Context for Understanding the National Demonstration Project and the Patient-Centered Medical Home

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ABSTRACT

This article introduces a journal supplement evaluating the country’s first national demonstration of the patient-centered medical home (PCMH) concept. The PCMH is touted by some as a linchpin for renewing the foundering US health care system and its primary care foundation.

The National Demonstration Project (NDP) tested a new model of care and compared facilitated and self-directed implementation approaches in a group-randomized clinical trial. The NDP asked what a national sample of 36 highly motivated family practices could accomplish in moving toward the PCMH ideal during 2 years within the current US health care payment and organizational system. Our independent evaluation used a multimethod approach that integrated qualitative methods to tell the NDP story from multiple perspectives and quantitative methods to assess and compare aspects that could be measured. The 7 scientific reports presented in this supplement explain the process, outcomes, lessons, and implications of the NDP.

This introductory article provides context for making sense of the NDP. Important context includes the evolution of the PCMH concept and movement, the roots of the NDP and how it developed, and both what is valuable and what is problematic about family medicine and primary care.

Together, the articles in this supplement show how primary care practices and the concept of the PCMH can continue to evolve. The evaluation depicts some of the early effects of this evolution on patients and practices, and shows how the process of practice development can be understood and how lessons from the NDP can inform ongoing and future efforts to transform primary care and health care systems.

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INTRODUCTION

This article and the journal supplement it introduces are about the promise of primary care, the growing frustrations of not meeting that promise, and the strategies recently envisioned to try to rediscover the lost promise. The supplement, which follows up on an earlier report,1 weaves together different threads about one recent particular part of the story, the implementation and evaluation of the National Demonstration Project (NDP) of the patient-centered medical home (PCMH).

SEVEN REPORTS THAT TOGETHER TELL A STORY

The NDP tested a new model of care and compared facilitated and self-directed approaches to implementing this model in a group-randomized clinical trial. The NDP asked what a national sample of 36 highly motivated family practices could accomplish in moving toward the PCMH ideal during 2 years within the current US health care payment and organizational system. The project was independently evaluated using a multi-
method approach that integrated qualitative methods
to tell the NDP story from multiple perspectives and
quantitative methods to assess and compare aspects that
could be measured. Collectively, the 7 reports/articles
in this supplement, listed in Table 1, explain the pro-
cess, outcomes, lessons, and implications of the NDP.

The first report explains the multimethod
approach required to evaluate the NDP. The use of
both quantitative and qualitative methods in a clinical
trial in which practices were randomized to facilitated
and self-directed implementation approaches enabled
an evolving intervention to be comprehensively
assessed and understood in a changing environment.
Ongoing feedback allowed the intervention team to
adapt their approach to emerging insights.

The next report portrays how the NDP unfolded
as seen by the independent evaluators. This article
shows how the concept of a new model of practice, the
personal medical home, changed as the TransforMED
implementation organization, the PCMH movement,
and the health care system evolved together during a
turbulent time in American health care.

The third report examines the degree to which
the wide range of NDP model components were
implemented. This article also compares facilitated
and self-directed practices on 3 practice-level outcomes:
the proportion of the NDP model components imple-
mented, the practices’ capability to make and sustain
change, and an aggregate measure of the patient’s
experience with the practice.

The fourth report brings to life the journeys expe-
rienced by the facilitated and self-directed practices
during the NDP. This article uses case descriptions to
explain variations in time, strategy, and resources that
enabled or limited practice development.

The fifth report assesses the effect of the NDP
intervention on patients and on the process of patient
care. Two complementary categories of quality of care
were assessed: patient report of multiple domains of
their experience of health care and medical record-
based measures of care for specific conditions and cat-
egories of care.

The sixth report describes new ways of under-
standing and approaching the practice development
process. This article aims to provide insight for those
who are planning and implementing change.

The closing report examines policy and prac-
tice implications of the NDP for those attempting to
develop primary care and the health care system to
improve health care, and ultimately the health, of the
people they serve.

