

WHITE PAPER

Complementary and Alternative Medicine

Integrating Evidence-Based
and Cost-Effective CAM Into
the Health Care System



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Executive Summary

Current health care reform is focusing attention on existing health care delivery model limitations. Both the public and private sectors are grappling with the urgent need for health care system transformation. Monumental problems with cost, access, and quality call for innovative solutions.

There is a growing body of evidence that shows how complementary and alternative medicine (CAM) can add significant value in a reformed system of health care. Exploring the challenges that patients, providers, and payers all face today, one finds ever-increasing health care costs, problems of limited access driven by growing provider shortages, and inconsistent quality in the treatment of chronic diseases. Examining current evidence points to how fully integrated CAM providers and CAM insurance benefits can provide real value and meet this triple challenge of cost, access, and quality.

The U.S. Department of Health and Human Services describes CAM as “...a group of diverse medical and health care systems, practices, and products that are not generally considered to be part of conventional medicine.”ⁱ *Complementary* medicine describes health care that is integrated with conventional medicine while *Alternative* medicine describes health care that is used in place of conventional medical care. The four primary licensed providers of complementary and alternative medicine are chiropractic physicians, naturopathic physicians, acupuncturists, and massage therapists.

There is a paradigm shift toward progressive health systems focusing on wellness and prevention instead of what has come to be seen as our “sick care” system of health care delivery. The need for well-designed and managed CAM benefits is becoming apparent to innovative health care leaders and policy makers. CAM is a cost-effective and clinically effective strategy to help resolve the issues of cost, access, and quality.

As reported in the CDC National Health Statistics Report #12 (December 2008), CAM is used by 30-60% of Americans. Clearly, health care consumers have “voted with their feet.” The increasing adoption of CAM therapies by consumers has led to demand for the inclusion of CAM benefits in standard plan designs by health plans. However, seeing CAM only as an attractive add-on to medical benefits fails to leverage the potential of innovative CAM products and services. It is clear that CAM is already part of the solution for patients and consumers. It remains for health plans to achieve more complete and fully functional integration with CAM providers.

Innovation around CAM integration will be one of the many improvements in the new American delivery system that will be cost-effective for payers, accessible to patients and members, and better for all in improving health.

The Triple Challenge: Cost, Access, and Quality

Cost The cost of health care continues to increase. Health care costs have grown faster than the economy as a whole since 1980. Chronic conditions such as diabetes and hypertension contribute significantly to the high cost of health care.ⁱⁱ In many cases, chronic conditions are preventable or even reversible. In alarming numbers, more Americans are choosing to ignore the obvious benefits of healthy lifestyle choices and are instead turning to pharmaceuticals in an effort to feel well without making any meaningful changes.

Access At a time when we are laboring under the financial constraints of an inefficient system, we have too few primary care doctors graduating from medical schools. An April 12, 2010 article in the Wall Street Journal stated “Experts warn there won’t be enough doctors to treat the millions of people newly insured under the law. At current graduation and training rates, the nation could face a shortage of as many as 150,000 doctors in the next 15 years, according to the Association of American Medical Colleges.”

Quality Poor medical quality is a product of overuse, underuse, and misuse of medical services. While a vast amount of money is spent on medical care, the quality of that care and, therefore, the value derived from the money spent is in doubt. In *The Quality Chasm*, the Institute of Medicine described an unacceptable gap “between the healthcare we have and the healthcare we should have.”ⁱⁱⁱ Wennberg’s studies of unexplainable regional variation in care documents the unevenness of medical quality.^{iv} Other studies show that only about 55% of medical care delivered to adults is consistent with evidence-based recommendations.^v

CAM and Health Care Costs

Complementary and alternative medicine (CAM) is clearly taking a more prominent role in the health care delivery and finance systems. It has been demonstrated that it is not only cost-effective but also mitigates claims costs. In January 1996, the state of Washington enacted legislation mandating coverage for services provided by all of the state’s licensed categories of health care providers. The law includes acupuncturists, doctors of Asian medicine, medical doctors, chiropractors, naturopathic physicians, registered nurses, podiatrists, and massage therapists. Recently, an analysis of the Washington State experience supported by the National Institutes of Health concluded “...that among insured patients with back pain, fibromyalgia, and menopause symptoms, after minimizing selection bias by matching patients who use CAM providers to those who do not, those who use CAM will have lower insurance expenditures than those who do not use CAM.”^{vi} It was noted in the introduction to the comparison that because CAM therapies “avoid high technology” and “offer inexpensive remedies” they may offer cost savings.

