ANNALS OF FAMILY MEDICINE

Online Supplementary Material

Gabbay RA, Friedberg MW, Miller-Day M, Cronholm PF, Adelman A, Schneider EC. A positive deviance approach to understanding key features to improving diabetes care in the medical home. *Ann Fam Med*. 2013;11(Suppl 1):S99-S107.

http://www.annfammed.org/content/11/Suppl_1/S99

Supplemental Appendix. Key Contextual Factors and Noteworthy Contextual Changes

Key Factor	Description	Changes During the Study
Public policy	• Study focused on first of 7 regions in a 3-year statewide initiative led by state government and multistakeholder governor-appointed commission consisting of clinicians, payers, hospitals, health systems, business, labor, consumers, and state agencies • State government served as convener, providing antitrust protection to enable multipayer support for participating practices • State convened regional multistakeholder steering committee to design specific regional multipayer incentive package tied to NCQA PCMH recognition levels	• New state governor elected during the study; leadership transitioned from Governor's Office to state Department of Health; new administration took time to fully determine future directions • Study practices became eligible to participate in Medicare Advanced Primary Care Practice (multipayer) demonstration project near the end of the study to extend the initial 3-year participation agreement and multipayer incentives that were set to expire during the study; throughout most of the study, the sustainability of future funding was unclear
Practices	Study focused on the 5 most and 5 least improved primary care practices out of 25 total practices that were diverse in terms of size, type, ownership, specialty, population served, previous quality improvement experience, and health information technology (EHR, registry) capabilities • A Web-based patient registry system was offered free to practices that did not have an EHR or were unable to use their EHR for population management and data reports • One-quarter of practices were led by nurse practitioners in Federally Qualified Health Centers • All 25 practices were among the first to become recognized medical homes by NCQA in 2008-2009; at least Level 1 NCQA recognition was required in first year of the initiative • Practices recruited to participate by primary care clinician organizations, health plans, health systems, and state government • No participating practices dropped out over the 3-year intervention and evaluation	• 4 of the 10 practices that did not have an EHR at the beginning of the intervention implemented an EHR in the midst of the intervention • Practice participants developed strong bonds with one another, frequently contacting and meeting each other outside of learning collaborative sessions

Intervention	• Initial focus on improving diabetes care • Breakthrough Series style learning collaborative model with quarterly in-person meetings in first year, semiannual meetings in years 2 and 3, and monthly conference calls • Monthly reporting by practices on diabetes quality measures to national Improving Performance in Practice reporting and benchmarking system • Monthly narrative reporting by practices on Plan, Do, Study, Act testing and changes being made • On-site practice facilitation provided in first 2 years by state's Improving Performance in Practice program • Multipayer support based on NCQA recognition levels and participation in learning collaborative sessions • Expectation to implement practice-based care management	• Chronic Care Model was the initial focus of the intervention; over time, the intervention incorporated more elements of the PCMH • In second year, practices were encouraged to begin focusing on other chronic diseases and preventive care in addition to diabetes • Identification and care management of the highest-risk patients became a higher priority during the course of the study • On-site practice coaching was replaced by primarily telephonic and e-mail support by collaborative improvement advisor in third year
Health care system	• The 3 largest commercial insurers and the 3 Medicaid managed care organizations in the region provided multipayer support • Payments were made in quarterly lump sums based on clinician FTE and were directed and tracked by state government	• Health systems realized the significance of PCMH and began spreading the PCMH model to their other practices while increasing IT and other support for participating practices • The largest payer in the region changed its payment methodologies to incentivize NCQA PCMH recognition for all primary care practices during the second year of the initiative
Community	• Practices were located in the 5-county greater Philadelphia area in southeast Pennsylvania, which includes inner-city, suburban, almost rural, and underserved communities	• Practices increasingly collaborated with a variety of community resources
Patients	• Initial focus on all patients with diabetes, regardless of insurance • Inner-city practices and residency programs had high percentages of African American, Hispanic, and other minority patients	• More and more patients were affected as intervention spread beyond diabetes
Research team	• Multidisciplinary research team included practicing physician researchers, social science researchers, and a former practice coach who had established relationships with the sample of practices studied • Members of research team were and remained active in advancing PCMH in practices across Pennsylvania • Data collection occurred in third year of 3-year initiative, which required participants to recollect changes	• Primary Penn State research team collaborated with another research team at the University of Pennsylvania studying PCMH in same practices • Size of research team more than doubled following the collaboration noted above; multisite research team collaborated to jointly develop qualitative codebook and conduct qualitative analysis

NCQA = National Committee on Quality Assurance; PCMH = patient-centered medical home; EHR = electronic health record; FTE = full-time equivalent; IT = information technology.

Interpretation of Contextual Factors

For readers seeking to replicate either this study or the underlying statewide initiative, it is important to understand several key contextual factors, including the leadership of state government, multipayer support tied to NCQA recognition, and practice support through learning collaboratives and practice facilitation. It is worth noting the diversity of the participating practices in terms of size, type, ownership, specialty, population served, previous quality improvement experience, and health IT capabilities. The practices differed greatly in the sophistication of their patient populations as well as the internal and community-based resources they had to support their PCMH transformation.

Perhaps the most important contextual factor was the significant leadership provided by state government that brought all of the stakeholders together to develop a shared strategic plan for a regionally implemented, 3-year statewide initiative. State government serving as a convener also provided the antitrust protection that was essential to securing multipayer support for participating practices. The initiative secured sufficient support to sustain it through the transition to a new governor of the opposing political party. The new administration moved forward with the Medicare Advanced Primary Care Practice demonstration, which enabled the study practices to continue receiving multipayer support to advance their PCMH implementations.

Another contextual factor was the continual application of lessons learned during the initiative. There was a gradual shift from a Chronic Care Model focus to a broader PCMH model focus, as practices spread the changes they were making across their patient populations. As the other regional rollouts in the state occurred, many lessons learned from these initiatives were incorporated into the present region. In recognition of the need to demonstrate cost savings, or return on investment for participating payers, there was an increasing focus on identifying and providing practice-based care management services for the highest-risk patients. Near the end of year 2, with the sharing of deidentified practice benchmarking reports, some practices were not showing improvement in their diabetes data. In fact, as shown in Table 1 in this study, the lower-performing practices had lower performance at 18 months than they had at baseline. This finding led to the development of remediation plans for these practices to remain in the initiative.

Finally, there was considerable spread of the PCMH model beyond the study practices over the course of the study. During the initiative, the largest payer in the region changed its payment methodologies to incentivize NCQA PCMH recognition for all its primary care practices. In addition, health systems began to spread the PCMH model across their system practices as they realized the value of the PCMH in attending to readmissions and accountable care. As such, many of the study practices became models for other, nonstudy practices to follow.