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The Role of Chiropractic Care in the Patient-Centered Medical Home

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Executive Summary

Health care policymakers have recognized the importance of primary care to a high-functioning health system, and have integrated efforts to promote better primary care into a variety of public and private health reform initiatives (including the Patient Protection and Affordable Care Act). In many instances, these initiatives fall under the label "Patient-Centered Medical Home" or "PCMH," a model in which primary care providers (PCPs) take greater responsibility for managing patients' care.

The emergence of the medical home model creates an opportunity to define an important role for the Doctor of Chiropractic (DC) in the primary care setting. Most descriptions of the PCMH model include the following:

- Care should be "team-based" (these teams can be "virtual," i.e., practicing in multiple locations)
- Each member of the team should "practice to the top of his/her license." The physician should not spend time on care that could be delivered as effectively and more efficiently by other members of the team.
- The PCMH will need to manage referral patterns to outside providers. This is typically discussed in terms of referral to specialist physicians, but can also apply to referrals to other health professionals.
- PCMH payment models typically provide an incentive to lower patients' total costs of care.

This concept of team-based care in the PCMH suggests that PCPs and DCs should collaborate to deliver efficient and effective care for patients. This will be particularly important for patients with back pain, neck pain and headaches. Care for patients with these conditions is currently fragmented and would greatly benefit from increased care coordination. There is strong evidence that, for these health conditions in particular, chiropractic care produces outcomes that are as good or better, with lower costs and higher patient satisfaction compared to other health care delivery models. Given the high prevalence of neuromuscular and musculoskeletal conditions amenable to chiropractic care, effective PCMHs should aim to integrate chiropractic services into their care delivery process.

A clinical panel that included both Chiropractic Doctors and Medical Doctors guided the development of this paper, and supports its conclusions. This paper is intended as a "call to action" for DCs and other health professionals to work together to successfully care for patients. This paper generally focuses on the role of the DC as a member of the PCMH team, whether that is by referral, co-management of the patient, or leading the team depending upon the care environment. Numerous policies have been implemented that recognize the leadership role that DCs can play in delivering high-quality, efficient health care (see Appendix A). The paper also addresses many of the clinical and practical issues pertinent to collaboration between DCs and PCMHs. Finally, a second appendix to the paper addresses how PCMHs can work with DCs to meet the NCQA's recognition standards for the PCMH, which are used by numerous states and private organizations as the benchmark for PCMHs (see Appendix B).

Chiropractic Care Background

Chiropractic, as defined by the American Chiropractic Association, is a “health care profession that focuses on disorders of the musculoskeletal system and the nervous system, and the effects of these disorders on general health.”¹ While spinal manipulation is a large portion of chiropractic, (Doctors of Chiropractic deliver over 94 percent of the manipulations in the U.S.)², DCs also provide a substantial amount of other care and counsel to patients. Modalities such as heat, cold, electrical stimulation and rehabilitation methods are commonplace in chiropractic practice. Therapeutic exercises and general fitness recommendations are usually made to a majority of patients, and many receive advice about nutrition, vitamins, weight loss, smoking cessation and relaxation techniques.³ Chiropractic is a clinical discipline that encompasses much more than the single service of spinal manipulative treatment.

While utilization rates vary, approximately 6 percent – 12 percent of the population uses chiropractic care, mostly for low back pain. Patients typically do not visit a DC for organic disease or visceral dysfunction.⁴ According to a 2005 study by Simmons College in Boston, MA, levels of satisfaction with chiropractic care are high, 83 percent of respondents surveyed were satisfied or very satisfied with the level of care they received. Factors which contributed to high satisfaction rates included, “whether the DC orders and interprets laboratory tests, whether the DC displays concern about patient's overall health, and the extent to which the DC explains the condition and the treatment.”⁵

Most health care insurance policies provide coverage for chiropractic care. In addition to increased support from health care insurance for chiropractic services, there are a number of initiatives that support the use of chiropractic care for pain management. For example, the United States Army's Pain Management Task Force, through its PCMH model, supports the use of chiropractic care as an effective low back pain management tool. The PCP and DC play an important role in the Army's Pain Management Task Force of providing comprehensive, coordinated care to the patient.⁶

¹ American Chiropractic Association. About chiropractic. Obtained June 2, 2011 from http://www.acatoday.org/level1_css.cfm?T1ID=42.

² Shekelle PG et al. The Appropriateness of Spinal Manipulation for Low-Back Pain: Project Overview and Literature Review. Santa Monica, Calif: RAND, 1991

³ Meeker WC, Haldeman S. Chiropractic: a profession at the crossroads of mainstream and alternative medicine. *Ann Intern Med.* Feb 5 2002;136(3):216-227

⁴ Lawrence D, Meeker W Chiropractic and CAM Utilization: A Descriptive Review. *Chiropractic & Manual Therapies. Chiropractic & Osteopathy* 2007, 15:2

⁵ Gaumer, G. Factors Associated With Patient Satisfaction With Chiropractic Care: Survey and Review of the Literature. *Journal of Manipulative Physiological Therapeutics.* Volume 29, Issue 6, Pages 455-462 (July 2006)

⁶ Pain Management Task Force Final Report. May 2010. Office of The Army Surgeon General. Obtained June 1, 2011 from http://www.armymedicine.army.mil/reports/Pain_Management_Task_Force.pdf.

Chiropractic care has numerous benefits for the patient and is most commonly used for care of low back pain, neck pain and headaches.⁷ These three conditions are highly prevalent in the United States. In fact, the second most common reason for patients to visit a doctor is back pain.⁸ Two-thirds of people will experience neck pain in their life.⁹ Tension-type and cervicogenic headaches are two of the most common non-migraine headaches.¹⁰ Studies have confirmed the effectiveness and safety of chiropractic care for these conditions.¹¹ For example:

- A 2009 report stated, "When considering effectiveness and cost together, chiropractic physician care for low back and neck pain is highly cost effective, [and] represents a good value in comparison to medical physician care."¹²
- A 2010 study performed on Blue Cross Blue Shield of Tennessee's fully insured population found that after risk adjusting each patient's costs, episodes of care initiated with a DC were 20 percent less expensive than episodes initiated with an MD."¹³
- According to a 2004 article in *The Spine Journal*, spinal manipulative care for both chronic and acute lower back pain was more effective and provided more short-term relief than many other types of care, including prescription drugs, physical therapy and home exercise.¹⁴

The potential benefits of chiropractic care are not limited to back and neck pain. The Duke University's Behavioral and Physical Treatments for Tension-type and Cervicogenic Headache evidence report supports the use of non-pharmacologic treatments, such as physical treatments, for patients who:

- Have poor tolerance of pharmacological treatments
- Have medical contraindications for pharmacological treatments
- Experience insufficient relief from, or are unresponsive to, pharmacological treatment
- Wish to become pregnant (or are nursing)

⁷ American Chiropractic Association. What Is Chiropractic? Obtained June 2, 2001 from http://www.acatoday.org/level2_css.cfm?T1ID=13&T2ID=61

⁸ American Chiropractic Association. Back Pain Facts & Statistics. Obtained June 2, 2011 from http://www.acatoday.org/level2_css.cfm?T1ID=13&T2ID=68

⁹ Binder, A. Clinical Evidence Concise: Neck Pain. American Academy of Family Physicians. Am Fam Physician. 2005 Jan 1;71(1):117-118.

