

Health Care Transformation Initiatives in Type 2 Diabetes Care: A Qualitative Study in the Cincinnati Beacon Community

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The Beacon Community Program is part of a larger federal strategy to use health information technology (IT) as an enabling foundation for improving the nation's health care system (1). It was funded by the Health Information Technology for Economic and Clinical Health Act under the American Recovery and Reinvestment Act, which also provided significant funding to drive adoption and "meaningful use" of electronic health records (EHRs) (2,3).

Beacon Communities were encouraged to draw not only from health IT innovations, but also from other spheres, including quality improvement, payment reform, and consumer engagement (4,5). Thus, the focus in the Cincinnati, Ohio, Beacon Community was not only on technology, but also on the implementation of innovative strategies to transform care and improve outcomes. The Cincinnati program used the infrastructure of the Patient-Centered Medical Home (PCMH) model as a guide to realize the benefits of meaningful use (2,6), improve clinical outcomes, and redesign practice interactions and workflows (7).

Similar to other Beacon Communities, Cincinnati targeted type 2 diabetes for its improvement efforts (8). Specific aims included increasing the proportion of people with diabetes in compliance with the "D5," a National Quality Forum–endorsed composite measure indicative of diabetes control. The composite goals

include an A1C <8%, blood pressure <140/90 mmHg, LDL cholesterol <100 mg/dL, 1 aspirin per day as appropriate, and self-reported non-smoking status. Adherence requires all five goals to be met (9,10). Although project faculty enlisted basic improvement science methods that could be expanded to support work on any disease or condition, in this case, the interventions were tailored specifically to diabetes. Additionally, the project enlisted the PCMH framework as a marker of successful clinical and operational redesign and set a goal of 100% of practices recognized at a rating of Level 2 or above by the National Committee for Quality Assurance (NCQA). NCQA is one of several accrediting organizations using a standard application for PCMH recognition; it was chosen based on previous experience and payer support in the Cincinnati area.

Transformational Framework

Technical Support

As previously noted, the Beacon program was intended to be a technology-enhanced improvement project. It is important to recognize that the use of a health IT system is foundational for practice transformation because it enables measurement and monitoring of outcomes. However, health IT on its own does not ensure that a practice team will effectively use the available tools for clinical decision support (11).

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DOI: 10.2337/diaspect.28.2.132

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TABLE 1. Participants Interviewed for Evaluation

Group Interviewed	Number of Interviews	Number of Participants
Beacon project leadership	4	6
Health systems (Mercy, Tri-Health, University of Cincinnati, St. Elizabeth's, the Christ Hospital)	10	13 (6 hospital administrators and 7 providers)
Federally qualified health centers/freestanding clinics	1	1 (provider)

At the inception of the Cincinnati Beacon project, local practices had adopted EHRs from various vendors and were acquiring registries or data warehouses. There was notable disparity in end-user aptitude and adoption and a need for additional learning before true optimization could be claimed.

PCMH Recognition

The 2011 NQCA framework for PCMH is broken down into six standards covering the areas of access, population health, care coordination, self-management, referrals and tracking, and performance improvement. Each standard consists of a series of elements and factors that define required documented processes, measurable outcomes, and training responsibilities for which points are awarded (12). A recognition level is assigned based on total points achieved on a 100-point scale. The thresholds for recognition include a set of must-pass elements and a minimum of 35 points to achieve Level 1, 60 points to achieve Level 2, and 85 points to achieve Level 3.

Learning and Diffusion

The overall framework used to structure the Cincinnati Beacon Community included forming a learning collaborative for practices engaged in the transformation based on the Breakthrough Series Collaborative from the Institute for Healthcare Improvement (7). Coaching and instruction focused on three areas: 1) using improvement science methodology to improve the D5 diabetes measures (9), 2) meeting NCQA Level 2 PCMH standards (12), and 3) assisting physicians and medical staff in redesigning their practices

and maximizing each team member's full scope of practice.

Methods

Research Design

A qualitative design was employed in which two researchers used purposive sampling to conduct in-person individual and group interviews with key Beacon Community stakeholders (13). Those interviewed were asked to participate voluntarily and were not provided any compensation or incentive. This research was approved by the Western Institutional Review Board and the Cincinnati Children's Hospital Medical Center institutional review board.

