently pay more for care than they would if they removed such restrictions.

*"The average cost of a low back injury claim in the U.S. is \$15,884. When a worker with such an injury receives at least 75% of care from a chiropractor, the claim cost decreases to \$12,202 and when the worker receives at least 90% of care from a chiropractor, the average cost declines even further to \$7,632."*<sup>49 50</sup>

Back pain patients who have chiropractic coverage experience lower utilization of plain x-rays, as well as fewer low back surgeries, hospitalizations and MRI's. All-in-all, back pain episode-related costs were 25% less with chiropractic coverage.<sup>53</sup>

Studies of Medicare patients and of more than two million insurance subscribers report total annual health care costs to be 30-50% less with chiropractic care compared with medical doctor-only care for back pain. Patients who had chiropractic care paid an average Medicare bill of \$4,426 for all Medicare services compared with an average of \$8,103 for beneficiaries who didn't use chiropractic care.<sup>52 54 55</sup>



# ACUPUNCTURE



## Cost-effective for many pain conditions; improves cancer survival.

Acupuncture is a centuries-old modality that stimulates meridian points on the body through the use of very thin needles. Long derided in the West, acupuncture is gaining acceptance as respected researchers demonstrate its effectiveness for pain and other health conditions.

The cost of acupuncture is relatively low when compared with that of conventional medicine. The numerous diagnostic tests, branded pharmaceuticals, and surgical and non-surgical procedures involved in modern conventional medicine are costly. In contrast, the cost of acupuncture diagnostics and treatment supplies is relatively low.<sup>56</sup>

Perhaps the clearest example of cost-effectiveness-driven health care policy decisions at a national level comes from a series of studies performed in Germany.<sup>57</sup> These large clinical trials not only demonstrated the health benefit of acupuncture to patients in various disease states, but also proved to be a good return on investment. As a result, in April 2006, Germany's social health insurance funds began offering normal reimbursement for acupuncture treatment of chronic low back pain and osteoarthritis of the knee. An increasing number of U.S. insurers cover acupuncture for pain conditions, but Medicare does not. This lack of Medicare coverage causes our older population, overrepresented with conditions that cause pain, to default to more expensive and invasive medical solutions.

Acupuncture also may play an important role in helping patients with pain avoid more expensive, higher risk interventions. A 2012 British study found that one-third of total knee replacement candidates who received acupuncture instead of conventional treatment experienced long-term pain relief and were able to avoid surgery two years later, at a cost savings of \$8,100 per patient. In the U.S., where 719,000 knee replacement surgeries were performed in 2010, the savings could total \$1.9 billion.<sup>58</sup>



Perhaps even more remarkable than studies demonstrating acupuncture's improvement of chronic pain at a low cost are the increased survival rates of cancer patients treated with traditional Asian medicine.

When the entire system of traditional Asian medicine is used, including herbs,

nutrition, and traditional practices such as moxa or cupping, the results are astounding. In a series of research studies of different types of cancer, researchers in San Francisco demonstrated dramatically superior survival rates in cancer patients at any stage. The five-year data pattern at right demonstrates the differences in survival rates. The slope of the lines decline as patients die of cancer over time – a flatter slope shows higher survival. After the first year of acupuncture and Asian holistic treatment, 100% of patients were still alive, compared to only 40-95% (depending on the stage) of patients receiving only conventional care. Patients receiving integrative treatment showed a 60%-82% survival rate at five years compared with a 7%-8% survival rate of patients receiving conventional care alone.<sup>59</sup>

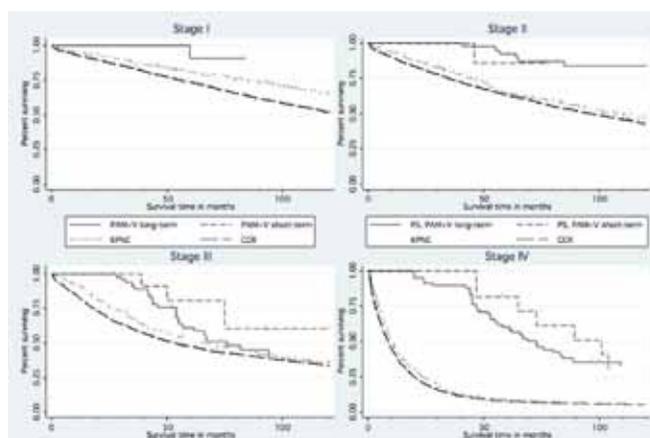


Figure 1. Survival in colon cancer, short-term Pan-Asian Medicine + vitamins (PAM-V) versus long-term PAM-V versus controls.