¹⁰ Evidence Report: Behavioral and Physical Treatments for Tension-type and Cervicogenic Headache. Duke University Evidence-based Practice Center. The Foundation for Chiropractic Education and Research. Obtained June 1, 2011 from http://www.chiro.org/LINKS/FULL/Behavioral_and_Physical_Treatments_for_Headache.html.

¹¹ Chiropractic Physicians: A Low Cost Solution to High Cost Healthcare. ACA Today. Obtained June 2, 2011 from http://www.acatoday.org/pdf/issuebrief_cost.pdf for a list of additional studies.

¹² Choudhry N, Milstein A. Do chiropractic physician services for treatment of low-back and neck pain improve the value of health benefit plans? An evidence-based assessment of incremental impact on population health and total healthcare spending. San Francisco: Mercer Health and Benefits; 2009.

¹³ Liliedahl, R, et al. Cost of Care for Common Back Pain Conditions Initiated With Chiropractic Doctor vs. Medical Doctor/Doctor of Osteopathy as First Physician: Experience of One Tennessee-Based General Health Insurer," *Journal of Manipulative and Physiological Therapeutics (JMPT)*, 2010.

¹⁴ Bronfort G, Haas M, Evans R, Bouter L. Efficacy of Spinal Manipulation and Mobilization for Low Back Pain and Neck Pain: A Systematic Review and Best Evidence Synthesis, *Spine Journal*, 2004

- Have a history of long-term, frequent, or excessive use of analgesic or abortive medications that can aggravate headache problems or
- Simply prefer to avoid medication use.¹⁵

In 2007, the American College of Physicians (ACP) and the American Pain Society (APS) released a set of guidelines for low back pain that recognized spinal manipulation to be of proven benefit for acute, sub-acute and chronic low back pain.¹⁶ These guidelines established spinal manipulation as the only non-pharmacologic approach endorsed for both acute and chronic low back pain.¹⁷ Evidence from two randomized clinical trials has demonstrated that chiropractic spinal manipulation is effective for cases of low back pain with disc-related leg pain. A team of Italian medical physicians led by Santilli found manipulation performed by DCs was effective for acute lumbar disc syndrome,¹⁸ while a team including one DC and three neurosurgeons¹⁹ found that 60 percent of patients who would otherwise have been sent to surgery were able to avoid surgical intervention and achieve outcomes equivalent to those who did receive surgery, as a result of chiropractic care.

The Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders, after an exhaustive evaluation of the scientific literature, published a series of reports on the diagnosis, treatment and management of neck pain in *The Spine Journal* in 2008.²⁰ For the most common forms of neck pain (nonpathologic, nonspecific), the Task Force recognized mobilization and other manual therapies of the kind routinely delivered by DCs, as part of an evidence-based approach, as follows: “For whiplash-associated disorders, there is evidence that educational videos, mobilization and exercises appear more beneficial than usual care or physical modalities. For other neck pain, the evidence suggests that manual and supervised exercise interventions, low-level laser therapy and perhaps acupuncture are more effective than no treatment, sham or alternative interventions.”

¹⁵ Evidence Report: Behavioral and Physical Treatments for Tension-type and Cervicogenic Headache. Duke University Evidence-based Practice Center. The Foundation for Chiropractic Education and Research. Obtained June 1, 2011 from http://www.chiro.org/LINKS/FULL/Behavioral_and_Physical_Treatments_for_Headache.html.

¹⁶ Elder Jr., W, et al. Managing lower back pain: You may be doing too much. *The Journal of Family Practice*. April 2009 Vol. 58, No. 4: 180-186.

¹⁷ Chou R, Qaseem A, Snow V, et al. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. *Ann Intern Med*. Oct 2 2007;147(7):478-491.

¹⁸ Santilli V, Beghi E, Finucci S. Chiropractic manipulation in the treatment of acute back pain and sciatica with disc protrusion: a randomized double-blind clinical trial of active and simulated spinal manipulations. *The spine journal: official journal of the North American Spine Society*. Mar-Apr 2006;6(2):131-137

¹⁹ McMorland G, Suter E, Casha S, du Plessis SJ, Hurlbert RJ. Manipulation or microdisectomy for sciatica? A prospective randomized clinical study. *J Manipulative Physiol Ther*. Oct 2010;33(8):576-584.

²⁰ Hurwitz EL, Carragee EJ, van der Velde G, et al. Treatment of neck pain: noninvasive interventions: results of the Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. *Spine*. Feb 15 2008;33(4 Suppl):S123-152.

Quality

The quality of care associated with chiropractic treatment of low-back pain, neck pain and headaches is high. Evidence-based studies suggest that the use of chiropractic care has equivalent or superior improvements to commonly used interventions for certain conditions.

Chiropractic care has been proven to be effective for the treatment of acute low back pain. According to a 2010 study published in *The Spine Journal*, spinal manipulation therapy (SMT) has equivalent or superior improvements in pain and function, “when compared with other commonly used interventions, such as physical modalities, medication, education or exercise, for short, intermediate and long-term follow-up.” The study notes these improvements occur after five to ten sessions over two to four weeks.²¹

A United Kingdom study in back pain exercise and manipulation (UK BEAM) evaluated the effectiveness of physical treatments of back pain. The study evaluated 191 general practices, 63 community settings in 14 centers in the United Kingdom. According to the study, manipulation followed by exercise resulted in a moderate benefit after three months and a small benefit after twelve months. Spinal manipulation alone achieved a small to moderate benefit after three months and a small benefit after twelve months.²²

According to the Duke University Evidence-Based Practice Center in Durham, NC, spinal manipulation is effective for the treatment of certain types of headaches. Spinal manipulation results in immediate improvements, fewer side effects and longer-lasting relief, compared with prescription medication.²³

Costs

A study conducted of members of the Alternative Medicine Integration’s (AMI’s) Integrative Medicine Independent Physicians Association (IPA) - an NCQA accredited HMO in metropolitan Chicago - suggests that the use of chiropractic care is cost effective. The research examined the cost and utilization pattern of members enrolled with chiropractic PCPs than those members who were enrolled with conventional PCPs using conservative medicine therapies alone. This study analyzed the clinical and cost utilization performance for the same health maintenance organization product (AMI’s Integrative Medicine IPA), in the same geography and time frame, based on 70,274 member-months over a seven-year period (1999-2005). The report concluded that among the members enrolled with chiropractic PCPs, costs decreased for hospital admissions (60.2

²¹ Dagenais, S, et al. NASS Contemporary Concepts in Spine Care: Spinal manipulation therapy for acute low back pain. *The Spine Journal*. Volume 10, Issue 10, Pages 918-940, October 2010.

²² Underwood, M. UK BEAM) Randomized Trial: Effectiveness of Physical Treatments for Back Pain in Primary Care. *BMJ*. 329 : 1377 doi: 10.1136/bmj.38282.669225.AE (Published 19 November 2004)

²³ Evidence Report: Behavioral and Physical Treatments for Tension-type and Cervicogenic Headache. Duke University Evidence-based Practice Center. The Foundation for Chiropractic Education and Research. Obtained June 1, 2011 from http://www.chiro.org/LINKS/FULL/Behavioral_and_Physical_Treatments_for_Headache.html.

percent), hospital days (59 percent), outpatient surgeries and procedures (62.0 percent), and pharmaceutical costs (85 percent) compared to those members enrolled with conventional PCPs.²⁴

A retrospective claims analysis from Blue Cross Blue Shield of Tennessee suggests that an episode of care initiated by a DC has 40 percent lower costs than episodes initiated by an MD. When the data was risk-adjusted, the episodes initiated by a DC had 20 percent lower costs than episodes initiated by an MD.