The articles in this supplement, like the NDP itself,
must be understood in context. This context includes
the evolution of the PCMH concept and movement,
the roots of the NDP, and the value of and problems
with family medicine and primary care.

### Table 1. Evaluation of the AAFP’s First Patient-Centered Medical Home National Demonstration Project

| 7. Crabtree BF, Nutting PA, Miller WL, Stange KC, Stewart EE, Jaén CR. Summary of the National Demonstration Project and recommendations for the patient-centered medical home. Ann Fam Med. 2010;8(Suppl 1):s80-s90.8 |

AAFP = American Academy of Family Physicians.
in the Supplemental Appendix, available online only, at http://annfammed.org/cgi/content/full/8/suppl_1/s2/DC1. The Patient-Centered Primary Care Collaborative has brought together partners from large national employers, primary care physician associations, health care benefits companies, and patient and health care quality associations to advocate for and advance the PCMH. Recent federal and state legislation also is promoting the PCMH.

Currently, hundreds of PCMH demonstration projects are being conducted around the country. Some of these projects include various attempts at different ways of paying for primary care for recognized PCMH practices or, on occasion, for particular components of the PCMH. Amidst a measurement/accountability culture and widely perceived need to control costs, a tool developed by National Committee on Quality Assurance (NCQA) has become the de facto standard for recognition as a PCMH, despite concerns about its focus on technical aspects of practice that can be easily measured and the potential for unintended consequences from implicitly devaluing relationship aspects of primary care that are essential but more difficult to measure.

THE NDP IN CONTEXT

In 2002, 7 national family medicine organizations launched the Future of Family Medicine Project with a goal to "develop a strategy to transform and renew the discipline of family medicine to meet the needs of patients in a changing health care environment." Project participants conducted research, developed 7 reports, and acted on their recommendations. While reaffirming the "core values of continuing, comprehensive, compassionate, and personal care provided within the context of family and community," a major focus of the project’s research and policy development was a “New Model” of practice to accompany recommended health care system changes. The features of this new model emphasize a personal medical home that involves redesigned practices and can be seen online. The report also asserts that a “financially self-sustaining national resource will be implemented to provide practices with ongoing support in the transition to the New Model of family medicine.”

In 2005, this new national resource was launched as a wholly-owned subsidiary of the American Academy of Family Physicians, called TransforMED. In the fall of that year, an invitation was widely distributed inviting family practices to participate in a national demonstration project of the “New Model” of family medicine. In March 2006, 36 participating practices were announced and randomized to facilitated and self-directed intervention groups. In June 2006, the NDP project began. Its focus was on assessing the ability of practices to make transformative changes with help from a TransforMED facilitator or on their own. This project did not include payment reform, 1 of the 7 principles of the PCMH (Supplemental Appendix).

The authors of the current article were engaged early in this process as an independent evaluation team, funded by the American Academy of Family Medicine.

