Innovation in Physician Practices:
13 Case Studies to Guide Michigan Physicians

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Introduction

This series of case studies profiles diverse primary care physician practices to capture the actual experience of Michigan physicians as they made the decision to implement patient care innovations in their offices, most often resulting in designation as a patient-centered medical home (PCMH). We hope that these case studies are rich and varied enough for a physician to say of at least one, "Yes, that's like my practice and that's where I am right now in my thinking about innovation and PCMH."

These case studies vary by practice size and practice location. They also vary by the level of supportive infrastructure the practices had in place as they moved toward PCMH designation. Many have had an electronic medical record (EMR) in place for years; others implemented an EMR as a tool to achieve designation; others still do not have an EMR, but have implemented an electronic patient registry. In some cases, the current set-up of the office lends itself well to PCMH innovations; in others, major rearranging of the office—or a new office—has been deemed necessary. And, not surprisingly, the practices have experienced varying degrees of provider and staff support for the implementation of PCMH innovations.

While frustration with some aspect of PCMH designation is common, all of the providers interviewed declare that patient care in their offices has improved since putting the required innovations in place. This is true even for the several physicians and office staff who claim that a primary driver behind their decision to seek designation was that they were already providing care consistent with PCMH requirements.

Each case study describes:

- The practice size and location
- The practice's decision to innovate in the delivery of patient care
- The transition from current practice to PCMH
- The response of providers, staff, and patients to the innovations
- The financial and other resource implications of PCMH
- How the providers and staff envision their practice's future with PCMH

Public Sector Consultants (PSC), a Lansing-based public policy research firm that has worked with the Michigan State Medical Society (MSMS) on numerous projects, including a series of case studies on the implementation of EMR in physician practices, was commissioned to prepare these case studies. Several staff from PSC visited practices and spoke with physicians and non-physicians to hear their perspectives on practice innovation and PCMH.

The innovations described in each case study do not necessarily represent all of those implemented by the practice. The questions in the case study interview guide were fairly open-ended and, thus, interviewees were able to talk about those innovations they deemed most important for their practice. For some practices, the focus is on group visits; for others it is on the underlying processes they have put in place to support innovation or

the electronic infrastructure that they have had to put into place; and for still others the focus is on the host of changes they have made to support chronic disease care.

MAJOR THEMES

Although the purpose of this report is to convey the valuable details of physicians' experiences with PCMH, this introduction highlights themes that came up frequently during the site visits or seem particularly useful for physicians considering seeking PCMH designation. It is important to note, however, that this is not a statistically significant research study. While we have attempted to present varied practices that reflect the primary care physician practice environment in Michigan, these 13 case studies are not a representative sample of physician practices in our state.

Proactive Care Management

The providers and non-clinicians interviewed have found that rigorous application of patient care processes and documentation of evidence-based care leads to more proactive care. Practices that have received PCMH designation have engaged in several activities that make the care they provide more proactive. They call patients to let them know they are due for preventive care; they follow up with patients to ensure they receive any lab work the physician has requested or even ask that patients have lab work done before office visits; they identify patients with chronic diseases and get them in for regular check-ups; and they carefully review patient charts prior to the office visit to ensure that a plan for the care that needs to be provided is clearly laid out.

A few of the practices noted that more preparation right before patient visits leads to far fewer interruptions during the patient visit. Before these innovations were put in place, physicians would often leave the exam room in search of lab results and other patient information. With staff in charge of locating this information in advance, physicians have what they need at their fingertips.

Team-Based Care and Empowered Staff

This proactive care, most practices have found, cannot be delivered by the primary providers (i.e., physicians, physician assistants, and nurse practitioners) alone. These practices have found it necessary and gratifying to empower other caregivers and staff to assume increased roles in patient care. To provide the most efficient care possible, some activities that were previously handled by physicians are now done by nurses, and tasks previously conducted by registered nurses are now handled by medical assistants, and so on. To support providers and staff in their efforts, written protocols and standing orders have been put in place so everyone in the office knows what to expect and what is expected of them. Several offices have implemented the practice of regular "huddles" to prepare for each day's patients.

The team approach to care does not necessarily mean that physicians spend more time with patients under PCMH, but most people interviewed say that patients are getting better, more valuable care when they are in the office.