Sample

A total of 15 interviews with 20 participants were conducted with administrators and providers in selected health care practices in the area's major health systems and community health centers. Participants included representatives from one Federally Qualified Health Center (FQHC) and all five health systems (primary care practices and hospitals), as well as three Beacon project leaders, each from HealthBridge and the Health Collaborative (Table 1). HealthBridge, a local health information exchange that received the Beacon Community award, is responsible for implementation efforts, including the facilitation of EHR adoption and achievement of meaningful use among providers. The Health Collaborative, a regional health improvement collaborative, is responsible for practice transformation, implementation of the PCMH model, and improvement in its diabetes-related measures.

Data Collection

Two semi-structured interview guides were devised: one for Beacon project leaders and one for health care providers. The interview guides were field-tested for flow and clarity of questions and adjusted before use. Interview questions related to the overall vision of the Beacon program and diabetes initiative, issues and challenges, successes, impact on patients and staff, and spread of the initiative to other practices. Interviews lasted between 45 and 75 minutes each and were audio-recorded and transcribed verbatim.

Data Analysis

All interviews were conducted before coding. A qualitative analytic software program, NVivo 9 (QSR International, Burlington, Mass.), was used to code and analyze the data. Interviews were separately coded by two researchers using both an a priori and an emerging codebook. An interrater reliability (kappa) measure of 0.85 was achieved, indicating high reliability. Common themes in both sets of interviews emerged and were summarized and analyzed.

Results

Development of a Diabetes Risk-Stratification Tool

One crucial approach to practice transformation was the creation of interdisciplinary, interactive, and easy-to-use tools to help practices test interventions toward improvement in the D5 measure and to meet the requirements set forth in the standards of the NCQA PCMH and meaningful use frameworks. Specifically, the tools were intended to help practices use population

RISK STRATIFICATION SCORING (Circle Patient Score)			
1. Patient A1C*	Points	2. Blood Pressure	Points
>9.0% or Unknown	7	Unknown	3
8.5% to 9%	6	SBP>160 or DBP>95	3
8.0% to 8.4%	5	SBP 140 to 160 or DBP 90 to 95	2
7.5% to 7.9%	4	SBP 130 to 139 or DBP 80 to 89	1
7.0% to 7.4%	2	SBP<130 or DBP<80	0
<7%	0		
3. Statin Use/LDL	Points	4. Tobacco Status	Points
Lipids not available	2	Unknown	1
Statin absent and LDL>100 or non HDL>130	2	Current every day smoker	1
Statin present and LDL>100 or non-HDL>130	1	Current some day smoker	1
Statin absent and LDL<100	1	Tobacco Positive (pipes, smokeless, etc.)	1
Statin present and LDL<100	0	Never Smoker or Recently Quit	0
5. PHQ-9 Score	Points	Scoring	Points
Unknown	3	1. Patient A1C	
> 14 (moderately severe to severe depression)	3	2. Blood Pressure	
10 to 14 (moderate depression)	2	3. Statin Use/LDL	
5 to 9 (mild depression)	1	4. Tobacco Status	
		5. PHQ-9 Score	
*Patient A1C: Points are based on the widely recognized goal of 7%. In some instances, this goal may not be warranted or safe in which case the goal would be set at 8% and all data sets would be adjusted upward (+1% to each parameter).		TOTAL	