In this study, CAM providers were defined as chiropractors, licensed massage therapists, acupuncturists, and naturopathic physicians. The results suggested that expected overall medical expenses would be \$9.4 million lower for a group of 26,466 CAM users with the medical conditions that were reviewed compared to an equal size group of similar

Expected overall medical expenses would be \$9.4 million lower

Snapshots of CAM Cost-effectiveness

“...there is evidence that even though *complementary therapies* are given in addition to usual care, they *can improve clinical outcomes without increasing costs.*” Herman P, Craig B, Caspi O. Is complementary and alternative medicine (CAM) cost-effective? A systematic review. *BMC Complementary and Alternative Medicine* 2005, 5:11doi:10.1186/1472-6882-5-11

“*Acupuncture for chronic headache improves health related quality of life at a small additional cost; it is relatively cost-effective compared with a number of other interventions...*”

Wonderling D, Vickers A, Grieve R, McCarney R. Cost-effectiveness analysis of a randomised trial of acupuncture for chronic headache in primary care. *BMJ*, doi:10.1136/bmj.38033.896505.EB (published 15 March 2004).

“*Systematic access to managed chiropractic care not only may prove to be clinically beneficial but also may reduce overall health care costs.*” Legorreta A., et al. Comparative Analysis of Individuals With and Without Chiropractic Coverage Patient Characteristics, Utilization, and Costs. *Arch Intern Med.* 2004;164:1985-1992.

Emphasis added.

nonusers. The comparison noted that while the population with low to moderate disease burden had slightly higher medical expenses, the population with high disease burden had much lower medical expenses – more than offsetting the increased costs of the low to moderate disease burden population. And because individuals with high disease burden typically drive the majority of claims expense, the potential for savings is much greater for CAM users.

The “Report to Congress on the Evaluation of the Demonstration of Coverage of Chiropractic Services Under Medicare” on June 16, 2009 included a survey of chiropractic users. Some noteworthy findings include:

- 59% of respondents cited “favorable earlier experiences” for seeking chiropractic care.
- 39% of respondents said they sought out chiropractic care due to “insufficient relief of symptoms by prior treatments from other health professionals.”
- 60% of respondents indicated that they received “complete” or “a lot” of relief of symptoms from their chiropractic treatments.
- 87% reported satisfaction levels of 8 or higher on a 10 point scale and 56% indicated a perfect score of 10.
- 95% indicated they had to wait no longer than one week for appointments. Similarly high proportions reported that chiropractors listened carefully and spent sufficient time with them.
- 60% of respondents indicated that they received “moderate” or “complete” relief from chiropractic treatments compared to 11% from treatments by other health professionals. It is important to note that the report states “This finding needs to be interpreted with caution... because patients whose symptoms were not relieved by prior therapy would be more likely to seek chiropractic care.” An additional editorial comment states “The high reported use of pain medications and surgery in treatments received from other types of health professionals suggests the potential for achieving cost offsets.”^{vii}

Escalating costs associated with the management of low-back pain led the Ontario (Canada) Ministry of Health to commission a study by health care economist, Pran Manga, PhD. The study found:

- Spinal manipulation applied by chiropractors is shown to be more effective than alternative treatments for low-back pain.
- “Our reading of the literature suggests that chiropractic manipulation is safer than medical management of low-back pain.”
- There is an overwhelming body of evidence indicating that chiropractic management of low-back pain is more cost-effective than medical management.
- There would be highly significant cost savings if more management of low-back pain was transferred from medical physicians to chiropractors. The literature clearly and consistently shows that the major savings from chiropractic management come from fewer and lower costs of auxiliary services, far fewer hospitalizations, and a highly significant reduction in chronic problems, as well as in levels and duration of disability.
- The use of chiropractic services has grown steadily over the years. Chiropractors are now accepted as a legitimate healing profession by the public and an increasing number of medical physicians.