The efficacy of acupuncture and traditional Asian medicine for pain, cancer, and many other health conditions is proven. Forward-thinking American health care and insurance systems will support and incentivize visits to acupuncturists because they treat effectively and are cost-effective.

# WELLNESS IN THE WORKPLACE



## Investing in health is good business.

Employers get it. Healthy, happy employees are productive employees. Recent data show that 77% of large manufacturing companies have implemented employee wellness programs, and almost 30% of small businesses do – an increase of 50% compared to just five years ago.<sup>60</sup> Why the rapid increase? **Nearly 60% of all after-tax profit is spent on corporate health benefits, and 80% of these costs are spent on only 10% of the sickest employees.**<sup>61</sup> Preventive strategies that support health and wellness, such as those found in integrative lifestyle change programs, are successfully decreasing health care costs in corporations nationwide.

- A 2005 review of more than 120 studies of comprehensive health management programs offered by employers as a way to curtail health care costs showed that employers experienced an average 26% reduction in health care costs and an average \$5.81 returned for every \$1 invested in worksite health promotion initiatives.<sup>62</sup>
- Lifestyle change programs targeting high prevalence, high-cost conditions such as heart disease have been successfully incorporated as workplace interventions. One program using naturopathic doctors to deliver education on diet, exercise, stress reduction and dietary supplements resulted in an annual employer savings of more than \$1,100 per participant.<sup>34</sup> A similar program teaching health habits, activity, stress management and smoking cessation with select use of integrative-trained MDs found a 48% reduction in annual employer costs per participant.<sup>64</sup>
- A program in Resilience Training at Allina Hospitals and Clinics included mind-body techniques, exercise, and nutrition. More than 60% of the hospital employees achieved remission of their depression without the aid of medications, at a significant cost savings. In addition to lowered stress and anxiety levels, a research director at Allina reported that improved productivity and activity (presenteeism) had a value of \$2,181 per employee per year.<sup>65</sup>
- A comprehensive risk-reduction program targeting 10 modifiable health risks for 2,458 workers at 121 Colorado businesses found reductions in almost all factors, including obesity (-2.0%), poor eating habits (-5.8%), poor physical activity (-6.5%), tobacco use (-1.3%), high alcohol consumption (-1.7%), high stress (-3.5%), depression (-2.3%), high blood pressure (-0.3%), high total cholesterol (-0.9%), and high blood glucose (-0.2%). The return on investment (ROI) model estimated medical and productivity savings of \$2.03 for every \$1.00 invested at one year, with stronger projected savings as the course of chronic disease is avoided.
- The implementation of Whole-Person Caring programs emphasizing self-care, self-healing practices and lifestyle changes among hospital employees significantly decreased turnover, reducing costs by \$1.5 million per year. In addition, *patient* satisfaction significantly improved (even through the program didn't treat patients directly).<sup>66</sup>

Employers sometimes question whether the ROI on prevention and wellness continues over time. Data from an eight year analysis show positive ROI for each program year with ratios ranging from a low of 1.16:1 to a high of 2.83:1. The average ROI across all eight years was 2.02:1. The total ROI approximated more than \$6 million.<sup>67</sup>



The workplace is a microcosm of society. Creating a culture of health and a healthy environment supports a healthy lifestyle. The most effective workplace wellness programs show a return on investment greater than \$6:1. Exemplary programs are intentional about creating a strong culture of health, and often include modifications to the cafeteria and vending machine options, promotion of walking meetings, smoking bans, and enhancements to the physical environment to promote exercise, relaxation and stress reduction. Other critical factors include staff training to ensure that peers and managers are supportive and encourage healthy habits, allow time off for preventive clinical screenings, and offer incentives for healthy behavior activities (for example, discounts on insurance premiums).



