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Results of First National Demonstration Project to Implement Patient-Centered Medical Home Released

Practice change feasible but has potential trade-offs without system and payment reform

(LEAWOOD, Kan.) – In a special supplement, “Evaluation of the American Academy of Family Physicians’ Patient-Centered Medical Home National Demonstration Project,” *Annals of Family Medicine* reports on the results from the first large-scale national implementation of the patient-centered medical home concept in primary care practices.

Using a multimethod strategy to evaluate the change process in 36 diverse U.S. primary care practices, an independent evaluation team concludes it is possible to implement the technical aspects of the model in highly motivated practices. This implementation, conducted without larger health care system and payment reform, results in modest increases in disease-specific measures of quality of care, but also seems to worsen patients’ experience of care, at least in the short term. Outside facilitation of the change process buffers some of these negative effects.

The evaluation also shows that understanding the process of developing practices’ internal capabilities is critical to successfully managing change.

The authors conclude that 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.

Launched in 2006, the two-year NDP was funded by the American Academy of Family Physicians and The Commonwealth Fund, and was designed and implemented by TransforMED, a wholly-owned subsidiary of the AAFP. It was arguably the most ambitious of the early demonstration projects, attempting to implement within the current U.S. health care payment and organizational system nearly all of the medical home attributes outlined in the 2003 [Future of Family Medicine Project Report](#) and further articulated in the 2007 policy statement, [Joint Principles of the Patient Centered Medical Home](#) issued by the four major primary care professional organizations. The model includes elements of access, care management,

information technology, quality improvement, team care, practice management, specific clinical services and integration with other entities of the health care system and community. The PCMH has since become a rallying force behind multiple health care reform efforts and is guiding practice improvement in the United States.

Each of the eight reports in the supplement explains the context, process, outcomes, lessons and implications of the NDP from different perspectives.

- The first report by Stange et al, introduces the supplement and provides context for the project, including the evolution of the PCMH concept, the roots of the NDP and the opportunities and challenges facing primary care.
- The second report by Jaén et al, explains the multimethod approach used to evaluate the NDP.
- The third report by Stewart et al, portrays how the NDP unfolded as seen by the independent evaluators.
- The fourth report by Nutting et al, examines the degree to which the wide range of NDP model components was implemented and reports on practice-level outcomes.
- The fifth report by Nutting et al, brings to life the journeys experienced by the NDP practices.
- The sixth report by Jaén et al, assesses the effect of the NDP intervention on patients and patient care.
- The seventh report by Miller et al, describes new ways of understanding and approaching the practice development process, and provides insights for those planning and implementing change.
- The closing report by Crabtree et al, examines policy and practice implications of the NDP for those attempting to reform primary care and the health care system.

The NDP was designed to show how family medicine practices can be re-formed as part of larger reform efforts to improve the quality of U.S. health care. “Primary care is the canary in the mine of the broken US health care system,” writes Kurt C. Stange, M.D., Ph.D., evaluator and professor of family medicine, epidemiology and biostatistics, sociology and oncology at Case Western Reserve University. “Although there are hopeful exceptions, the current payment system and (mis)conceptualizations about what represents quality in primary care have engendered a hamster on a wheel approach to care.” The goal of the NDP was to show a new way forward.

The project’s independent evaluation team employed a multimethod evaluation strategy that used a wide lens and multiple perspectives to understand both the details and overall success of the transformative change process in the sample of 36 practices randomly assigned to either a facilitated or self-directed group. Practices in the facilitated group received an intense combination of on-site facilitation, learning sessions, and access to national consultants and pre-vetted vendors of a range of health information technologies. Final analyses were based on complete data for 16 facilitated and 15 self-directed practices.

The researchers report that practices in both the facilitated and self-directed groups were able to adopt numerous components from the NDP-model PCMH over 26 months. Practices that

received intensive coaching from a facilitator adopted more NDP-model components. Adopting these predominantly technical elements of the PCMH appeared to have a price, however, as average patient ratings of these practices' core primary care attributes slipped slightly, regardless of group assignment.

Specifically, they report that at baseline, facilitated practices averaged 17 NDP-model PCMH components in place (44 percent of all components) and self-directed practices averaged 20.1 components (52 percent of all components). At 26-month follow-up facilitated practices added an average of 10.7 components vs. 7.7 in the self-directed group. Some model components were more challenging and less likely to be implemented (e-visits, group visits, wellness promotion, population management and team-based care).

The self-directed practices were also successful in adopting model components, and practices in both groups ended up with just over 70 percent of model components in place. "The ability of many self-directed practices to make substantial progress suggests that not all practices need intense assistance," writes Paul A. Nutting, M.D., M.S.P.H., project evaluator and director of research with the Center for Research Strategies in Denver, Colo.

In terms of patient outcomes, adoption of more NDP components was moderately associated with improvement on all three outcomes assessed in medical records audits (an Ambulatory Care Quality Alliance score, a prevention care score and a chronic disease care score) at the 26-month follow-up. Examining condition-specific quality of care, researchers observed absolute improvements in AQA scores of 9.1 percent in the self-directed and 8.3 percent in the facilitated group. Absolute improvements in chronic care scores over 26 months were smaller – 5.0 percent in the self-directed group and 5.2 percent in the facilitated group and did not differ between groups. Absolute improvement in prevention scores was not statistically significant.