Tools of the Trade: Flow Sheets, Electronic Alerts, and Action Plans

Along with written protocols, other tools were developed and used at many of the practices PSC visited to support the efficiency and effectiveness of each office visit, especially for patients with chronic care needs. These tools went by a variety of names—flow sheets, task lists, and action plans—but the purpose is consistent: to ensure that patients receive appropriate care seamlessly. The flow sheets contain lists of questions and information the providers should discuss and address with patients during the visit. For practices with EMR, electronic alerts in the patient records were often used to serve the same purpose. These alerts ensure that anyone who comes into contact with the patient during the office visit is aware of the care that should be provided. All of these tools ensure that evidence-based care is provided and that important care items are not skipped during a visit.

Bringing Everyone Along

It is not a slam dunk that everyone in a medical practice is going to be ready and willing to take on changes to the way care is provided. In most cases, a physician champion was behind the decision to seek PCMH designation, but quite often a practice manager or administrator was put in charge of making it happen. These individuals offer sage advice for working with everyone in the practice to make PCMH a reality. Most often they suggest involving as much of the staff as possible in discussions. This ensures that everyone understands why changes are being made, and can also invite buy-in when shared-decision making is employed. For a few practices, the availability of data through a patient registry or EMR has proved useful in convincing providers that either a change needed to be made, or that improvements are, in fact, occurring through PCMH implementation.

Financial Implications

The overall financial and other resource implications vary across practices. Several noted that many hours were required for training and educating everyone in the office. Some practices added staff, usually a diabetes educator; others were able to decrease their staff once they saw where inefficiencies existed.

While most everyone said the opportunity to improve patient care drives their interest in innovation, they also described increased insurance reimbursement from Blue Cross Blue Shield of Michigan, among others, as a helpful nudge in their decision to seek PCMH designation. The increased reimbursement is more helpful to some practices than others, based on the proportion of patients with the appropriate insurance. A few practices also received financial incentives from the physician organizations to which they belong.

Challenges and Frustrations

The practices that participated in the case studies, not surprisingly, have been challenged as they have implemented PCMH innovations. New processes and change invariably lead to frustration for somebody. These issues, however, have come and gone and, for the most part, the practices are working relatively smoothly as PCMHs.

Two issues continue to plague most of the practices, however. One is the lack of interconnectivity between their EMRs and those of local hospitals and specialists. While

the practices generally believe they have good relationships with the hospitals and specialists, and they obtain the information they need from them, they are frustrated that they cannot receive this information more easily electronically. The other large issue is lack of enhanced reimbursement from more payers for PCMH-type care. Some practices say that this limits the extent to which they can continue to implement new innovations.

Higher Quality of Care and Better Patient Outcomes

Regardless of the financial implications and frustrations they have experienced, none of those interviewed expressed any interest in returning to the way they used to provide care. All said they have seen clear improvements in the quality of care provided and some have seen evidence of better patient outcomes. Several also noted that patients are increasingly becoming partners in their own care.

BlueSky Health

PRACTICE PROFILE

BlueSky Health is a primary care practice founded by Dr. Jeffrey Huotari in 2006. It is located in Houghton, Michigan, in the remote and rural western Upper Peninsula. When establishing BlueSky Health, Dr. Huotari's goal was to apply engineering principles to health care systems and standardized care to optimize the doctor/patient relationship. BlueSky strives to serve as a patient-centered medical home (PCMH) that provides direct access to health providers, eliminating barriers to quality care. BlueSky Health was first designated as a PCMH through the Blue Cross Blue Shield of Michigan (BCBSM) Physician Group Incentive Program (PGIP) in 2009.

Approximately 30 percent of the BlueSky patient population is pediatric, 30 percent is 18 to 39 years of age, and 30 percent is 40 to 64 years old. Only 10 percent of BlueSky patients are 65 years old or older and receiving Medicare benefits. The clinic is most frequently visited by patients between 40 and 64 years of age with chronic disease.

The practice has gained 30 to 35 new patients each month since it opened; this is impressive given that it is located in what is considered a non-growing patient population area.

The practice employs two physicians, Dr. Huotari and Dr. Kimberly Dovin; one nurse practitioner, PeriAnn Wasie; and one administrative staff person, Leanne Nordstrom. PSC interviewed all four members of the BlueSky team via Skype. Dr. Huotari also gave the interviewers a cyber-tour of the practice.