The report goes on to recommend a shift in policy to encourage chiropractic services for most patients with low-back pain and full integration of chiropractic into the health care system, hospital privileges for chiropractors, and making chiropractors the gatekeepers for management of low-back pain in the workers’ compensation system in Ontario – among many other recommendations.^{viii}

The CAM Health Care Workforce Improves Access

Out of necessity and market demand more Americans are searching for health care solutions as the shortage of primary care doctors takes hold. Currently, there are an estimated 60,000 licensed chiropractors, 26,000 licensed acupuncturists, and 3,500 licensed naturopathic physicians in the U.S.^{ix} These providers continue to be highly sought after as accessible and

cost-effective health care solutions. CAM providers are held to the same strict standards of quality as conventional providers including advanced education, licensure, credentialing, the delivery of evidence-based care, and accountability for outcomes. While often regarded as “medical specialists,” CAM providers, especially chiropractors and naturopathic physicians are – by their training, licensure, and practice – a portal of entry, first-contact providers. While thoroughly trained in their own disciplines, Doctors of Chiropractic and Naturopathic Medicine also maintain referral relationships with conventional medical providers when services that may be out of the scope of CAM practice (e.g., major surgery) are necessary.

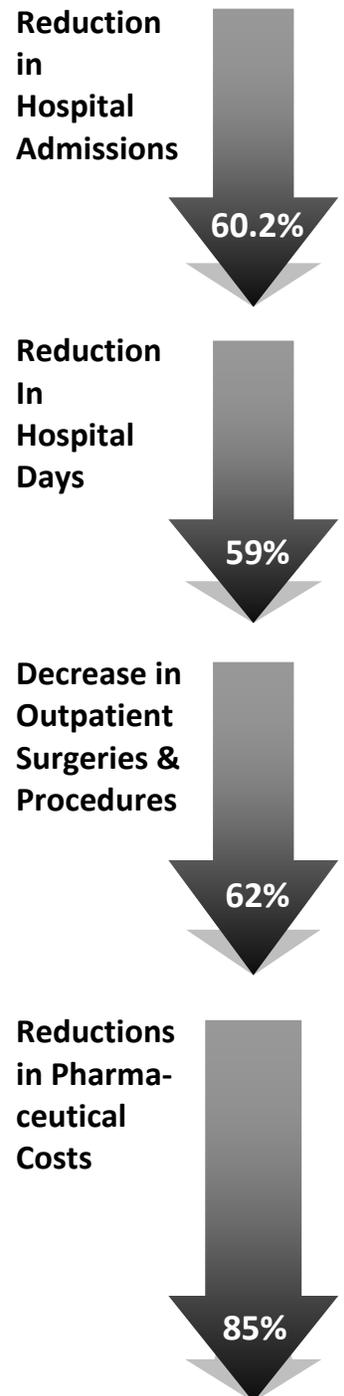
It has been documented that chiropractors are cost-effective primary care providers. A U.S. study, “Clinical Utilization and Cost Outcomes from an Integrative Medicine Independent Physician Association,” compared outcomes from an integrative physician group to determine whether “CAM practitioners are capable of treating a multitude of disorders and, if so whether the utilization and cost implications are higher or lower than those of conventional health care providers.” In the study clinical utilization and cost outcomes were assessed over 70,274 member months in a seven year period. Table 1 summarizes this experience.

These percentages represent comparisons to conventional medicine alone for the same HMO in the same geography and time frame.^x Based on demonstrated efficacy, established practices, and growth in acceptance, chiropractors, naturopathic physicians, and acupuncturists are the most logical providers to fill the void of primary care providers.

A recent newspaper article from Portland, Oregon documents the role of naturopathic physicians as providers of primary care in that state.^{xi} The report quotes Anne Nedrow, an internist at Oregon Health & Science University’s Center for Women’s Health, who supports naturopathic physicians taking on the primary care provider gap.

“I don’t think there will be any doubt that we will need them...” Nedrow says the naturopathic physicians she has

Table 1: Summary of Cost Outcomes



worked with showed an understanding of anatomy, physiology, and chemistry like that of MDs. The difference, she says, is “more of a culture of how you put it into practice.”

Nedrow says acceptance of naturopathic physicians as primary care providers will grow as the primary care MD shortage becomes more acute.

The passage of federal health care reform through the Patient Protection and Affordable Care Act (PPACA) moves U.S. medicine toward integration of CAM health care providers. Section 2706 of the Act specifies that “A group health plan and a health insurance issuer offering group or individual health insurance coverage shall not discriminate with respect to participation under the plan or coverage against any health care provider who is acting within the scope of that provider's license or certification under applicable State law.”

New solutions, however, must present ways to improve the quality of care while simultaneously decreasing cost and improving patient satisfaction. The growing shortage of conventional providers can be mitigated by this new level of partnership with and acceptance of CAM providers as part of the primary care which should be routinely provided to Americans.