RED ZONE
Maximum support needed.
Overall Stratification Score > 6

YELLOW ZONE
Moderate support needed.
Overall Stratification Score 3 to 6

GREEN ZONE
Minimal support needed.
Overall Stratification Score < 3

YES	NO	N/A	RED ZONE (Maximum Support Needed)
			Did you address the patient's readiness to change? If so, what stage is the patient? _____
			Did you address any known community barriers? If so, what are they? _____
			Did you enlist a specific visit or phone call follow-up strategy (recommended someone call patient 2 weeks before and after all encounters)? If so, who called the patient? _____
			Did you enlist a specific "no show" strategy (recommended someone call patient same day if no show)? If so, who called the patient? _____
			Did you enlist a specific follow-up strategy for ED/Admin alerts (recommended someone contact the patient within 24 hours to schedule an appointment and follow-up within 72 hours)? If so, who contacted the patient? _____
			Did you assist the patient with coordination of other care services during their visit? If so, what did you coordinate? _____
			Did you address the need for ongoing education and self-management support? Did you make a referral to a CDE? If so, to whom? _____ Did you schedule a class? If so, when/where? _____ Did you set self-management goals with the patient? If so, what are they? _____
			Did you address the need for increased frequency of visits to the MD? CDE? Other?
YES	NO	N/A	YELLOW ZONE (Moderate Support Needed)
			Did you consider assessing the patient's readiness to change? If so, what stage is the patient? _____
			Did you consider any known community barriers? If so, what are they? _____
			Did you enlist a specific visit or phone-call follow-up strategy? If so, who contacted the patient? _____
			Did you consider the need for education and self-management support? Did you recommend an encounter with a dietician? If so, who? _____ Did you schedule a class? If so, when/where? _____ Did you set self-management goals with the patient? If so, what are they? _____
YES	NO	N/A	GREEN ZONE (Minimal Support Needed)
			Do you anticipate any future problems with the patient? If so, what are they? _____
			Did you offer education and self-management support? Did you offer a class for new or recent onset patients? If so, when/where? _____ Did you offer an encounter with a dietician? If so, who? _____ Did you offer to set self-management goals with the patient? If so, what are they? _____

FIGURE 1. Diabetes risk stratification assessment tool.

A1C Risk Stratification Assessment

Patient A1C	Points
Above 8.0%	6
7.5% to 7.9%	4
7.0% to 7.4%	3
<7%	0

RED ZONE
Maximum support needed.
Overall Stratification Score > 6

YELLOW ZONE
Moderate support needed.
Overall Stratification Score 3 to 6

GREEN ZONE
Minimal support needed.
Overall Stratification Score < 3

YES	NO	N/A	RED ZONE (Maximum Support Needed)
			Did you address the patient’s readiness to change? If so, what stage is the patient? _____
			Did you address any known community barriers? If so, what are they? _____
			Did you enlist a specific visit or phone call follow-up strategy (recommended someone call patient 2 weeks before and after all encounters)? If so, who called the patient? _____
			Did you enlist a specific “no show” strategy (recommended someone call patient same day if no show)? If so, who called the patient? _____
			Did you enlist a specific follow-up strategy for ED/Admin alerts (recommended someone contact the patient within 24 hours to schedule an appointment and follow-up within 72 hours)? If so, who contacted the patient? _____
			Did you assist the patient with coordination of other care services during their visit? If so, what did you coordinate? _____
			Did you address the need for ongoing education and self-management support? Did you make a referral to a CDE? If so, to whom? _____
			Did you schedule a class? If so, when/where? _____
			Did you set self-management goals with the patient? If so, what are they? _____
			Did you address the need for increased frequency of visits to the MD? CDE? Other?
YES	NO	N/A	YELLOW ZONE (Moderate Support Needed)
			Did you consider assessing the patient’s readiness to change? If so, what stage is the patient? _____
			Did you consider any known community barriers? If so, what are they? _____
			Did you enlist a specific visit or phone-call follow-up strategy? If so, who contacted the patient? _____
			Did you consider the need for education and self-management support? Did you recommend an encounter with a dietician? If so, who? _____
			Did you schedule a class? If so, when/where? _____
			Did you set self-management goals with the patient? If so, what are they? _____
YES	NO	N/A	GREEN ZONE (Minimal Support Needed)
			Do you anticipate any future problems with the patient? If so, what are they? _____
			Did you offer education and self-management support? Did you offer a class for new or recent onset patients? If so, when/where? _____
			Did you offer an encounter with a dietician? If so, who? _____
			Did you offer to set self-management goals with the patient? If so, what are they? _____

■ FIGURE 2. A1C risk stratification assessment tool.

health interventions to risk-stratify diabetes patients, engage patients in goal-setting and self-management, educate patients on the effects of risk on their overall health, and provide historical records of both clinical and process interventions toward overall improvement in the D5. All of these concepts are crucial to effectively managing chronic illness, as well as necessary to satisfy the requirements of the NCQA PCMH application. Consistent with the Chronic Care Model (14,15), NCQA requires practices to use clinical decision support to risk-stratify patients by certain diseases or outcomes (NCQA Standard 3), support self-management (Standard 4), and employ the tenets of improvement science in tracking, testing, and analyzing changes over time (Standard 6).

Although the intention of the Beacon program and the NCQA PCMH application is largely to maximize the ability to mine EHR data for stratifying, EHRs are still disparate in their functional ability to perform these tasks. For this reason, efforts to coach and train practice teams on the workflows and benefits of risk-stratifying data proved to be challenging. At the time of the project, there were no systems or practices in the community that could readily access an electronic clinical decision support tool to risk-stratify for diabetes.