The study was conducted for claims between October 1, 2004 and September 30, 2006.²⁵ Patients were not limited to the number of visits to a health care professional and did not have a difference in copayments for the two types of providers. Low back pain claims were analyzed. A 60-day interval was defined as a new episode of care.

A 2004 study from the UCLA School of Public Health conducted a retrospective claims analysis to compare members with chiropractic coverage and without chiropractic coverage. The members with chiropractic coverage had significantly lower healthcare expenditures: \$1463 vs. \$1671 per member, per year. Members with chiropractic coverage had a 1.6 percent decrease in health care costs for the health plan due to lower utilization of plain radiographs, low back surgery, hospitalizations and magnetic resonance imaging.²⁶

A 2009 report entitled, “Do Chiropractic Physician Services for Treatment of Low Back and Neck Pain Improve the Value of Health Benefit Plans,” by Choudhry and Milstein concluded, “When considering effectiveness and cost together, chiropractic physician care for low back and neck pain is *highly cost-effective*” [italics in original article], represents a good value in comparison to medical physician care and to widely accepted cost-effectiveness thresholds. Because we were unable to incorporate savings in drug spending commonly associated with US chiropractic care, our estimate of its effectiveness is likely to be understated.”²⁷ The report also contrasted physical therapy care and chiropractic care and found chiropractic care to be more cost effective.²⁸

²⁴ Samat R, et al. Journal of Manipulative and Physiological Therapeutics. Clinical Utilization and Cost Outcomes From an Integrative Medicine Independent Physician Association: An Additional 3-Year Update. May 2007.

²⁵ Liliedahl, R, et al. Cost of Care for Common Back Pain Conditions Initiated With Chiropractic Doctor vs. Medical Doctor/Doctor of Osteopathy as First Physician: Experience of One Tennessee-Based General Health Insurer. *Journal of Manipulative and Physiological Therapeutics (JMPT)*. Volume 33, Issue 9, Pages 640-643 (November 2010)

²⁶ Legorreta, A, et al. Comparative analysis of individuals with and without chiropractic coverage: patient characteristics, utilization, and costs. *Arch Intern Med*. 2004 Oct 11;164(18):1985-92.

²⁷ Choudhry N, Milstein A. Do chiropractic physician services for treatment of low-back and neck pain improve the value of health benefit plans? An evidence-based assessment of incremental impact on population health and total healthcare spending. San Francisco: Mercer Health and Benefits; 2009

²⁸ Ibid

Relationship between DC, PCP, and Patient

Chiropractic care has also become increasingly popular with patients. According to a study conducted by the Palmer College of Chiropractic West, 94 percent of patients with acute neck pain reported that they were either satisfied or very satisfied with their care.²⁹ Despite high patient satisfaction levels and increased popularity of chiropractic care, many PCPs are reluctant to make a referral to a DC. The PCP will often refer a patient to a DC only if the patient inquires about chiropractic care. Additionally, some PCPs may be reluctant to refer a patient to a DC due to fear of malpractice litigation, threat of DCs to the PCP's practice or lack of knowledge about chiropractic care. In fact, almost 75 percent of PCPs had a patient that requested a referral to a DC, while only 30 percent made a formal referral to the DC.³⁰ It is essential to overcome these obstacles in order to build comprehensive, coordinated and collaborative health care for the patient. In fact, according to a 2009 practice analysis of the chiropractic profession, 99.3 percent of chiropractors surveyed reported making referrals to other health care providers and 98.3 percent reported receiving referrals.³¹

Since chiropractic care is proven to be clinically effective and cost effective, a strong relationship between PCPs and DCs will help to improve patient care and outcomes. The PCMH model will help to facilitate this collaboration.

The advancement of the PCMH fosters recognition of the patient-centered perspective in health care. Most often, a PCP will refer a patient for musculoskeletal problems, especially if they do not respond to conventional treatment.³² Patients do not need a referral from the PCP to schedule an appointment with a DC. Some insurance may, however, require a referral.³³

The lack of communication may be another barrier to the family physician/DC relationship. According to the 2000 study conducted by the Medical University of South Carolina, fragmentation in care between the DC and the family physicians exists. Family physicians receive information from the DC 26.5 percent of the time on a referral³⁴ and DCs receive information from the family physician 25 percent of the time. Both practitioners expressed concern about not receiving enough information regarding adverse health outcomes or treatment plans for shared patients.

²⁹ Haneline, M. Symptomatic outcomes and perceived satisfaction levels of chiropractic patients with a primary diagnosis involving acute neck pain. *J Manipulative Physiol Ther.* 2006 May;29(4):288-96.

³⁰ Greene, B, et al. Referral patterns and attitudes of Primary Care Physicians towards DCs. *BMC Complement Altern Med.* 2006; 6: 5. 2006 March 1. doi: 10.1186/1472-6882-6-5.

³¹ Practice Analysis of Chiropractic 2010, National Board of Chiropractic Examiners. Obtained June 15, 2011 from <http://www.nbce.org/publication/practice-analysis.html>

³² Greene, B, et al. Referral patterns and attitudes of Primary Care Physicians towards DCs. *BMC Complement Altern Med.* 2006; 6: 5. 2006 March 1. doi: 10.1186/1472-6882-6-5.

³³ American Chiropractic Society. Frequently Asked Questions. Obtained June 1, 2011 from http://www.acatoday.org/level3_css.cfm?T1ID=13&T2ID=61&T3ID=152#referral

³⁴ Mainous, A, et al. Fragmentation of patient care between DCs and family physicians. *Arch Fam Med.* 2000 May;9(5):446-50.

The PCMH model offers an opportunity to build stronger relationships between PCPs and DCs, by creating incentives for all providers to coordinate care and achieve the best patient outcomes for the lowest cost. According to Dr. James Holly, “In an Olympic relay race, if the baton is dropped, the team fails; if any member of your healthcare team drops your ‘healthcare baton,’ which is your plan of care and treatment plan, we will all fail.”³⁵

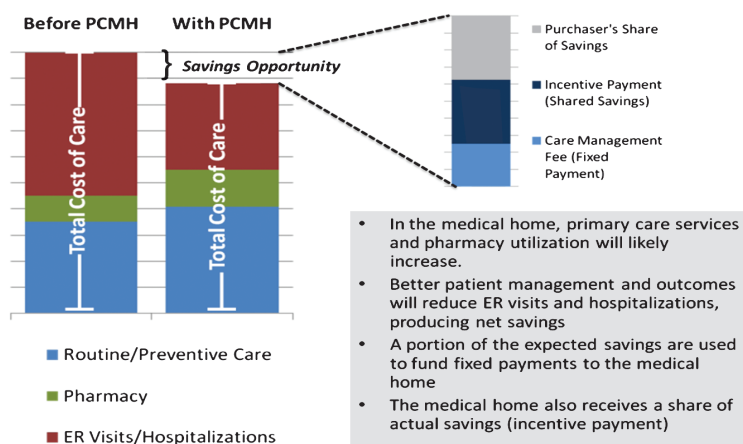
PCMH Overview

The Patient-Centered Medical Home (PCMH) is an approach to providing advanced, comprehensive primary care. The PCMH is a health care setting that facilitates partnerships between individual patients and their personal physicians, and when appropriate, the patient’s family. The PCMH model, supported by community health teams as defined in the Patient Protection and Affordable Care Act, is designed to streamline care, avoid redundancies, enhance clinical effectiveness and cost-effectiveness, and utilize the services of licensed health care practitioners in ways that best serve patients and extend the range of PCPs.