Evidence-based CAM and Medical Quality

Marcia Angell, MD, the former editor of the New England Journal of Medicine, observed that there are two kinds of medicine: medicine that has a scientific foundation and that which does not.^{xii} The degree to which modern medicine is “evidence-based” is controversial. Depending on the definition of “evidence,” from as little as 15% to as much as 80% of medical treatments is based on evidence.^{xiii} Although there are critics of CAM that suggest CAM is “unscientific”, the emergence of complementary medicine on the national research scene through the National Institutes of Health National Center for Complementary and Alternative Medicine (NCCAM) promises to develop the academic and intellectual infrastructure that can explore the evidence which demonstrates the utility of complementary

therapies. There are currently more than 1,200 randomized controlled trials and 150 Cochrane Collaboration reviews of alternative therapies.^{xiv} Medical practice that is consistent with the evidence about CAM can not only reduce cost but also improve outcomes and quality.

Medical treatments must also be recognized for their potential for harm. Kilo and Larson observe in their commentary that “the benefits that U.S. health care currently deliver may not outweigh the aggregate health harm it imparts.”^{xv} They go on to catalog the direct physical and emotional harm and the indirect harm of expenditures that are excessive or of low clinical value. In contrast, CAM health care interventions present less potential for direct harm due to adverse events and less indirect harm due to lower “unit cost.”

For example, the field of spinal medicine has been criticized for using technologies that have not been tested adequately.^{xvi} A head-to-head comparison of surgical and non-surgical treatment for lumbar spinal stenosis showed nearly equivalent outcomes. Significantly, of the patients undergoing surgical procedures, 18% experienced complications during surgery and 9% in the post-surgical period. The study authors concluded that while both treatments were shown to be helpful, “...surgical decompression should be suggested with caution and only after due conservative (i.e. non-surgical) treatment of the patient.”^{xvii} Overuse of these spinal surgeries and underuse of non-surgical procedures (such as chiropractic) result in higher cost and lower quality of patient care.

According to the Agency for Healthcare Research and Quality’s Medical Expenditure Panel Survey, the top ten costliest medical conditions in the U.S. are:

Condition	Cost
Heart conditions	\$76 billion
Trauma disorders	\$72 billion
Cancer	\$70 billion
Mental disorders, including depression	\$56 billion
Asthma & chronic obstructive pulmonary disease	\$54 billion
Hypertension	\$42 billion
Type 2 diabetes:	\$34 billion

Back problems	\$32 billion
Normal childbirth	\$32 billion
Osteoarthritis, other joint diseases	\$34 billion

Treatment of chronic medical conditions consumes the largest share of spending on health care.

- Five percent of the population accounts for almost half (49 percent) of total health care expenses.
- The 15 most expensive health conditions account for 44 percent of total health care expenses.
- Patients with multiple chronic conditions cost up to seven times as much as patients with only one chronic condition.^{xviii}

As the population ages, this trend will likely be amplified. CAM therapies provide clinically efficient and cost-effective solutions to this growing dilemma. As Table 2 shows, evidence-based CAM treatment options have been shown to be effective in these chronic conditions.

Table 2: Treatment Options for Chronic Conditions

Condition	Evidence-based CAM Treatment Option
Asthma	The use of traditional Chinese Medicine (TCM) herbal therapy, as administered by acupuncturists and naturopathic physicians, is increasingly supported by scientific evidence for use in treating asthma. ^{xix}
Cancer	The UCLA School of Medicine found that by pre-treating chemotherapy with acupuncture, there was a significant reduction in nausea and vomiting. ^{xx}
Heart conditions	A team of A-list cardiologists from the UCLA School of Medicine found that acupuncture improved the health prospects of people with severe heart failure. ^{xxi}
Osteoarthritis	Research shows that supplements, such as glucosamine sulfate, as recommended by chiropractic and naturopathic physicians, might be effective not only in decreasing symptoms associated with osteoarthritis, but also retarding its progression. ^{xxii}

A health care delivery system should prioritize wellness and prevention; CAM is a vital piece of any health plan offering adequate health care services. The premise of CAM – treating the patient as a *whole* – aligns perfectly with the management of chronic conditions and, when integrated with conventional medicine, often produces results superior to conventional medicine alone.