Working with faculty from Improving Performance in Practice, a national quality improvement consulting firm, the improvement coaching team evaluated an electronic algorithm that was built into the Legacy EHR system used by the University of North Carolina (UNC). The tool was used to stratify diabetes patients into high, medium, and low risk based on American Diabetes Association Diabetes Risk Test scoring (16). Acknowledging the technical challenges, the team created a paper algorithm called the Diabetes Risk Stratification Assessment, which mimicked the decision tree from the UNC tool (Figure 1).

This comprehensive tool was provided to all Beacon participants with coaching instructions on how to test the tool in practice to improve interactions with patients and patient outcomes. Although the tool was not yet available as an EHR function, efforts to utilize it properly also encouraged the use of the EHR as a clinical decision support tool. This included pre-visit planning, using scheduling and patient record functions to flag patients in the various risk areas, creating standardized documentation workflows in codified fields to capture treatment and self-management data that could be referenced in future visits, and introducing the use of patient portal outreach to provide more interaction opportunities with the at-risk population. Practice teams were coached on how to use the stratifying tool as a way to talk with patients about their individual risk. The intention was to engage patients and encourage a deeper understanding of the patient's own health status, as well as to help guide providers on considerations regarding adjusting treatment goals, encouraging self-management goals, and introducing community or educational resources to help guide patients' journey toward better health management.

Evolution and Adaption of the Risk Stratification Tool

The risk stratification assessment tool was tested using Plan-Do-Study-Act methods, a quality improvement approach that enlists small tests of change. Several practices made suggestions to improve its functionality.

Example 1: A1C Risk Assessment Tool

A three-provider practice affiliated with an academic health system expressed consistent concerns about time constraints. The practice requested that an abridged version of the tool be created to offset some provider resistance, accommodate completion as patients were shown to exam rooms, and focus solely on

A1C risk. An A1C Risk Stratification Assessment tool was created to meet that request (Figure 2).

Example 2: Patient-Facing Risk Assessment Tool

A large health system with several participating practices opted to use the tool to further patient engagement and requested a revised version that employed patient-friendly wording to allow the risk category to be shared with patients during the visit without causing them confusion or undue stress. This system later created an addendum to the tool that relayed patient-driven self-management goal suggestions based on risk category. After the Beacon project, the system adopted the tool more globally, which led to the creation of matching "dot phrases," or shortcuts, within the Epic EHR system, through which patients could identify and confirm their personal self-management goals. Once a goal was chosen, a member of the medical assistant staff would match the choice to standardized EHR documentation, and the provider and medical assistant team would interact with the patient to encourage achievement of the goal after the clinic visit. An even more enhanced version of the tool was created by this health system to add a complementary glucose scale to the document. The scale was intended to show the patient the relationship between A1C values and daily blood glucose levels. This was built into the EHR to be used as part of the after-visit summary to give patients a resource to help manage their blood glucose effectively between visits (Figure 3).

Example 3: EHR Chronic Care Management Tab with Risk Stratification

An FQHC that shares a centralized technical platform with a group of other FQHCs in the area recognized an opportunity to collect the relevant data on a care management tab and automatically calculate a composite score. A practice representative

RISK STRATIFICATION SCORING (Circle Patient Score)			
1. Patient A1C*	Points	2. Blood Pressure	Points
>9.0% or Unknown	7	Unknown	3
8.5% to 9%	6	SBP>160 or DBP>95	3
8.0% to 8.4%	5	SBP 140 to 160 or DBP 90 to 95	2
7.5% to 7.9%	4	SBP 130 to 139 or DBP 80 to 89	1
7.0% to 7.4%	2	SBP<130 or DBP<80	0
<7%	0		
3. Statin Use/LDL	Points	4. Tobacco Status	Points
Lipids not available	2	Unknown	1
Statin absent and LDL>100 or non-HDL>130	2	Current every day smoker	1
Statin present and LDL>100 or non-HDL>130	1	Current some day smoker	1
Statin absent and LDL<100	1	Tobacco Positive (pipes, smokeless, etc.)	1
Statin present and LDL<100	0	Never Smoker or Recently Quit	0
5. PHQ-9 Score	Points	Scoring	Points
Unknown	3	1. Patient A1C	
> 14 (moderately severe to severe depression)	3	2. Blood Pressure	
10 to 14 (moderate depression)	2	3. Statin Use/LDL	
5 to 9 (mild depression)	1	4. Tobacco Status	
		5. PHQ-9 Score	
*Patient A1C: Points are based on the widely recognized goal of 7%. In some instances, this goal may not be warranted or safe in which case the goal would be set at 8% and all data sets would be adjusted upward (+1% to each parameter).			
TOTAL		Points	