The Joint Principles of the Patient-Centered Medical Home makes a strong case for managing chronic diseases in a defined, systematic way. The principles emphasize coordinated care management, expanded access to primary care, a personal relationship with a PCP, integrated quality improvement and an interdisciplinary team-based care delivery model.³⁶ The PCMH is a model of practice in which a team of health professionals, guided by a PCP, provides continuous, comprehensive and coordinated care to patients throughout their lives. The PCMH provides for all of a patient’s health care needs, or collaborates with other qualified professionals to meet those needs. Participating practices provide patient-centered care through:

- Evidence-based medicine;
- Expanded access and communication;
- Care coordination and integration; and
- Care quality and safety.

Figure 1: PCMH Financial Model



³⁵ Presentation by Dr. Holly to the Patient-Centered Primary Care Collaborative, March 30, 2011. Obtained June 2, 2011 from <http://www.pcpcc.net/files/March30th/LarryHollyPanel5.pdf>

³⁶ American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American College of Physicians (ACP) and American Osteopathic Association (AOA); Patient-Centered Primary Care Collaborative. Joint principles of the patient-centered medical home. February 2007. <http://www.pcpcc.net/node/14>. Accessed July 6, 2010.

Most descriptions of the PCMH model include the following:

- Care should be "team-based" (these teams can be "virtual", i.e., practicing in multiple locations)
- Each member of the team should "practice to the top of his/her license." The physician should not spend time on care that could be delivered as effectively and more efficiently by other members of the team.
- The PCMH will need to manage referral patterns to outside providers. This is typically discussed in terms of referral to specialist physicians, but can also apply to referrals to allied health professionals.
- PCMH payment models typically provide an incentive to lower patients' total costs of care.

Health care policymakers have recognized the importance of primary care to a high-functioning health system, and have integrated efforts to promote better primary care into a variety of public and private health reform initiatives (including Patient Protection and Affordable Care Act).

The public and private sector have established demonstration projects and pilot programs designed to field the PCMH in communities, regions and states. Currently, some 27 multi-stakeholder pilots are underway in 18 states.³⁷ Many more pilots are set to launch later in 2011. On the public front, CMS is currently testing the PCMH model in the Multi-Payer Advanced Primary Care Practice (MAPCP) demonstration. CMS also plans to test the PCMH model under the Innovation Center created by Section 3021 of the Patient Protection and Affordable Care Act. What is unique about this demonstration is that all major payers in the state or proposed region (Medicare, Medicaid, as well as a significant representation of the large private insurers/managed care organizations) will be participating, thereby assuring the availability of sufficient resources to the primary care practice for implementation of the advanced primary care model. The following states were selected for the MAPCP Demonstration: Maine, Vermont, New York, Rhode Island, Pennsylvania, North Carolina, Michigan and Minnesota.³⁸

Throughout this paper, we assume that a PCMH is led by a Doctor of Medicine (MD) or Doctor of Osteopathy (DO), who is the PCP who manages the interdisciplinary team that includes the DC. However, in some settings, the DC may serve patients in the role of PCP. Appendix A reviews some of the relevant issues related to the role of the DCs as the PCP at the center of the medical home.

NCQA's PCMH Recognition Program and Important Conditions

One organization that assesses whether physician practices are functioning as medical homes and recognizes PCMH status is the National Committee for Quality Assurance (NCQA). The Physician

³⁷ Patient Centered Primary Care Collaborative (PCPCC). Pilot and Demonstrations. Obtained June 1, 2011 from <http://www.pcpcc.net/pcpcc-pilot-projects>.

³⁸ Multi-Payer Advanced Primary Care Practice Demonstration Questions & Answers – Updated April 12, 2011. CMS. Obtained June 1, 2011 from https://www.cms.gov/DemoProjectsEvalRpts/downloads/mapcpdemo_QA.pdf

Practice Connections – Patient-Centered Medical Home (NCQA PPC®-PCMH™) program builds on the joint principles as described above.³⁹

The standards and elements of the NCQA PPC®-PCMH™ program are detailed in Appendix B. It is important to note that some of the standards and elements revolve around the medical home choosing and then implementing evidence-based guidelines through point-of-care reminders for patients with up to three Important Conditions. An Important Condition is defined as a condition, including an unhealthy behavior, substance abuse or a mental health issue, with evidence-based clinical guidelines that affect a large number of people or consumes a disproportionate amount of health care resources. There are certain criteria an Important Condition must meet in order to be implemented at a medical home which are described in Appendix B.

Based on our research of current PCMH demonstrations, we have identified a PCMH implementation that incorporates low back pain as one of the three Important Conditions. This demonstration, through the Colorado Clinical Guidelines Collaborative (CCGC), provides an example of how the condition of low back pain is tracked, monitored and treated among the PCMH patients who have been identified as having low back pain. This also establishes the possibility of incorporating the use of chiropractic care to address the PCMH patients identified with low back pain by referring appropriate patients to a DC within the medical home’s provider community. The CCGC and implementation of low back pain as an Important Condition within the Colorado Multistate Multi-stakeholder PCC-PCMH program is described further in Appendix B.

Enhanced Payment Opportunities for the Medical Home

Enhanced payment to PCMHs are based on the expectation that medical homes, by providing expanded primary and preventive care, will save money by helping patients avoid unnecessary emergency room visits and hospitalizations. The basic PCMH financial model is illustrated in Figure 1. In a medical home, patients - especially patients with chronic illnesses - can benefit from comprehensive primary care services and can improve their adherence to recommended treatments (represented by the blue and green fields in the graph). As a result, fewer of these patients will have exacerbations of their conditions, and fewer will have avoidable, expensive ER visits and hospitalizations (represented by the red fields in the graph in Figure 1). The savings that result provide a funding mechanism for enhanced payment to the medical home. In a "shared savings" approach, some of the savings is retained

Figure 2: Typical PCMH Payment Model



³⁹ NCQA. Physician Practice Connections® - Patient-Centered Medical Home™. Obtained May 24, 2011 from <http://www.ncqa.org/tabid/631/Default.aspx>.

by the PCMH plan sponsor or other payer, while some goes to the PCMH participating practice. In addition, some of the medical home's share of savings can go to the fixed payment, and the remainder can go to the incentive payment.

The PCP that participates in the PCMH performs many additional duties to ensure coordination of care and the accuracy and completeness of the medical record. As such, he or she needs to be compensated for that extra effort. Physician practices participating in a PCMH program are eligible for additional payment enhancements. These additional payments can include the following types (see figure 2):

- A fixed payment intended to defray the practices' costs of providing the additional services of the medical home, such as those for care coordination and clinical care management.
- An incentive payment through which the practice shares in the actual savings achieved as the result of improved patient care.
- Physician practices will also continue to receive payment for services as they currently do, typically through fee-for-service contracts negotiated with health plans.