Condition	Evidence-based CAM Treatment Option
Depression	A review by the Cochrane Collaboration of 29 trials concluded that Hypericum (St. John’s wort) extracts suggested by naturopathic physicians are as effective and have fewer side effects than standard antidepressants. ^{xxiii}
Type 2 diabetes	A study published in the Journal of Vertebral Subluxation research showed that blood and urine sugar levels improved significantly after receiving chiropractic care. ^{xxiv}
High blood pressure	The study “Medical Massage and Control of Arterial Hypertension” reported that somatic complaints disappeared, blood pressure normalized, and proper hemodynamics were restored with the use of massage therapy. ^{xxv}
Back problems	Clinical practice guidelines recommend considering the addition of non-pharmacologic therapy: <ul style="list-style-type: none"> • For acute low back pain, spinal manipulation; • For chronic or subacute low back pain, rehabilitation, exercise, acupuncture, spinal manipulation, relaxation, yoga.^{xxvi}

Bending the Curve

In order to make a true impact on the growing cost of health care in the U.S., we must focus on prevention and wellness. The complementary and alternative medicine (CAM) disciplines take the lead in this approach to health care delivery. As Dr. Mehmet Oz recently said, “Alternative medicine is not just another way of lowering your cholesterol, it is a different way of thinking about the role of health.”^{xxvii} Dr. Oz testified before Congress about how integrative medicine could mitigate the rapidly rising costs of health care. He makes the point that no health care reform can succeed unless Americans transform their lifestyle to avoid the diabetes, heart disease, and other preventable ailments that cripple the country financially as well as physically. Dr. Oz has studied with Dean Ornish, M.D. who has a program of diet, exercise, and meditation that has been shown to reverse heart disease. Dr. Oz also points to recent success he had putting “one meat-loving 53 year-old cowboy named Rocco on a vegan diet and reversed his diabetes in 28 days.”^{xxviii}

Recent demonstrations of reversals of chronic conditions as well as a concentrated focus on prevention of illness and wellness are promising gateways to bending the cost curve. This has been the cornerstone of the CAM disciplines. When a new patient sees a physician who is trained in integrative medicine, it is not uncommon for the visit to last an hour and a half. New patients can expect to be asked about medical history, diet, medications and supplements as well as about their lifestyle – including questions about faith and spirituality (to determine if they have a source of comfort and strength in difficult life phases), family and friends, and other components of support systems including the patient’s community. The objective is to get an idea of the overall lifestyle of the patient and how it may impact the patient’s health status. Tanya Edwards, Medical Director for the Center for Integrative Medicine at the Cleveland Clinic Wellness Institute, says, “We spend a lot of time trying to figure out the underlying causes”.^{xxix} In addition to being comprehensive in their intake exams, the integrative medicine approach is to continue to support and encourage lifestyle changes on an ongoing basis.

CAM providers use nutritional counseling and physical activity as tools to treat patients. A study conducted in 2001 called “Prevention of Type 2 Diabetes Mellitus by Changes in Lifestyle among Subjects with Impaired Glucose Tolerance” concluded that lifestyle changes which included diet and exercise as well as behavior modification reduced the chances of developing Type 2 diabetes in those at high risk by 58%. Comparing this result to drug therapy – Metformin – resulted in a 31% reduction in the risk of developing Type 2 diabetes.

With its focus on prevention and wellness, its success in treating chronic conditions in a manner which produces positive outcomes, and proven cost containment capabilities, it is clear that CAM should be playing a major role in the mitigation of health care costs and the increase in quality of care.

CAM approaches to care are highly individualized, have an emphasis on maximizing the body’s innate healing ability, involve patients as active participants in their own care plan, address not only the physical aspects of ill-health, but also the mental and spiritual dimensions of a disease, and most significantly, place a strong emphasis on preventative medicine.

Integration of CAM into Health Plan Design

The Asheville Project proved that changing behaviors of people with chronic conditions is possible and can produce positive fiscal results.^{xxx} By using plan design to encourage behaviors that create ultimate cost savings, the City of Asheville, North Carolina was able to change the behavior of its employees in the management of their diabetes. Health plan benefit design can influence behavior. And many companies are now developing “Value Based Insurance Benefits.” Given that it has been clearly demonstrated that CAM users produce significantly lower health care costs than nonusers, it stands to reason that a plan design incenting members towards an evidence-based, cost-effective method of care delivery that has positive outcomes and drives high patient satisfaction rates – CAM – would result in a healthier population of covered lives and, consequently, reduced claims costs.