The relationship between your A1c level and your daily blood glucose level	
HgbA1c (%)	Blood Glucose
5	97
5.5	111
6	126
6.5	140
7	154
7.5	169
8	183
8.5	197
9	212
9.5	226
10	240
10.5	255
11	269
11.5	283
12	298

RED ZONE
Maximum support needed.
Overall Stratification Score > 6

YELLOW ZONE
Moderate support needed.
Overall Stratification Score 3 to 6

GREEN ZONE
Minimal support needed.
Overall Stratification Score < 3

I will...	RED ZONE
	Talk to my provider about barriers and/or challenges to managing my diabetes
	Call my physician directly following any ED visit or hospitalization
	Work with a Care Coordinator to help access additional community resources
	Attend an education class
	Make an appointment with a Certified Diabetes Educator
	Make an appointment with a Nutritionist
	Set an attainable self-management goal
	Use self-management tools at home
	Share my self-management goals with my spouse or caregiver
	Increase the frequency of visits with my provider
	Other:
I will...	YELLOW ZONE
	Talk to my provider about any barriers and/or challenges to managing my diabetes
	Work with a Care Coordinator to access additional community resources
	Attend an education class
	Consider an appointment with a Certified Diabetes Educator or Nutritionist
	Set an attainable self-management goal
	Use self-management tools at home
	Other:
I will...	GREEN ZONE
	Talk to my provider about potential barriers and/or challenges to managing my diabetes
	Uphold my self-management goals
	Attend an education class
	Other:

■ **FIGURE 3.** Patient-facing risk stratification assessment tool.