THE DECISION TO INNOVATE

Dr. Huotari's medical school and residency experiences were the impetus for redesigning his primary care practice. He felt that the traditional hospital-based, subspecialty-driven health system was not adequately equipped to meet primary care patient or provider needs, and that primary care medicine can be more convenient for patients as well as providers, and less expensive for payers. Knowing he could be in practice in primary care for another 25 to 30 years, Dr. Huotari felt he needed to choose to either tolerate the current system or find a better way to make it work. He picked the latter.

Dr. Huotari chose to implement his model in the western Upper Peninsula because he wanted a model that was proven to be successful in a rural area.

> Part of my purpose with BlueSky is to introduce disruptive market forces that drive change throughout the larger primary care provider community, in order to extend my reach to non-BlueSky patients as well. For BlueSky to accomplish its goals, it needs to be scalable and profitable in communities dependent on primary care, such as rural areas.

For this initial clinic, he also wanted an area with a manageable number of third-party payers, easily identified competitors, and a geographically well-defined service area.

INNOVATIONS IN PRACTICE

Systematic Approach to Meeting Patients' Needs

In order to deliver care that meets the needs of his patients, Dr. Huotari's goal is to build an innovative practice from the ground up that focuses on eliminating barriers between patient and provider. The care provider is often the only person patients come in contact with when they visit the clinic. As part of the relationship-building strategy, the provider collects all patient information, demographics, insurance, and vitals, in addition to performing traditional diagnosis functions. By design, there is no receptionist and the patient rarely, if ever, interacts with administrative staff other than to support the provider in billing or scheduling if needed.

The experience at BlueSky—scheduling appointments, the clinical visit, and the office location and environment—is engineered for patient comfort and aesthetics and focused on opening the lines of communication between patient and provider. The clinic is located in a strip mall, near a large retail store. Huotari chose the location specifically because he believes primary care services, for convenience, should be decentralized to locations where people actually spend their time, and "in this area, that's where people are, so that's where we need to be."

All appointments are made through either the BlueSky website (at any time) or by calling the provider directly. To eliminate messaging errors and delay (one of the most common sources of frustration for both patients and providers in traditional systems), all calls go directly to voicemail where they are automatically transcribed to text and preserved in a .wav file and e-mailed to the appropriate provider. The request is addressed and the patient is contacted within 90 minutes. There is a physician directly available by cell phone 24 hours daily.

The waiting area at BlueSky is designed to be comfortable and pleasing to all senses. Since there is no receptionist, there is no traditional reception desk or traditional checking in process. A computer with Internet access is available in the waiting room so that patients can schedule appointments. Signage replaces other receptionist functions. Appointments start at the scheduled time, eliminating patient waiting.

After arriving at the clinic, patients are greeted by their provider and welcomed into the consultation room. The consultation room is arranged like a comfortable office conducive to conversation and is used for most of the 30- to 45-minute appointment. The providers at BlueSky do not interview patients while they are unclothed on the examination table; therefore, the examination room, accessed through the consultation room, is used only briefly, as needed. The clinic also provides a conference room for educational seminars and group visits, a feature of chronic disease management and preventive care that Dr. Huotari is now implementing.

Dr. Huotari designed BlueSky so that physicians act as case managers for their patients. Each patient's case is managed holistically by the provider, from intake to follow-up. If specialty referrals are necessary, the BlueSky provider makes all contact with the specialist's office and completes any necessary paperwork. The practice has good relationships with specialty providers, ensuring good communication and better patient

care. Time is built into each BlueSky provider's day to interact with specialty practices on behalf of his or her patients.

Since BlueSky was designed with patient needs in mind, spending adequate time with each of the 8 to 12 patients seen daily is a priority for the entire staff. Occasionally, the system is abused, according to nurse practitioner PeriAnn Wasie, especially time spent with the physicians. However, Wasie reports that it happens infrequently and can be expected when working with people.

Technology and Administration

Dr. Huotari operates BlueSky with as little overhead expense as possible. To do so, the practice is streamlined. Lab tests and immunizations are not offered at the clinic. Staffing is limited to two full-time equivalent providers, including physicians and nurse practitioner, and one part-time support person.