# CARING FOR THE WHOLE PERSON: Integrative Practice Models



## Integrative practice models achieve success.

What is whole person care? It means treating the whole person; body, mind, emotions and spirit. Whole person care takes into consideration the individual and the world in which they live. It is person-centered. Whole person care means more time understanding each person thereby reducing duplicate, repetitive, or unnecessary treatments, tests, or visits. Whole person care helps patients avoid expensive complications and adverse events by using holistic treatments and self-care recommendations. This is the care complementary and integrative health practitioners provide, and we believe this cost-effective approach should be the model of primary care for all of America.



- Patients whose primary care provider was a doctor of chiropractic had lower costs and less health care utilization. Over a seven year period, patients of chiropractic primary care providers (PCPs) demonstrated decreases of 60.2% for in-hospital admissions, 59.0% fewer hospital days, 62.0% fewer outpatient surgeries and procedures, and 85% lower pharmaceutical costs when compared with conventional medicine.<sup>68</sup>
- In a ranking of 41 medical offices in the Pacific Northwest, the only integrative medical clinic in the group – a Seattle group staffed by naturopathic doctors, acupuncturists, nutritionists, psychologists, and integrative medical doctors – was **rated number one**. The study polled 90,000 patients; the integrative clinic was one of only three medical groups to score above 90th percentile on all four measures of patient experience.<sup>69</sup>



CAM is widely covered by insurance and is widely used in hospital-based systems in Europe. In fact, many European general practitioners (GPs) have specialty training in CAM. European Union CAM doctors work in mainstream hospitals (mainly in outpatient departments) offering acupuncture, homeopathy, naturopathic medicine, and other similar modalities.

- In the UK, 83% of GPs refer for CAM treatments and 20–40% provide CAM treatments (chiropractic, acupuncture, homeopathy) themselves. In Germany, 70% of GP's support CAM and 10% of all medical doctors hold an additional CAM qualification (up 125% in eight years).
- 75% of Swiss hospitals and other birthplaces use homeopathy during childbirth, administered by midwives and doctors. Thirty percent of the time, homeopathy substitutes for conventional medicine. The rest of the time homeopathy is combined with conventional treatments.<sup>70</sup>
- Dutch, Swiss and UK studies of holistic primary care have found better outcomes and lower costs. A six-year analysis in the Netherlands of nearly 1.6 million patients compared health care costs for patients of CAM GPs versus those receiving care from a conventionally (CON) trained GP alone. Mean annual costs of patients of CON GPs were \$2,218. The mean annual costs of patients of CAM GPs are \$352 (12.4%) less, mainly due to lower hospital and pharmaceutical care costs. Lower costs were found across all ages, but the biggest savings in hospital costs were in adults aged 50-75, whose annual expenditures were \$290 lower.<sup>71</sup>

A 2003 comparison of homeopathic general practice versus conventional GPs found a **60% greater reported cure-rate** accompanied by lower costs.<sup>72</sup> A 2011 study by the Swiss government found a 15% reduction in overall health care costs of patients whose GP used homeopathy or CAM, despite CAM patients having more chronic conditions and serious illness. Patients of conventional doctors had **four times as many serious side effects** as those treated by homeopathic doctors.<sup>73</sup> A dozen additional studies demonstrate that homeopathy is a cost-effective primary care approach.

As insurers and policy makers become aware of the better outcomes, high patient satisfaction and lower costs of CAM, we fully expect they will increase their support of CAM providers in primary care roles and their support for integrative practice models.



# CARING FOR THE WHOLE PERSON: Focus on Holistic Nursing



## The role of nursing in transforming health care.

Nursing is uniquely positioned to play a major role in the transformation of health care. Nurses represent the largest segment of the U.S. health care workforce, with more than three million members. Nursing practice covers a broad continuum of health care from health promotion, to disease prevention, to coordination of care, to cure when possible, to palliative and hospice care when cure is not possible.<sup>74</sup>



The Institute of Medicine (IOM) studied ways to provide affordable quality care that is accessible to all, patient-centered, evidence-based and leads to improved health outcomes. Two key recommendations of the IOM's report were to "ensure that nurses practice to the full extent of their education and training" and to provide opportunities "for nurses to assume leadership positions and to serve as full partners in health care redesign and improvement efforts."<sup>75</sup>



Utilizing nurses with advanced training such as nurse practitioners, clinical nurse specialists, nurse coaches, and those nurses with specialty board certifications (including holistic nursing) to the full extent of their training and education can help meet our nation's needs for primary care, prevention, and health promotion that is affordable and more accessible.