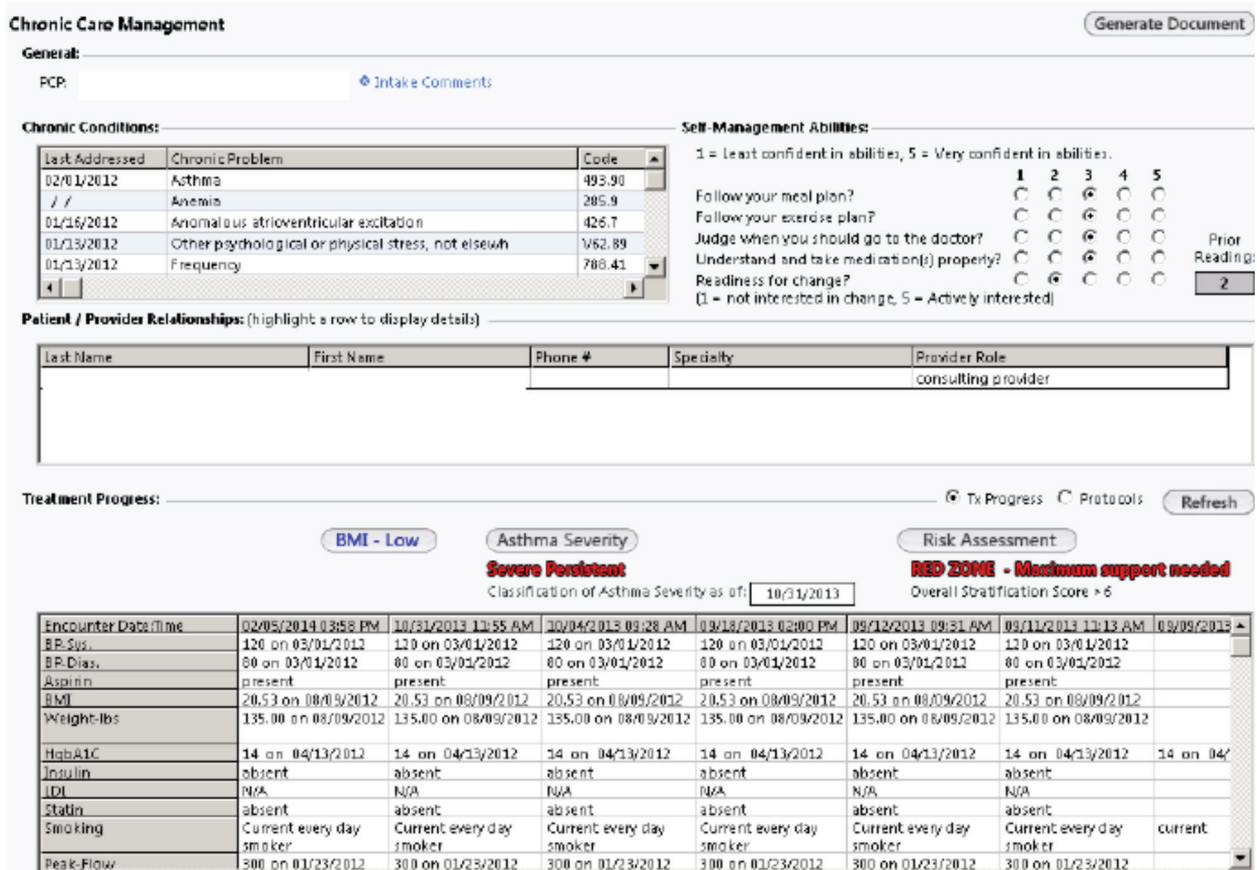


FIGURE 4. EHR chronic care management tab with risk stratification.

worked directly with the EHR IT vendor to have the risk tool hardwired into the NextGen EHR. The tab and corresponding composite score are now available for use by all those on the centralized platform (Figure 4).

All three of these examples illustrate a commitment to the core competency of risk stratification, with varying degrees of technical support. Our experience throughout the Beacon project was fraught with similar examples of varying adoption and evolution, which forced us to enlist a flexible approach to implementation and use, with a heavy emphasis on crucial concepts. Using methodological approaches developed in the Breakthrough Series Collaborative framework (7), participants were encouraged to share their experiences with the tools and best practices that had been developed. Important provider, patient, and staff lessons were

gathered and summarized during in-person learning sessions, on monthly calls, and during in-practice coaching. This process contributed to the documentation required to show that efforts were made to provide patient-centered care, as defined in the NCQA requirements.

Recognition Outcome

All participating Beacon practices received NCQA PCMH Level 3 recognition, the highest level of distinction. The focus of this article, the diabetes risk stratification tool, is just one of many resources provided to help teams not only meet NCQA requirements, but also promote meaningful and sustainable practice transformation. Teams that participated in the development and use of the risk stratification assessment tool could effectively account for NCQA application required elements 1G5, 1G6, 1G8, 2D2, 3A1, 3A2, 3B1, 3C1, 3C2, 3C4, 3C6, 4A3, 4A5,

4A6, 4B4, 6A2, 6C1, 6C3, and 6D1 (17).

Participant Reactions and Common Themes

Worthwhile Change
 Surveyed providers across all groups indicated that they emphatically believe that the effort to transform practices, although extensive and time consuming, was definitely “worth it.” Most respondents, especially those in practices that had already attained PCMH Level 3, not only believed that care had been transformed, but also were confident that they could sustain the practice changes. Respondents noted that their whole practice was involved in the changes and that, as a result, the whole practice was invested in sustaining the changes. Furthermore, and perhaps most importantly, respondents believed strongly that their practices functioned better and that care was

markedly improved. They wanted to sustain these positive results and reported having had an “ah-ha” moment when they transitioned from “checking the boxes” to show that they had fulfilled requirements for various elements of the PCMH application to actually transforming care.

Impact on Patients and Staff

Providers reported that care transformation meant, among other things, that they were able to go beyond care for individual patients and were now concerned about being able to manage care at a population level. According to respondents, it also meant that practices redesigned the care they provided to ensure that all staff could take on as many and as advanced a set of duties as their licenses permitted. One hospital administrator said, “It’s really about how we engage the patient better, give them the right care at the right time, at the right place, as well as having all the members of my team working to the highest level of certification. If I do that, then I’m going to have happier physicians . . . and keep other folks engaged longer.” A provider said, “I believe some of our [medical assistants] at times were frustrated by their role of calling patients back . . . and getting in and out of a room as fast as you can. Now, it’s going in there, talking about medications, asking questions, verifying their med list, going through their goals . . . before the doctor gets in. It makes my job easier. It makes my visit more useful.”