Leanne Nordstrom was hired in 2008 as "back room" administrative support. Nordstrom's responsibilities include billing and payroll support, print media and website support, IT support, and chronic disease and prevention program development. Her contact with patients is limited to returning phone calls to new patients, orienting them to the practice and providing basic information. She also spends a substantial amount of time working on insurance issues with patients, typically via e-mail.

Nordstrom is also responsible for maintaining the practice's website. She states that the site was developed with simplicity in mind. Patients can access the site to research prices, services, and appointment availability. The site is tailored specifically to patients' needs.

The use of technology enables the practice to run efficiently with fewer support staff and lower overhead. The entire office team participates in any experiments with new technologies. If a new system is not effective or efficient, it is discarded.

Not all patients care to use technology, such as voicemail, e-mail, or Web scheduling. From Wasie's perspective, this makes communication more challenging. However, she indicates that patients are adapting, especially to the voicemail system. The practice is also responding to the technological needs of its patients. Originally, the practice tried a phone menu system, which was not well received. Switching to a more familiar voicemail system provided a friendlier atmosphere for patients. Dr. Dovin remarked that while the older population is somewhat more resistant to technology in the clinic, many patients like the convenience, stating that, "patients *love* e-mail."

BlueSky relies almost completely on electronic medical records. In keeping with Dr. Huotari's desire to keep overhead low, the EMR software is an inexpensive, off-the-shelf product. Although the software cost only $1,000 and is easy to use in the practice, staff are finding that, like many software solutions, it does not interact well with outside systems. Wasie, however, finds the EMR system very efficient and mentioned that having technology right at her fingertips helps her provide better care to her patients.

TRANSITION TIME

BlueSky is in the second phase of Dr. Huotari's two-phase building plan. The first phase, intended to last one to three years, saw the practice move from a low-overhead, direct patient interaction pilot project, through the addition of staff—first another physician, then a nurse practitioner and support staff. In years four through six, phase two will see the establishment of relationships and integration with existing systems, such as larger hospitals and accountable care organizations.

PROVIDER AND PATIENT RESPONSE

All three members of Dr. Huotari's staff stated that the reason they wanted to work at BlueSky was its innovative practice model. Nurse practitioner Wasie appreciates the autonomous role she has in the practice and the contact time she has with patients, allowing her to meet their needs. She also appreciates that one of the physicians is always immediately available to provide care management. Compared to traditional practices, providers at BlueSky can provide more comprehensive care because of the direct interaction with patients. The result is that patients get more quality time with their provider. Everything is settled when they leave, including prescriptions, referrals, follow-up appointments, and payment. The entire process takes place between the provider and the patient.

Dr. Dovin thinks that the extensive use of technology sets BlueSky apart from the traditional practices in which she has had experience. Her opinion is that some of those technologies are not as efficient as traditional systems; Web-based fax receipts, for example, are slow. However, she enjoys the direct connection with her patients. She says, "Patients don't expect anything different when they come in, but are pleasantly surprised when they are greeted by their provider. I always had the mindset that I wanted more time with patients; I wanted a better connection." Dovin said that joining BlueSky has provided her with the right fit to achieve this professional objective.

Leanne Nordstrom had never worked in a medical practice before taking the job at BlueSky. She immediately believed in Dr. Huotari's model. Nordstrom thinks the patients at BlueSky are better educated about their health care because of the time they spend with their providers. Patients come away with a better understanding of the rationale for their treatment decisions. Overall, she feels that the practice provides better customer service.

Patient satisfaction at BlueSky Health was recently measured with a survey in which more than 800 questionnaires were distributed to patients at sequential office visits. The survey had an approximately 80 percent response rate. According to Dr. Huotari, of those who responded, over 99 percent stated that they were satisfied with their experience of the practice (just two unsatisfied responses were received).

Patients do occasionally see drawbacks in the practice model. From time to time, patients are concerned that there is no receptionist. Patients also express concern with the online system or not speaking to a "live person" when they deliver their message to their provider via voicemail. Also, patients are sometimes intimidated by the direct interaction with their providers.

Overall, however, "patients are engaged," says Wasie. "They like the ease of getting in for an appointment. They are gaining understanding of the role of a nurse practitioner, a new concept for many."