- A meta-analysis of nurse practitioners found they had higher levels of compliance, patient satisfaction, and "resolution of pathological conditions" when compared with physicians.<sup>76</sup> Nurse practitioners (NPs) accomplish this higher quality care at lower cost.<sup>77</sup>
- Based on a systematic review of 37 studies, cost-related outcomes such as length of stay, emergency visits, and hospitalizations for NP care are equivalent to those of physicians.<sup>78</sup> In 2012, modeling techniques were used to predict the potential for increased NP cost-effectiveness into the future, based on prior research and data. Using Texas as the model State, the potential economic impact associated with greater use of NPs and other advanced practice nurses, projected over \$16 billion in immediate cost reductions, which would increase over time.<sup>79</sup>
- A Kaiser Permanente study of over 40,000 patients found significantly higher patient satisfaction with nurse practitioner-delivered primary care.<sup>80</sup>

Holistic nursing uniquely contributes to affordable care. Holistic nursing is defined as "all nursing practice that has healing the whole person as its goal."<sup>81</sup> In 2006, the American Nurses Association (ANA) officially recognized holistic nursing as a distinct nursing specialty with a defined scope and standards of practice. The official recognition acknowledges holistic nursing's unique contribution to health, healing, and wellness. Holistic nurses use complementary, alternative, and integrative therapies that enhance the body, mind, emotion, and spirit to foster healing, health, wholeness, and well-being. Holistic nurses regularly employ imagery, visualization, relaxation, deep-breathing techniques, stress management, aromatherapy, and subtle energy therapies for patients in hospitals and private practice. Often used with cancer patients, these interventions are useful in reducing stress, pain, anxiety, and depression; accelerating healing; and promoting a greater sense of well-being and improving the quality of life.<sup>82 83 84 85</sup> Applying non-invasive, non-narcotic, self-empowering and self-healing interventions for commonly occurring problems fosters health and wellness at little or no cost.

Holistic nurses understand the scope of practice for conventional and non-conventional providers of health care and medicine. They provide information and counseling to people about alternative, complementary, integrative and conventional health care practices and facilitate negotiation of services as they guide individuals and families between conventional Western medical and alternative systems. As the delivery of care becomes more complex across a wide range of settings, the need to coordinate care among multiple providers becomes ever more important.<sup>86</sup> Holistic nurses play a major role in providing and coordinating cost effective services that promote health and wellness.

# COST SAVINGS



## Health insurers reap savings when plans include “every category of provider.”

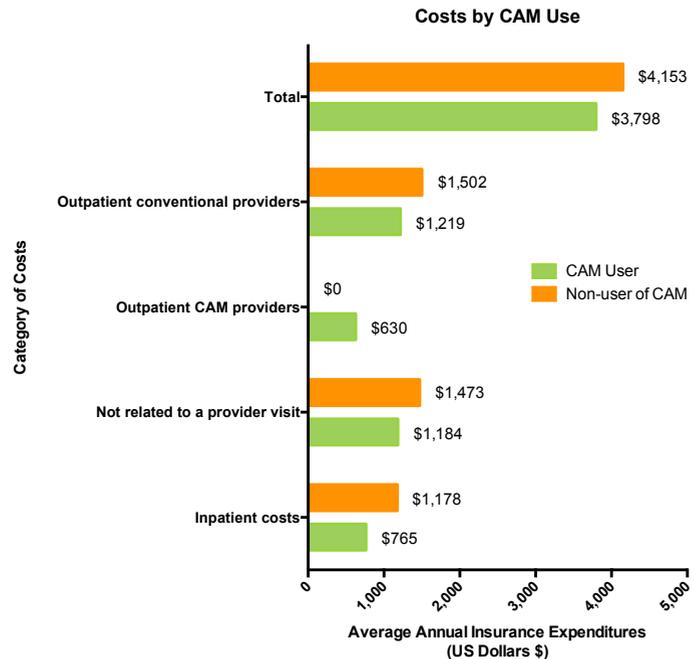
The Washington state health care experience has demonstrated that credentialing complementary and alternative medicine providers within health insurance plans significantly reduces health care costs. In 1996, the Washington State Legislature mandated that insurers cover “every category of provider” that could legally provide a given service. So, if an insurance company covered an annual cervical cancer screening exam, the insurer had to cover it whether the exam was performed by a medical doctor, nurse practitioner, naturopathic physician, or other practitioner acting within his or her scope. Similarly, if “low back pain” or “pregnancy” or “diabetes” is a covered condition, the insurer must allow patients to choose the type of licensed provider they desire to treat that condition.