It is important to note that there is no single PCMH payment model that is identical across all programs. However, most PCMH payment models create incentives for PCPs to improve outcomes and lower patients' total costs of care. As such, there are good reasons for PCPs to include DCs as part of the care team.

Opportunities for Chiropractic Care in the PCMH

The inclusion of the DC in the PCMH represents an opportunity to transfer significant care components into the hands of a provider group with a unique focus and a unique skill set. An important element of the success of this inclusion is to allow the DC to function at the top of their license, bringing their strongest skills to the patient and the health delivery model. Depending on how a medical home defines its care pathways, DCs can advance patient care in a variety of ways:

- As neuromuscular and musculoskeletal specialists with direct patient access. Most chiropractic services in the United States are currently delivered in this way.
- As neuromuscular and musculoskeletal specialists, on referral from the PCP. This is the model under which DCs now work in the health care systems of the Department of Veterans Affairs and Department of Defense. This method is aligned with the team-based approach inherent in the PCMH.
- As PCPs who also deliver care to patients seeking help for non-musculoskeletal conditions.⁴⁰
- As providers of diagnostic and therapeutic prevention and health promotion services. This includes, but is not limited to, evidence-based diet and exercise counseling.

In many instances, these roles can complement one another. For example, in many Patient-Centered Medical Homes, DCs would function primarily as neuromuscular and musculoskeletal

⁴⁰ Some states expressly define DCs to be "physicians" or "primary care providers." Please refer to Appendix A for a fuller discussion of this issue.

specialists, with an emphasis on care for back pain, neck pain and headaches, while also being available to provide evidence-based exercise and diet advice for patients with conditions such as diabetes and cardiovascular disease. Some patients who receive such prevention and health promotion services from DCs would also be receiving chiropractic care for neuromuscular and musculoskeletal conditions, but others not receiving such care could benefit from diet, exercise, and other prevention and health promotion consultations provided by DCs.

In order to get an expert perspective on the role of chiropractic services in the PCMH model, we convened a Clinical Advisory Panel of MDs and DCs to offer their expert insights and ensure the development of appropriate, fair and effective patient care and referral patterns between the PCMH and chiropractic care settings. Members of the panel are listed below; their biographies are included in Appendix C.

Doctor of Chiropractic Panel		
Name	Position	Facility
Mark T. Zeigler, DC	President	Northwestern Health Sciences University
Steven Kraus, DC, DIBCN, CCSP, FASA, FICC	CEO and Founder	Future Health

Primary Care Physician Panel		
Name	Position	Facility
Tom Evans, MD	President	Iowa Healthcare Collaborative
John Hollingsworth, MD, MS	Assistant Professor, Department of Urology	University of Michigan Health Systems

The Panel provided guidance for the development of the paper, and supports the paper's conclusions on the following topics:

- Descriptions of clinical processes and indicators that could be used to refer patients from the medical home to a DC.
- Description of processes for ongoing coordination of chiropractic care with medical home activities.
- An analysis of the potential benefits of integrating chiropractic care into the medical home. Areas of focus can include quality outcomes and financial impact.
- Clinical options that PCMH participating physicians have to address back and neck pain for their patients (including the use chiropractic care).

For which clinical conditions should a PCMH refer a patient for chiropractic care?

According to the Panel, the three most common conditions for which a PCP will refer a patient to a DC are: neck pain, low back pain and headaches. PCPs should be aware of the existing literature that supports the effectiveness of manual spinal care for low back pain, neck pain and headache.

The PCP, as the center of the medical home, should focus teamwork, coordination and communication with the DC.

Further feedback from the Panel revealed that a PCP will refer a patient to a DC most often if the patient inquires about chiropractic or alternative medicine. However, in the team-based model of the PCMH, a PCP should also seek opportunities to proactively refer patients to community providers that can meet the patient's health needs.

What diagnostic characteristics are appropriate to refer to a Doctor of Chiropractic?

Low Back Pain: Whether a patient is referred to an outside specialist or treated in the practice depends on the patient's situation. Generally, chronicity, neurologic symptoms, responses to physical modalities and exercise programs would determine whether the PCP would refer a patient to a specialist or other health care professional. Specifically, a PCP would typically refer a patient with mechanical or non-specific low back pain to a DC or specialist. Evidence of systemic disease (neoplastic, infectious or primarily inflammatory cause), neurologic compromise, or social/psychological distress would prompt a referral to a specialist physician. The PCP would consider collaborating with a specialist, neurologist or DC. Some PCPs would integrate a nutritionist/dietician, acupuncturist, exercise physiologist, mental health professional, massage therapist or occupational therapist.

The majority of back pain is non-specific, and mechanical in origin. If the patient initially presents with non-specific back pain, the PCP should screen out organic origins of back complaint, such as differential diagnoses of infection, cancer and fractures. Barring these circumstances, and taking into account the preferences of the patient, the patient should be referred to a DC. The DC is able to provide, when clinically indicated, spinal manipulative care, mobilization and recommendations for self-management, exercise and lifestyle modifications, as indicated in best practice guidelines. Chiropractic care can be clinically and cost effective for patients. Patient satisfaction surveys have indicated the high-level of approval for chiropractic care.

Neck Pain: Whether the PCP would refer a patient to a health care professional depends on the patients' condition. Generally, a PCP would consider chronicity, neurologic symptoms and response to initial treatment on whether to refer the patient to a health care professional. Depending on the type of neck pain the patient presents with, the PCP would consider different health care professionals for referral. The PCP would consider referring a patient to a specialist or DC. In addition, some PCPs would refer a patient to a neurologist if the patient presented with specific types of neck pain, caused by "red flag" findings suggesting malignancy or an infectious condition.

Headache: The referral process of a patient to a specialist or DC depends on the patients' situation. Several types of health care professionals should be considered during the referral process, including: Neurologist, mental health professional, and DC. Some members of the Panel may also refer a patient to a nutritionist/dietician or acupuncturist.

Patients that present with mild to moderate intensity, bilateral, non-throbbing headaches without other associated features (i.e. tension-type) should be considered for referral. If a patient presents with presence of focal neurologic symptoms; absence of similar headaches in the past (i.e., the "first" or "worst" headache of their life); any change in mental status, personality or fluctuation in the level of consciousness; and those in the setting of chronic nasal stuffiness or chronic respiratory infection should be referred to a Neurologist.

When referral for headache treatment is being considered, the patient should be screened for "red flags" by either the PCP or DC. Red flags help identify secondary headaches, such as headache from an underlying medical condition or from systemic illness. Patients found to have primary headaches may be referred for chiropractic management.

What experience and qualifications does a DC need to have to be engaged with a PCMH?

The PCP will most likely refer a patient to a DC based on the network; however, other selection criteria are also applied, such as costs to the patient and provider's outcomes for management of low back, neck pain and headaches. One of the most important factors for referral is the personal relationship between the PCP and the DC. The emphasis is placed on building an ongoing relationship and focusing on collaboration. The care process is patient-focused, and revolves around selecting the appropriate care for the patient. The PCP may look at the scope of the practice, quality of care, level of experience and location to make a referral.