FINANCIAL (RESOURCE) IMPLICATIONS

BlueSky operated on a cash-only basis for its first six months. Dr. Huotari had hoped to do so for a longer period, but started accepting Blue Cross Blue Shield of Michigan, Medicare, and Medicaid in order to meet the needs of more patients and remain financially viable. Because of the region's sparse population, there is not a wide variety of private payers. Huotari made the decision to add support staff primarily because of insurance billing, which accounts for 60 percent of his overhead. He says that insurance billing has expenses to the practice, but has also improved revenue.

Dr. Huotari says that he has not received any significant outside financial support for his innovative approach. His practice is entirely self-financed with home equity lines of credit; he has assumed a very large personal risk. Although national and regional support of the medical home model has led to some payment changes, he finds the overall lack of third-party payer support for new primary care payment models one of the biggest obstacles he faces:

> The existing fee-for-service payment model, with its face-to-face visit emphasis and ICD-9 and CPT billing requirements, is obsolete in the face of what current and future hardware and software trends allow us to do, as well as the growing influence of social media in shaping patients' and providers' expectations of how care is delivered.

Additionally, he has found that despite a new flow of dollars into initiatives to fund primary care transformation, these dollars tend to flow to or through larger traditional organizations, capping the potential to benefit small independent practices, and blunting significant transformation efforts within that core community of primary care providers.

THE FUTURE

Dr. Huotari is implementing a chronic disease management and prevention system, in which all chronic disease and preventive care is individually pre-planned on a yearly basis. Unplanned acute care diagnostic services are currently available 40 hours per week face-to-face, with a long-term goal of 84 hours weekly. Twenty-four-hour phone availability is and will remain in place. He is working to achieve a goal of decreasing emergency department visits and hospitalizations for his patients by 90 percent.

He continues to seek direct-payer relationships that aren't dependent on ICD-9 and CPT-based reimbursement structures, as he feels this is where true system transformation will ultimately occur. Currently, his focus is on the employer and patient market, but he is hopeful that it will ultimately include insurance companies as well.

ProMed Physicians – Borgess Pediatrics

PRACTICE PROFILE

ProMed Physicians is a pediatric care practice located in southwest Michigan. It is an affiliate of Borgess Health System and comprises three offices located in Kalamazoo, Portage, and Richland. Patients have access to providers in all three locations. ProMed Physicians has been designated as a patient-centered medical home (PCMH) through the Blue Cross Blue Shield of Michigan (BCBSM) Physician Group Incentive Program (PGIP).

ProMed Physicians employs 12 physicians, 2 physician assistants, and 6 nurse practitioners, all of whom see patients part-time. ProMed has approximately 28,000 active patients in its three office locations; approximately 21 percent of patients are Medicaid beneficiaries.

PSC spoke with the following individuals from the Kalamazoo location: Becky Cross, director; Kelly Burk, PCMH model coordinator for the Borgess system; physician assistant Melissa Mickelson; and nurse practitioner Sherry Hanly.

THE DECISION TO INNOVATE

The decision to implement a PCMH in the Kalamazoo practice was made based on financial incentives from Borgess Health System. In 2002, the health system's administration was beginning to learn about the medical home model and made a decision to pilot that model in one family practice. In June 2009, the option to implement medical home models system-wide was given to practices. While implementing new and innovative practices was not mandatory, a full-time staff person joined Borgess Health System to assist those practices that chose to explore the options.

Borgess chose to encourage innovative practice to achieve two goals. First, Borgess is continually looking to improve patient satisfaction; increasing ease of access to care is important to Borgess. Second, from a financial aspect, the Borgess system wanted to find ways to allow doctors to spend more time with patients without increasing costs. The shared medical appointment model seeks to achieve both of those goals. Becky Cross, the director of ProMed Kalamazoo, worked with providers in her office to begin offering shared patient visits for well-baby check-ups. Patients would have the option to attend shared medical appointments for their infants' well-baby exams, from the age of two weeks to six months. This case study focuses solely on that aspect of the practice's PCMH implementation.

PREPARING FOR IMPLEMENTATION

Once the decision to implement shared medical appointments was made, administrators met with staff to discuss the model, along with the changes that would be necessary for its success. This included transitioning to a larger appointment room to accommodate a group, changing forms, and developing a model for group appointments that would work for the practice. Additionally, one staff member was identified as the "clinical coordinator" to take on the specific duties to facilitate the transition and ensure the

model's continued success. A conference room and small exam rooms in the basement were renovated to accommodate the larger groups.