Analysis of data from the four largest insurers in the state of Washington over the first decade of this law provides an excellent case study of what the nation could expect if CAM practitioners were more broadly covered by insurance.<sup>7</sup>



- CAM users had lower average expenditures than nonusers (\$3,797 versus \$4,153 annually).<sup>87</sup>
- The largest difference was seen in the patients with the heaviest disease burdens; the sickest CAM users averaged \$1,420 less annually than nonusers, a difference that is both statistically significant and highly meaningful to insurers.
- Patients who saw a naturopathic doctor, acupuncturist, chiropractor or massage therapist through their insurance benefits had **lower inpatient expenditures**: \$765 versus \$1,178 for enrollees not working with CAM providers.
- Overall, lack of use of CAM providers cost insurers \$355 more per enrollee per year or \$3.2 million across the State.<sup>88</sup>



The Veterans Health Administration (VHA) is another large payer. In 2011, the HAIG Report shows 90% of VHA facilities offer CAM services in some form.<sup>89</sup> The broad dissemination of CAM within the VHA is a testament to its value, and formal studies of CAM’s cost-effectiveness currently are underway. It is noteworthy that in 2002, the VHA considered chiropractic care to be a CAM modality, but since has re-classified it as a mainstream practice. Therefore, all references to chiropractic care were removed from definitions of CAM for 2011, and the 2002 data were updated to reflect the removal of this modality.

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## A Call to Action: The Trillion Dollar Solution

The U.S. health care system is in crisis. There is an urgent need for a health care transformation that will meet the Triple Aim through reduced costs, improved outcomes in population health, and an enhanced patient experience. Licensed integrative health and medicine professionals are the answer to this crisis. Their approach to collaborative care produces better health outcomes, higher patient satisfaction, and lower costs when compared with conventional medicine alone. Study after study demonstrates that full integration of CAM across the American health care system will reduce health care costs by billions of dollars – perhaps more than \$1 trillion – each year.



Accordingly, The Integrative Healthcare Policy Consortium encourages implementation of the following measures without delay:

- License and regulate qualified providers of CAM in all parts of the U.S.
- Implement section 2706 of the Affordable Care Act, stopping discrimination by insurers against licensed CAM practitioners. This law provides for insurance coverage of a covered service by any licensed practitioner acting within his or her scope. Enforcement of this law has the potential to replicate the successful, cost saving Washington state insurance experience nationally. CoverMyCare is a consumer-facing campaign to encourage advocacy on this issue ([www.covermycare.org](http://www.covermycare.org)).
- Apply the *same* evidence-based criteria to determine covered modalities from conventional and CAM – this would *decrease* coverage for unproven expensive surgical procedures and *increase* coverage for proven modalities like acupuncture and the other approaches used by CAM practitioners.
- Increase the proportion of the U.S. health care budget committed to public health initiatives focused on health promotion and prevention, such as school-based weight loss programs, healthier food options, and making communities safe for outside physical activity.
- Increase the proportion of U.S. research dollars allocated to the National Center for Complementary and Integrative Health to further the study of CAM and health promotion.

## About the Integrative Healthcare Policy Consortium

The Integrative Healthcare Policy Consortium advocates for an integrative healthcare system with equal access to the full range of health-oriented, person-centered, regulated healthcare professionals. We envision a national healthcare system devoted to optimal health and well-being. Our Partners for Health include:

Academy of Integrative Health and Medicine  
American Academy of Pain Management  
American Association of Naturopathic Physicians  
American Holistic Nurses Association  
American Massage Therapy Association  
Alliance for Massage Therapy Education  
Bastyr University, Center for Health Policy and Leadership  
International Chiropractors Association  
International Chiropractic Pediatric Association  
Life University  
National Association of Certified Professional Midwives  
National Center for Homeopathy  
National Certification Commission for Acupuncture and Oriental Medicine  
Naturopathic Medical Students Association  
Palmer College of Chiropractic  
Samueli Institute

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