For low back pain, the Institute for Clinical Systems Improvement (ICSI) recommends that a physician consider the following criteria when making a referral:⁴¹

- Years of experience treating spine patients
- Volume of patients treated for spine dysfunction in the past year
- Number of referrals an individual provider receives on a regular basis
- Provides treatment interventions that include manipulation, exercise and education
- Average number of visits per episode of care for low back pain
- Percentage of patients who return to previous level of activity

While experience may be a consideration for both DCs and MDs as they seek to develop collaborative partnerships, newly established doctors of chiropractic also possess the education, training and research knowledge to fully understand the importance and relevance of adhering to valid evidence-based guidelines in their practice. Many graduates who associate with established practitioners will bring this experience to successfully embrace patient-centered models of healthcare.

⁴¹ Health Care Guideline: Adult Low Back Pain. Institute For Clinical Systems Improvement. Fourteenth Edition, November 2010. Accessed May 24, 2011 from http://www.icsi.org/low_back_pain/adult_low_back_pain__8.html

What is the process after the referral for patients with low back pain, neck pain or headaches?

DCs can manage a PCP's patients experiencing low back pain, neck pain and headaches within the PCMH model, resulting in a reduction of work load for the PCP. This management can occur through spinal manipulative care, recommendations for self-management and lifestyle modifications as per best practice guidelines. In order to have a successful management partnership, the DC must communicate and coordinate care for the patients that are referred to him or her.

The PCP expects that when a patient is referred to a specialist, the specialist and PCP should develop an ongoing coordination and communication process. The PCP expects to receive communication from the specialist regarding the consultation. This can happen through a variety of forms, including phone, e-mails or written letter. Updates regarding treatment and process should be communicated regularly. The referring provider should make their communication preference known, so the DC can comply with these requests. In order to increase this level of coordination or communication between the PCP and other health care professionals, to effectively manage the patient who presents with headaches, it is necessary to have common care goals and a common understanding of the care plan. An electronic health record (EHR) with a portal through which eligible providers can access would greatly facilitate this communication and coordination. The communication burden should not be placed on any one health care professional, as this is a collaborative process that involves two-way communication.

Conclusion

The PCMH is accountable for meeting each patient's physical and mental health care needs, including prevention and wellness, acute care and chronic care. Providing comprehensive care requires a team of care providers. This team might include: physicians, advanced practice nurses, physician assistants, nurses, pharmacists, nutritionists, social workers, care coordinators and DCs. Although some medical home practices may bring together large and diverse teams of care providers to meet the needs of their patients, many others, including smaller practices, will build virtual teams linking themselves and their patients to providers and services in their communities.

Our Clinical Advisory Panel identified general opportunities in the relationship between the PCP and DC in the evolving PCMH environment. The Panel provided expert insights and ensured the development of appropriate, fair and effective patient care and referral patterns, between the PCMH and chiropractic care settings. Through their feedback, we developed this paper to include the most common conditions that a PCP would refer a patient to a DC: low back pain, neck pain and headaches.

Medical home practices strive to build clear and open communication among patients and families, the medical home and members of the broader care team. As a member of the broader care team, the DC has many opportunities to become an integral part of the PCMH. These opportunities are detailed in this white paper and can serve as a starting point for a productive conversation between the PCP and DC for the referral of appropriate patients from the medical home to the chiropractic care setting.

Appendix A

The Potential Role of a Doctor of Chiropractic to Lead Primary Care

While this paper generally focuses on the role of the Doctor of Chiropractic (DC) as a member of the PCMH team, in some cases the care team may be led by a DC. Numerous policies have been implemented that recognize the leadership role that DCs can play in delivering high-quality, efficient health care.

DCs as PCPs

DCs can address the health care needs of all populations but there may be a unique opportunity for underserved or rural populations. Chiropractic patients in rural areas may be more likely than those in more urban locations to present with nonmusculoskeletal complaints.⁴² A high-level of satisfaction with chiropractic care and a strong DC–patient relationship may especially characterize chiropractic practices in rural, medically underserved areas. Chiropractic patients may typically use a DC as a first point of contact with the health system, particularly in rural areas.⁴³

Medical and chiropractic collaboration leads to cooperation with other primary care disciplines to improve health care delivery to rural populations. For example, DCs are providing a broad scope of health services in South Dakota, especially in rural areas, indicating that DCs serve as important resources to the South Dakota primary health care system. DCs and general practice Medical Physicians are increasingly complementing each other in the health care delivery system, especially in rural areas of the state. As such, each profession enhances the system's capacity to offer primary care.⁴⁴

In 2001, the HHS Secretary announced the Initiative on Rural America and charged the department-wide Task Force to explore ways to break down barriers and improve health and social services to rural America. The Task Force was coordinated by HHS' Office of Rural Health Policy, within the Health Resources and Services Administration (HRSA), and the Department's Office of Intergovernmental Affairs.⁴⁵ In response to this HHS initiative to address the issues of improving rural communities' access to quality health and human services, the American Chiropractic Association (ACA) recommended: 1) Designation of DCs as primary care providers; 2) Inclusion of

⁴² Hawk C, Long CR, Boulanger KT. Prevalence of nonmusculoskeletal complaints in chiropractic practice: report from a practice-based research program. *J Manipulative Physical Ther.* 2001;24:157–169. Accessed on April 13, 2011 from <http://www.ncbi.nlm.nih.gov/pubmed/11313611>

⁴³ Cherkin DC, MacCornack FA, Berg AO. Managing low back pain—a comparison of the beliefs and behaviors of family physicians and chiropractic doctors. *West J Med.* 1988;149:475–480. Accessed on April 13, 2011 from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1026519/>

⁴⁴ Barnett K, McLachlan C, Hulbert J, Kassak K. Working together in rural South Dakota: integrating medical and chiropractic primary care. *J Manipulative Physiol Ther.* 1997;20:577–582. Accessed on April 13, 2011 from <http://www.ncbi.nlm.nih.gov/pubmed/9436142>

⁴⁵ United States Department of Health and Human Services. The Rural Initiative – Introduction. Obtained April 24, 2011 from <http://www.hhs.gov/ruralinitiative/intro.html>

chiropractic in the National Health Service Corps; and 3) Full scope reimbursement status under Medicare/Medicaid.⁴⁶

The Joint Commission and Recognition of DCs as Physicians

The Joint Commission (JC), formerly the Joint Commission on Accreditation of Health Care Organizations (JCAHO), is a non-profit private organization that accredits health care organizations. The Joint Commission accredits and certifies more than 19,000 different health care entities through a fee-based credentialing process, in which hospitals participate.⁴⁷ Even though submitting an application to this private organization for credentialing is technically voluntary, from a practical perspective, failure to have Joint Commission accreditation could lead to negative consequences for the hospital since Joint Commission credentialing is the standard that all successful hospitals, including government facilities, attain.

The Joint Commission now recognizes DCs as physicians. The current list of JC-recognized physicians includes: Medical Doctors, Dentists, Podiatrists, Optometrists and DCs. DCs and Optometrists are recent additions.⁴⁸

Provisions in State Laws

At least two states include DCs in the definition of PCPs. In a recent PCMH law passed by the Iowa legislature and signed by the Governor, DCs are included in the definition of a PCP.

In Illinois, the term Primary Care Physician includes DCs as part of the definition. The Illinois law states: "Primary Care Physician means a provider who has contracted with an administrator to provide primary care services as defined by the contract and who is a physician licensed to practice medicine in all of its branches who spends a majority of clinical time engaged in general practice or in the practice of internal medicine, pediatrics, gynecology, obstetrics or family practice, *or a chiropractic physician licensed to treat human ailments without the use of drugs or operative surgery*" [emphasis added].