In contrast, there were no significant improvements in patient-rated outcomes including the four pillars of primary care (access, comprehensive care, coordination, and personal relationship), global practice experience, patient empowerment, or self-rated health status. In fact, there were trends for very small decreases in coordination of care, comprehensive care and access in both groups. Only a handful of the practices transitioned to relatively high levels of use of the NDP model's technical components while also maintaining high ratings of the practices from patients' perspective. Outside facilitation of the change process appeared to buffer some of the negative effects

"Slippage in patient-rated primary care attributes after the NDP began suggests that technical improvements may come at a price, at least in the short term," reports Carlos Roberto Jaén, M.D., Ph.D., lead investigator and professor at the University of Texas Health Science Center at San Antonio. "The intense efforts needed to phase in technical components may have temporarily distracted attention from interpersonal aspects of care."

Jaén posits that one potential explanation for the very modest changes in outcomes despite the practices' success in adopting PCMH components is that "it takes time and additional work to turn a new *process* into an effective *function*." "Two years," he suggests, "may not have been enough time to realize substantial improvement in the patient experience."

“The NDP experience suggests that for most practices it will take much more than anyone imagined to transform into a PCMH,” concludes Benjamin F. Crabtree, Ph.D. independent evaluator and professor at the UMDNJ Robert Wood Johnson Medical School. “Although it is theoretically feasible to transform independent practices in to the NDP conceptualization of a PCMH, doing so requires a lot of effort, motivation and support, and most practices will need additional time, resources and outside facilitation to achieve the magnitude of redesign envisioned in the PCMH.”

With this in mind, the evaluation team recommends lengthening the time allowed for the National Committee for Quality Assurance’s PCMH recognition process to five to six years so practices have more time to succeed.

In his article analyzing the practice change process, William L. Miller, M.D., M.A., with the Lehigh Valley Health Network, finds that a practice’s capacity for organizational learning and development, or *adaptive reserve*, is critical to managing the unrelenting, continual change required to implement the PCMH. Notably, none of the self-directed practices with limited adaptive reserve at baseline did well in implementing the NDP model components. This important finding suggests that strengthening adaptive reserve will serve practices well over the next decade as they continue transformation to a PCMH and adapt to rapidly changing demands of the health care environment.

Importantly, the authors point out that the NDP practices were not a representative sample of U.S. practices. They were highly motivated early adopters who are continuing to work to implement positive changes, even after two years. For most practices, the pace and magnitude of change experienced by the project participants would not be easily replicated.

Jaén cautions that any interpretation of NDP findings must bear in mind what the change strategy did not include – interventions to alter the delivery system beyond individual practices. None of the practices saw a change in their payment structure or enhanced reimbursement. “Without fundamental transformation of the health care landscape that promotes coordination, close ties to community resources, payment reform, and other support for the PCMH, practices going it alone will face a daunting uphill climb,” he writes.

“There must be simultaneous changes in an integrated model in what has been referred to as an optimal healing landscape,” concludes Crabtree. “The NDP findings must be interpreted in the context of what is being learned from other ongoing PCMH pilot projects that involve more radical reforms to the larger delivery system – reforms that place greater value on the essential role of primary care.”

The research team also calls for the continuing evolution of the PCMH model, which they contend overemphasizes technology at the expense of the four core principles of primary care. Current and planned demonstration projects, they assert, must retain a balance of fundamental features of the PCMH that melds the core principles of primary care, relationship-centered care, reimbursement reform, and the chronic care model, as well as the emerging information technology that supports these elements.

Furthermore, they point out the need for individual physicians to change their professional identity and the ways in which they deliver primary care. Training programs, they assert, need to adapt to include more collaborative team-based educational models with nurse practitioners, physician assistants, nursing staff and other health care professionals. And, medical school education needs to attend to the basics of leadership, teamwork, operations management and organizational behavior so future physicians are equipped to help the practices they join make transformational changes.

In her article, Elizabeth E. Stewart, Ph.D., project evaluator and now a senior scientist with the AAFP National Research Network, relates an interesting epilogue to the intensive two-year project. At the Project's final learning session where all the participants met face-to-face for the first time, an "NDP veterans" group organically emerged, expressing a desire to stay loosely connected. Coining themselves the Touchstone Group, these physicians and practice managers committed to keep in contact so they could reflect, support and learn from each other moving forward. Many also committed to reaching a broader audience by participating in public speaking and writing about their experiences.

Affirming the power of the transformation process, Stewart writes, "It was apparent that the Touchstone individuals had emerged from a profound, shared, life-changing experience, and were unwilling to return to pre-NDP ways of practicing medicine."

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Editor's Note:

To arrange an interview with one of the authors or for full-text copies of any of the embargoed articles included in the supplement, contact Angela Sharma at (913) 269-2269 or via e-mail at asharma@aafp.org. After publication, the full text of all articles will be available free at www.annfammed.org. *Annals of Family Medicine* welcomes diverse people with relevant experience or expertise to participate in online discussions of these studies at www.annfammed.org.

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