Table 2. A Brief History of the Patient-Centered Medical Home

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1967</td>
<td>The AAP introduces the medical home concept to coordinate care for children with multiple needs (expanded model with 13 elements was introduced in 2002)</td>
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<tr>
<td>1992</td>
<td>Barbara Starfield summarizes the evidence for the essential attributes of primary care for a high-functioning health care system (updated in 1998 and 2005)</td>
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<td>1996</td>
<td>The Institute of Medicine advocates development and sustained support of means to make primary care available to all Americans, and notes: “First, primary care is the logical basis of an effective health care system. Second, primary care is essential to reaching the objectives that constitute value in health care”</td>
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<tr>
<td>2001</td>
<td>The Institute of Medicine Crossing the Quality Chasm report calls for transforming a “fundamentally flawed” US health care system</td>
</tr>
<tr>
<td>2004</td>
<td>In the Future of Family Medicine Project, 7 family medicine organizations propose a “New Model” of care, the “personal medical home”</td>
</tr>
<tr>
<td>2005</td>
<td>TransforMED is created as a subsidiary of the AAFP to test the “New Model.” (The model evolves to encompass PCMH features, but includes no payment reform—key tenet of the PCMH)</td>
</tr>
<tr>
<td>2005</td>
<td>The Commonwealth Fund proposes a “2020 vision of patient-centered care” (and later begins funding pilot programs)</td>
</tr>
<tr>
<td>2006</td>
<td>The ACP proposes the advanced medical home, which includes principal care as well as primary care</td>
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<tr>
<td>2006</td>
<td>Medical home demonstration projects within Medicare are called for in the Tax Relief and Health Care Act, to be implemented by 2010</td>
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<tr>
<td>2006</td>
<td>The NDP is launched</td>
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<tr>
<td>2007</td>
<td>Four organizations (AAFP, AAP, ACP, AOA) jointly issue a statement on the PMH in February</td>
</tr>
<tr>
<td>2007</td>
<td>The Patient-Centered Primary Care Collaborative is launched in March</td>
</tr>
<tr>
<td>2007</td>
<td>The NCQA launches a tool—Physician Practice Connections—Patient-Centered Medical Home (PPC-PMH)—which preemptively become the de facto standard for recognition as a PMH</td>
</tr>
<tr>
<td>2008</td>
<td>WHO declares 2008 the year of primary health care</td>
</tr>
<tr>
<td>2009</td>
<td>Multiple pilot projects are in process and early findings begin to be published</td>
</tr>
<tr>
<td>2009</td>
<td>Incorporation of the PCMH in federal and state reform legislation increases, and the number of demonstration projects and individual practice and system efforts grows</td>
</tr>
</tbody>
</table>

AAP = American Academy of Pediatrics; AAFP = American Academy of Family Physicians; ACP = American College of Physicians; AOA = American Osteopathic Association; NCQA = National Committee on Quality Assurance; NDP = National Demonstration Project; PCMH = patient-centered medical home; WHO = World Health Organization.
Physicians and The Commonwealth Fund, and with the authority to publish findings without prior review by the sponsors. Using the methods overviews by Jaén et al.,2 we embarked on describing the process, outcome, and lessons of the NDP, and provided early insights from ongoing analyses to TransforMED, to inform the continued evolution of their work with practices. A previous report shared early lessons with the larger health care community.1

WHAT IS VALUABLE AND WHAT IS PROBLEMATIC ABOUT FAMILY MEDICINE AND PRIMARY CARE

Health care systems based on primary care have better quality,37 lower cost,37-39 less inequality in health care and health,25 38 60-65 and better population health.25 59 64 These attributes of primary care emerge from synergy among the following factors, known as the 4 pillars of primary care4,9,24,26,65-68:

- **Easy access to first-contact care:** accessibility as the first contact of patients with the health care system
- **Comprehensive care:** accountability for addressing a large majority of personal health care needs
- **Coordination of care:** integration and coordination of care in different settings, and across different domains that include acute and (often comorbid) chronic illnesses, mental health, disease prevention, and health promotion—guiding access to more narrowly focused care when needed
- **Personal relationship over time:** sustained partnership and personal relationship over time, with patients known in the context of their family and community (also known as continuity)

Among the many dysfunctions of the US health care system27 is its lack of focus on primary care.69-71 This devaluing of primary care has reduced its effectiveness to the point where the need for fundamental change is widely recognized.72 73 As others have noted, change is needed both within the primary care enterprise28 and in the larger system in which it is embedded.28 70 74

Primary care is the canary in the mine of the broken US health care system.87 Although there are hopeful exceptions,17 75-77 the current payment system9 79 and (mis)conceptualizations about what represents quality in primary care66-68 80 81 have engendered what has been called a hamster-on-a-wheel approach to care.82 83 In this fragmented health care environment,83 the focus of primary care has been distracted from the fundamental need for relationships with patients, communities, and other parts of the health care system.84 85 Primary care increasingly has narrowed the scope and place of its care, and diminished its availability at the times of patients’ greatest need.86-88 In addition, primary care often has been physician- and practice-centric in its approach, and has not sufficiently used technology, a team approach, and patient enablement to foster access, integration of care, and development of relationships.89-94 These are among the problems that the “New Model” and the PCMH are intended to resolve.