Recent Federal Legislation and its Impact on DCs

In addition, there are two federal acts that connect chiropractic care involvement to the PCMH delivery model:

The Patient Protection and Affordable Care Act (PPACA)

⁴⁶ Response letter to Secretary Thompson, Department of Health and Human Services from the ACA concerning the HHS Initiative on Rural Communities. Dated September 28, 2001. Accessed May 14, 2011 from http://www.acatoday.org/content_css.cfm?CID=235

⁴⁷ About The Joint Commission. The Joint Commission. Accessed May 12, 2011 from http://www.jointcommission.org/about_us/about_the_joint_commission_main.aspx

⁴⁸ Morgan, W. The Joint Commission Now Recognizes DCs as Physicians. American Chiropractic Association. Obtained May 18, 2011 from http://www.acatoday.org/content_css.cfm?CID=4038

DCs are named as potential members of Community Health Teams to support the development of medical homes and, as such, can be included as a discipline in community homes. Passed by Congress and signed into law by President Obama in March 2010, the PPACA includes legislation on the PCMH and the interdisciplinary teams of health care professionals that can be included. Specifically, Sec. 3502 of the ACA⁴⁹ discusses Community Health Teams within the PCMH.

The health teams will support PCPs in the entity's hospital service area in the creation of medical homes. The grants will provide capitated payments to providers. The primary care teams eligible for capitated payments may include: medical specialists, nurses, pharmacists, nutritionists, dieticians, social workers, behavioral and mental health providers, DCs, licensed complementary and alternative medicine practitioners and physician assistants.

Prospective community health teams eligible for capitated payments through Section 3502 will be required to:

- Submit plans for achieving long-term financial sustainability within three years
- Submit plans for integrating prevention initiatives, patient education and care management resources with care delivery
- Create an interdisciplinary health team that meets HHS standards
- Provide services to eligible patients with chronic conditions

The Health Information Technology for Economic and Clinical Health (HITECH) Act

Enacted as part of the American Recovery and Reinvestment Act of 2009, HITECH was signed into law in February 2009 to promote the adoption and meaningful use of health information technology. DCs are eligible for up to \$44,000 in incentives — beginning in 2011 — for meaningful use of a certified EHR system.

According to an article by Steven Kraus, DC, DIBCN, CCSP, FASA, FICC, many DCs are investing in EHR systems for two main reasons: 1) Federal encouragement of adoption via incentive payments (HITECH Act); and 2) Passing of health care reform legislation that names DCs as members of the community-based health teams of the PCMH (see ACA Sec. 3502 above).⁵⁰

Federal incentives to adopt an EHR system, as outlined in the federal HITECH Act, correspond well with DCs being part of the PCMH health team. The use of EHRs for patient-centric care in the medical home is an integral part of being a fully functional PCMH. DCs can capitalize on integrating EHR systems for both federal incentives and integration in the PCMH medical community. Dr.

⁴⁹ The Patient Protection and Affordable Care Act (PPACA). Signed into United States law by President Barack Obama on March 23, 2010. Obtained March 25, 2011 from http://www.healthcareDisclosure.org/docs/files/PPACA_Text.pdf

⁵⁰ Kraus, Steven. 'A Chiropractic Vision for the 21st Century,' *Dynamic Chiropractic*, June 17, 2010, Vol. 28, Issue 13. Accessed April 13, 2011 from <http://www.dynamicchiropractic.com/mpacms/dc/article.php?id=54710>

Kraus calls for the chiropractic community to engage in “universal adoption of EHRs; sharing of electronically generated practice data; and a systematic mining of that data for information on patient outcomes under our care.” By engaging in these three activities, Dr. Kraus envisions that the chiropractic profession will greatly benefit and grow to become “technologically modern, collaborative and willing to prove our outcomes with clinical data.”⁵¹

Appendix B

Managing Low Back Pain in Conformance with NCQA’s 2011 PCMH Recognition Program

The PCMH 2011 Recognition program is NCQA’s update of its PPC-PCMH standards released in 2008. This program recognizes eligible outpatient primary care practices for the duration of three years.

NCQA’s PCMH program is acknowledged as the primary standardized method for evaluating a practice’s capability of performing as a patient-centered medical home. Across the country, public and private payers, purchasers and clinicians have created pilot and demonstration programs. Many programs provide financial incentives, such as pay-for-performance and reimbursement for services beyond the patient visit, which have motivated primary care practices to engage in the transformation that leads to NCQA PCMH recognition. The expansion of the PCMH program has been rapid. As of the end of 2010, almost 7,700 clinicians at more than 1,500 sites across America used NCQA standards as a roadmap to become a patient-centric medical home practice and receive NCQA recognition as a PCMH.⁵² According to NCQA’s website, the number of practices has grown to 1,810 practices as of March 2011, showing a continued strong expansion.⁵³

NCQA’s PCMH Standards and Levels of Recognition

There are three levels of NCQA PCMH recognition; each level reflects the degree to which a practice meets the requirements of the elements and factors that compose the standards. For each element’s requirements, NCQA provides examples and mandates specific documentation. The NCQA recognition levels allow practices with a range of capabilities and sophistication to meet the standards’ requirements successfully. The point allocation for the three levels is as follows:

- Level 1: 35–59 points and all 6 must-pass elements
- Level 2: 50–84 points and all 6 must-pass elements
- Level 3: 85–100 points and all 6 must-pass elements

⁵¹ Ibid

⁵² New NCQA Standards Take Patient-Centered Medical Homes To The Next Level. NCQA news release January 28, 2011. Accessed May 24 from <http://www.ncqa.org/tabid/1300/Default.aspx>

⁵³ NCQA Website, homepage. Accessed May 24, 2011 from <http://www.ncqa.org/>

The Standards

The PCMH 2011 program's six standards align with the core components of primary care.

1. Enhance Access and Continuity
2. Identify and Manage Patient Populations
3. Plan and Manage Care
4. Provide Self-Care and Community Support
5. Track and Coordinate Care
6. Measure and Improve Performance

The Must-Pass Elements

Six must-pass elements are considered essential to the Patient-Centered Medical Home, and are required for practices at all recognition levels. Practices must achieve a score of 50 percent or higher on must-pass elements:

1. Standard 1, Element A: Access During Office Hours
2. Standard 2, Element D: Use Data for Population Management
3. Standard 3, Element C: Care Management
4. Standard 4, Element A: Support Self-Care Process
5. Standard 5, Element B: Track Referrals and Follow-Up
6. Standard 6, Element C: Implement Continuous Quality Improvement

PCMH Designated Important Conditions

NCQA's PCMH Standard 3, Element A tasks the medical home with implementing evidence-based guidelines through point-of-care reminders for patients with up to three chosen Important Conditions. An Important Condition is defined as a condition, including an unhealthy behavior, substance abuse or a mental health issue, with evidence-based clinical guidelines that affect a large number of people or consumes a disproportionate amount of health care resources.⁵⁴

To be considered an Important Condition, the condition selected by the medical home must be:

- I. The most prevalent diagnoses and risk factors seen by the practice
- II. The importance of care management and self-management support in reducing complications
- III. The availability of evidence-based clinical guidelines.