Spread to Other Practices

Some of the large health systems indicated a strong desire to spread the PCMH framework and accompanying tools from the Beacon project sites to others within their organizations. One system in particular was recently approved by the Centers for Medicare & Medicaid Services to participate in the Accountable Care Organization (ACO) program and believed, based on its pilot study, that practice-level work to attain

PCMH status across the ACO would allow for the improved care and generate the savings needed for the ACO program. As one administrator said, “PCMH pertains specifically to the practice, whereas ACO pertains to the larger delivery system. I think many PCMH’s foundational elements used in transforming a practice apply to ACOs, which reaches a broader range of physicians and providers.”

Value Proposition

Administrators and providers indicated that they believed perceived value is one of the most important determinants of success and spread; providers have to think an effort is an important innovation, improves quality, and does so substantially enough to be worth the effort. Based on the qualitative feedback summarized above, we were able to identify several interventions that may have contributed to the positive reactions received from participants and to describe one representative example in detail.

Discussion

The current system of health care delivery is in need of transformation to improve the quality and lower the cost of care provided. This article examined processes for care transformation in selected practices in one Beacon Community. As part of this effort, resources and a process for implementing the transformation were developed and carefully documented. Tools were developed to help practices produce the documentation required to meet PCMH standards using interventions targeted to improve type 2 diabetes care. The success of practices in realizing improvement in diabetes outcomes, through the use of clinical decision support tools as a fundamental element of the PCMH model, was at the heart of this transformation.

Respondents in this study reported that the effort was “worth it,” while also acknowledging the significant time required to test new ideas and tools. Successfully spreading the

transformation to other practices, as is the goal for health systems in Cincinnati, will depend in part on a structured, well-documented set of resources and protocols that can be deployed in a standardized way across practices. A strategy will also be needed to introduce transformative processes that might improve outcomes, even in settings in which EHRs and other technological supports are not available or not yet amenable to incorporating the necessary changes.

There is a growing body of literature on the importance of having a structured, consistent approach to implementing innovations (18,19). Research reports and published descriptions of resources and protocols developed to promote ambulatory care improvement and to introduce the concepts of clinical decision support are relatively new. Thus, one contribution of this article is the description it provides of components of the care transformation process in conjunction with a defined improvement effort, which can then be used to transform other practices in other settings. It should be noted, however, that, although structured protocols and resources are necessary to ensure consistency of implementation, the process of care transformation will still be a time-consuming one for new practices. As implementation of PCMH standards and care transformation efforts roll out, this will be important to monitor so that communities know not only what they might expect in terms of quality and utilization improvements (11,20,21), but also what level of effort will be required to realize such a transformation.

Despite widespread hopes that improvements in technology would be the main drivers of the care transformation effort, this has not always happened, and certainly was not the case during the Beacon project. EHRs alone did not readily provide necessary practice workflows and were not useful for comprehensive man-

agement of the diabetes populations included in the project. Regardless of these technology challenges, teams were offered practical solutions that reinforced the concepts of clinical decision support and contributed to improvement in diabetes care.

The future of community-level care transformation through interventions such as the one described here rests on participants' ability to sustain the transformation within their practices and to encourage its spread. The positive changes brought about by the transformation efforts described here are a starting point; to fully maintain, sustain, and spread the transformation, stronger technology supports will be needed, as well as payment reform that rewards improved outcomes (11,20,21). It is important to recognize that many of the key concepts of practice transformation require targeted tools to ensure that health care staff can assimilate the knowledge and apply the concepts in practice. Cincinnati practices and health systems are beginning to introduce various payment reform strategies. These, together with the meaningful use, PCMH, and care transformation processes that began as part of the Beacon Community project, may be the key ingredients to ensure broader and more sustainable improvements in patient care and outcomes.

Acknowledgments

The authors thank the practices and hospitals involved in this research and the following people for their contribution to this work: Pattie Bondurant, MN, RN, MHA; Darren DeWalt, MD; Nathan Diller, MHSA; Robert Graham, MD; Melissa Kennedy, MHA; Mark Wess, MD, SM; and Mary Zile, RN.

Duality of Interest

No potential conflicts of interest relevant to this article were reported.

Funding

This project was supported by a Beacon Community grant to Cincinnati, Ohio (grant 90BC00116/01), funded by the Office of the National Coordinator for Health Information Technology.

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