The state of Washington has shown that CAM parity does not cause significant increase in utilization or claims costs. In an analysis of healthcare expenditures of insured patients who used CAM care,

Patients who use CAM providers for some of their care have lower expenditures as a group than a matched group of patients who do not use CAM

the researchers found that “patients who use CAM providers for some of their care have lower expenditures as a group than a matched group of patients who do not use CAM, and the difference in expenditures is related ... to less in-patient care and less use of high-tech imaging.”^{xxxii} Further, other studies have shown that CAM users cost less than non-users. Among these studies is a four-year retrospective claims data comparison of 700,000 health plan members with a chiropractic coverage benefit and one million members without the chiropractic benefit. The study results revealed that “systematic access to managed chiropractic care not only may prove to be clinically beneficial but also may reduce overall health care costs.” Those members with chiropractic coverage had fewer instances of low back surgery, fewer hospitalizations, fewer MRI’s and radiographs, and a lower average of back pain episode related costs.^{xxxii}

Benefit plan designs that encourage members to use CAM providers would reduce financial barriers to CAM care by offering lower deductibles and copayments with higher maximum benefits and reimbursements for nutritional supplements. Giving members options so they can make the best choices has resulted in positive fiscal outcomes for insurers in Washington. CAM therapies are non-invasive with few, if any, side effects. Additionally, there is an avoidance of pharmaceuticals and a financial benefit because CAM providers rely less on expensive diagnostic tools.

A Well-Managed CAM Panel

A well-managed provider panel will ensure cost control, member access, and high quality complementary and alternative medicine (CAM) care. This relieves payers from the burden of developing resources to manage CAM providers that are outside their traditional medical purview. Working with a trusted CAM organization allows payers to remain focused on their core competencies and leverage the benefits of well-managed CAM services, which in this environment of new and ever-changing regulation is a challenge.

It is essential to partner with an experienced CAM organization with a history of managing a network of credentialed CAM providers. There are a number of characteristics to look for in a high quality network. Those include but are not limited to:

- Credentialing providers to NCQA standards at a minimum;
- Ongoing provider education and sharing of best practices to advance evidence-based treatment;
- Practice management support to enhance administrative efficiency;
- Utilization management that is transparent to members, respectful of providers, assures medical necessity, and supports quality;
- Clinical quality management that drives continued improvement in health care; and
- Ability to administer a fully-integrated CAM and conventional benefit plan.

The CAM organization should have an organizational commitment to continuous quality improvement, with clinical values that align with those of its providers. Using NCQA as a base for the CAM organization assures alignment with nationally accepted requirements and expectations of payers; having programs that go beyond NCQA requirements establishes the CAM organization at a level of excellence in the industry. Clinical quality improvement programs conducted by the CAM organization show its commitment to furthering the body of research around the provision of CAM care.

An experienced CAM organization will have a history of finding the balance between its various stakeholders including providers, customers (health plans, employer groups, etc.), and members. Providers should be satisfied with and challenged by the relationship with the CAM organization to further the quality of care they provide as they enjoy the patient flow to their practices. Customers should see the CAM organization as a resource for CAM expertise, innovative benefit plan design concepts and CAM-related consultation. Members should enjoy barrier-free access to high-quality providers as part of their standard benefit plan with consistent satisfaction and positive treatment outcomes. Finally, in the ever-changing and complex world of health care, it is always best to find a partner that is focused uniquely in the CAM niche of the delivery system so you can be sure their focus and subsequent expertise will continue throughout the length of your relationship.

Conclusion

Complementary and alternative medicine (CAM) is increasingly being used by consumers along with conventional medical care. Further, research has demonstrated the clinical effectiveness of many CAM interventions and recent studies have shown that CAM is cost-effective. CAM providers can fill the ever-widening gap in primary care providers. While consumers, conventional providers, and health plans are increasingly recognizing the benefits of CAM care, the delivery system has yet to maximize the considerable cost, access, and quality advantages offered by CAM.

Effective management of CAM services through credentialing and quality and utilization management programs can support health payers in their search for value. Innovative plan design and collaboration between conventional and CAM providers on the health care team can enhance value by improving the quality and outcomes of care and, at the same time, constrain the rapid escalation of cost to the system.

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About The CHP Group

The CHP Group (CHP) is a complementary and alternative health care organization built on a network of credentialed CAM practitioners. CHP partners with health plans and employers to increase access to high quality CAM care. With over 20 years of industry experience, CHP provides clinical insight into the disciplines plus outstanding business expertise. CHP manages the provider network and provides administrative services in ways that enable health plans and employers to control costs while increasing overall quality.

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