A WAY FORWARD

The articles in this supplement demonstrate that it is possible for highly motivated, largely independent practices6 to implement most of the predominantly technological components of the PCMH.4 This implementation results in improved indicators of chronic disease care as assessed from medical records, but at the cost of reducing the quality of key attributes of primary care as rated by patients, at least over the 26 months of the NDP.4 6 The project’s multimethod evaluation2 also shows that understanding the process of developing practices’ internal capabilities is critical to successfully managing change.5 7 As the PCMH continues to evolve, both practice and system reforms are needed to make it easier to integrate, personalize, and prioritize care for whole people, communities, and populations.8

To read or post commentaries in response to this article, see it online at http://www.annfammed.org/cgi/content/full/8/suppl_1/s2.

Key words: Primary care; family practice; National Demonstration Project; organizational change; quality improvement; patient-centered medical home; patient-centered practice; practice-based research

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In the self-directed group: DHMC, Community Health Center, Lebanon, New Hampshire; Carondelet Medical Group, Tucson, Arizona; Crossroads Family Practice, North Garden, Virginia; Duncan Medical Associates, PC, Duncan, Oklahoma; Harborwood Family Medicine at the Lakes, Muskegon, Michigan; Henry County Family Physicians, Inc, Napoleon, Ohio; Kollman Clinic, Inc, Dover, Ohio; Lifetime Family Medicine, Haymarket, Virginia; Neil A. Patterson, MD, PA, Oviedo, Florida; Olio Road Family Care, Fishers, Indiana; Piedmont Family Care, Piedmont, Oklahoma; Romeo Medical Clinic, Turlock, California; Seaport Family Practice, Belfast, Maine; and Sommerville Family Practice, PC, Midlothian, Virginia.

References


49. National Committee on Quality Assurance (NCQA). Planned Evolu-

50. O'Malley AS, Peikes D, Ginsburg PB. Qualifying a physician prac-
tice as a medical home. Policy Perspective: Insights into Health

Report of the task force on patient expectations, core values, rein-
tegration, and the new model of family medicine. Ann Fam Med.

3. Report of the task force on continuous personal, professional,
and practice development in family medicine. Ann Fam Med.
2004;2(Suppl 1):s55-s74.

Report of the task force on marketing and communications. Ann


task force on family medicine's role in shaping the future health-

55. Spann SJ; Task Force 6 and the Executive Editorial Team. Report

on financing the new model of family medicine. Ann Fam Med.

56. TransforMED. TransforMED—Transforming medical practices.
http://

57. Baicker K, Chandra A. Medicare spending, the physician workforce,

and beneficiaries' quality of care. Health Aff (Millwood). 2004;(Suppl

utilization among medical specialties and systems of care. Results

59. Lewin S, Lavis JN, Oxman AD, et al. Supporting the delivery of
cost-effective interventions in primary health-care systems in low-
income and middle-income countries: an overview of systematic

60. Starfield B. Primary care and equity in health: the importance
to effectiveness and equity of responsiveness to people's needs.

61. Rohde J, Cousins S, Chopra M, et al. 30 years after Alma-Ata: has
primary health care worked in countries? Lancet. 2008;372(9642):
950-961.

62. Ferrer RL. Pursuing equity: contact with primary care and specialist
clinicians by demographics, insurance, and health status. Ann Fam

63. Beach AC, Doty MM, Hernandez SE, Shea KK, Davis K. Closing the
divide: how medical homes promote equity in health care: results
from The Commonwealth Fund 2006 health care quality survey.
Fund-Reports/2007/Jun/Closing-the-Divide--How-Medical-Homes-
Promote-Equity-in-Health-Care--Results-From-The-Commonwealth-

64. Starfield B, Shi L, Grover A, Macinko J. The effects of specialist
supply on populations' health: assessing the evidence. Health Aff

65. Stange KC, Jaén CR, Flocke SA, Miller WL, Crabtree BF, Zyzanski SJ.

7(5):387-395.

198-203.