As noted above, Standard 3, Element C is a must-pass element. Under this element, the care team performs the following for at least 75 percent of the patients for the patients identified in Elements

⁵⁴ NCQA PCMH 2011 Appendix 3 – Glossary. Accessed May 24, 2011 from <http://www.ncqa.org/>

A and B (i.e. those patients with the (up to) three Important Conditions designated by the PCMH participating practice in Standard 3, Element A):

1. Conducts pre-visit preparations
2. Collaborates with the patient/family to develop an individualized care plan, including treatment goals that are reviewed and updated at each relevant visit
3. Gives the patient/family a written plan of care
4. Assesses and addresses barriers when patient has not met treatment goals
5. Provides patient/family a clinical summary at each relevant visit
6. Identifies patients/families who might benefit from additional care management support
7. Follows up with patients/families who have not kept important appointments

Low Back Pain as an NCQA Recognized Important Condition

One organization that has developed low back pain as an NCQA recognized Important Condition for the medical home is the Colorado Clinical Guidelines Collaborative (CCGC). The Colorado Clinical Guidelines Collaborative (CCGC) serves as the Convening Organization and provides technical assistance for the PCMH pilot practices in Colorado, including in-office coaching, learning communities and innovative technology. The pilot will be evaluated by Meredith Rosenthal, PhD from the Harvard School of Public Health to determine the effect on quality, cost trends and satisfaction for patients and their health care team.⁵⁵

Through the Colorado Multistate Multi-stakeholder PCC-PCMH program, diabetes, low back pain and cardiovascular disease have been identified as the three clinically Important Conditions for the participating practices. All three of these conditions meet the criteria of being an Important Condition that a PCMH practice can choose based on the NCQA criteria listed above.

As described further in Standard 3, Element A, the PCC-PCMH participating practice must adopt and implement evidence-based diagnosis and treatment guidelines for the Important Conditions. To this end, the CCGC chose to use the Institute for Clinical Systems Improvement (ICSI) Low Back Pain (Adult) Guideline, Fourteenth Edition, released in November 2010. The guideline states that "When low back pain is the primary complaint, request a non-surgical spine care specialist who demonstrates competency and interest in low back pain and in providing therapies based on continuing education and effective techniques supported by literature." Providers of chiropractic care are specifically listed as appropriate for such referrals.⁵⁶

⁵⁵ HealthTeamWorks. PCMH Pilot. Accessed May 24, 2011 from <http://www.healthteamworks.org/index.aspx>

⁵⁶ Health Care Guideline: Adult Low Back Pain. Institute For Clinical Systems Improvement. Fourteenth Edition, November 2010. Accessed May 24, 2011 from http://www.icsi.org/low_back_pain/adult_low_back_pain__8.html

Appendix C

Panel Bios

Steven Kraus, DC, DIBCN, CCSP, FASA, FICC

CEO and Founder

Future Health

Dr. Steven Kraus, DC, CCSP, DIBCN, FASA, FICC, is a practitioner, author and business owner. Since completing his DC from Palmer College of Chiropractic, Davenport, IA, in 1988, Dr. Kraus has owned 18 chiropractic practices, and is the founder and chairman of Future Health, an integrated office management and EHR software company.

Dr. Kraus is a past chairman of the Iowa Board of Chiropractic Examiners, past president of the Iowa Chiropractic Society, and past Iowa delegate for the American Chiropractic Association. He also has lectured and served on a panel of experts regarding the Iowa Medical Home legislation for the Iowa Chiropractic Society continuing education program. He also has been the owner of a large interdisciplinary practice with MD/DC/PT practitioners for 22 years.

Dr. Kraus thorough understanding of the chiropractic profession from both a business-to-consumer and a business-to-business aspect has proven invaluable. He has helped successfully sell nearly 400 chiropractic clinics nationwide from his previous consulting business in transitioning buyers and sellers together. With knowledge regarding building, marketing and selling chiropractic businesses, to his awareness of upcoming legislation, Dr. Kraus has been a leading proponent in elevating the chiropractic profession.

John Hollingsworth, MD, MS

Assistant Professor

Department of Urology

University of Michigan Health Systems

John M. Hollingsworth, MD, MS, is an Assistant Professor of Urology at the University of Michigan Medical School. As an Endourologist, Dr. Hollingsworth focuses clinically on providing high-quality and compassionate care for patients with urinary stone disease.

Dr. Hollingsworth is a graduate of the Robert Wood Johnson Foundation Clinical Scholars Program and one of only a handful of health services researchers in academic urology. The overarching goal of his research agenda is to improve the value of healthcare. His research focuses on three areas: 1) The role of physician financial incentives in health services utilization; 2) The effect of provider practice variation on healthcare quality and costs; and 3) Medical neighborhoods for specialty and primary care. The central findings of his work have been published in a variety of scientific and clinical journals, including: *Health Affairs*, *Health Services Research*, *Medical Care*, the *Lancet*, *Archives of Surgery*, the *Journal of the National Cancer Institute* and *Cancer*.

Mark T. Zeigler, DC

President

Northwestern Health Sciences University

Mark T. Zeigler, DC, a graduate of Northwestern Health Sciences University in 1980, officially assumed his duties as President of Northwestern Health Sciences University on September 1, 2006.

Prior to Northwestern College of Chiropractic, Dr. Zeigler attended the University of South Dakota and Iowa State University. Upon graduation from Northwestern in 1980, Dr. Zeigler established a private practice in Sturgis, South Dakota. Along with a busy practice, Dr. Zeigler became involved in the Sturgis community and in the city government. From 1982 to 1996, Dr. Zeigler served as a city council member. In 2001, he was elected as Mayor of Sturgis and served until resigning to accept the position of President at Northwestern Health Sciences University.

Dr. Zeigler was appointed to the South Dakota Governor's Health Care Task Force on Managed Care in July 1995 and was appointed to the Governor's Public Health Advisory Committee in May 1997. He was also appointed by the South Dakota Attorney General to the South Dakota Law Enforcement Standards and Training Commission in 2002. He has been on the Sturgis Regional Hospital Advisory Board since 1997.

Dr. Zeigler served on the Board of Directors of the South Dakota Chiropractic Association from 1986-1992 and served as its vice president from 1992-1994 and as its president from 1994-1996. He was the South Dakota delegate to the American Chiropractic Association from 1998-2006. Additionally, Dr. Zeigler was named the South Dakota DCs Association "DC of the Year" in 1998, and was named the "Alumnus of the Year" by Northwestern Health Sciences University in 2002. He served on Northwestern's Board of Trustees from 1996 to 2006, and was the Board chair from 2004-2006.

Tom Evans, MD

President

Iowa Healthcare Collaborative

Dr. Evans founded the Iowa Healthcare Collaborative in 2005. As President & CEO, Dr. Evans has worked to engage stakeholders in the healthcare sector to promote best practices and evidence-based medicine throughout the state. Dr. Evans is a past president of the Iowa Medical Society and the Iowa Academy of Family Physicians. As a former Chief Medical Officer of Iowa Health System, Dr. Evans was involved with a health literacy initiative and a diabetes project that resulted in a JCAHO Earnest A. Codman Award. Previously, Dr. Evans practiced family medicine in Johnston, Iowa



The Foundation for Chiropractic Progress embraces a mission of generating positive press for the chiropractic profession and increasing public awareness to the many benefits associated with chiropractic care.

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