Multiple staff meetings provided ample opportunity to explain the model to staff, and mock appointments were conducted to familiarize them with how the new appointments would work. Technical adjustments needed to be made as well, most importantly to the scheduling software used by the practice. Training for receptionists was needed to accurately schedule shared appointments. One nurse practitioner and one physician assistant were responsible for the shared group appointments.

All families with children between the ages of two weeks and six months were contacted to explain the changes and given the option to participate. Other issues that were addressed for patients included incorporating all of the elements of a well-child exam into the group setting, while still making families comfortable; devising methods to handle contentious or personal concerns within the group; and, most important, patient privacy.

With a blueprint for implementing the model, and updated space for the larger groups, the practice began scheduling appointments.

INNOVATIONS IN PRACTICE

The shared medical appointment provides a setting for patients to come together, not only for basic, ongoing medical care, but also to provide support and learn from others who are going through similar experiences. This model became popular in the early 2000s. While it was generally applied to adults with chronic conditions, such as diabetes, staff members from ProMed believed that the model could be easily modified for pediatric patients.

ProMed's model allows for 8–10 patients to share a 90-minute visit. Melissa Mickelson, the physician assistant, or Sherry Hanly, the nurse practitioner, makes sure to review each patient's chart extensively before each visit, in order to address any common problems among patients or to address individual problems without targeting that individual. Upon arrival, each patient is quickly screened for illness before going to the group exam room. Additionally, all families must sign a HIPAA form, in addition to a general confidentiality form, to protect each patient's privacy.

The session begins with parents suggesting topics that they would like discussed during the appointment. Parents are then led through the basic information that would be included in an individual appointment and are encouraged to share ideas and concerns with each other, through a "support group" model. Not all topics that are initially suggested are discussed; the flow of the appointment really follows the interest and discussion of the parents as opposed to being dictated by providers. Each child is then taken into an exam room to be physically examined, as well as to receive any immunizations that may be required. Parents are also encouraged at that time to raise any issues that they are uncomfortable sharing in a group setting.

One barrier that the providers initially anticipated was parents' reluctance to share difficulties they may be having and how to engage parents in discussions of those issues. The providers have found, however, that generally all parents are comfortable discussing

issues in the group setting. Even those who may not be comfortable do not usually have to worry; since all of the children participating in the appointments are so close in age, providers say that at least two parents are struggling with the same issues and that if one doesn't bring it up, the other will.

Challenges

The first challenge facing the practice was convincing staff to adopt this model. Some staff had a difficult time understanding what the new appointment model would look like. Initially, some staff members reacted negatively to offering such an appointment to patients, fearing that the quality of patient care would be diminished as a result of less individual attention. In order to make the transition as comfortable as possible, several staff meetings were held to clarify what the changes would mean for them, for the day-to-day flow of the office, and for patient interaction with providers. After conducting just a few appointments, the staff began to understand the model and enjoy offering new, innovative options to patients.

Convincing providers to change was difficult as well. The shared group appointment is completely different from how most providers are traditionally trained to deliver care. In individual settings, the provider sets the tone, pace, and agenda for appointments. In a shared model, the patients really dictate those elements of the appointment. Ceding control of the appointment to the parents required a fundamental shift from providers, who feared that the care they were providing would be of lower quality due to the loss of one-on-one time with each patient.

Identifying the essential elements of the individual exam and managing time to ensure that those elements are addressed was vital to the success of shared appointments. Additionally, the shared appointment model requires a greater time commitment, not only for the appointment itself, which lasts 90 minutes, but also in preparing for it. Charts must be reviewed extensively before the appointment because of the short amount of individual time with each patient.

Logistically, one challenge to the shared appointment was accurately recording changes and other vital information in each patient chart. In order to address this, one person is assigned sole responsibility to record information during the group visit.

One final challenge for providers is ensuring that each child is seen and examined individually. The parents get so involved in the conversation that providers sometimes find it difficult to end the group session. One provider commented that parents sometimes view the group appointment as a social setting, or parenting group, as opposed to a doctor's appointment.

PROVIDER AND PATIENT RESPONSE

Overall, both providers and patients at ProMed Physicians have responded positively to this innovation. Although one provider described the new appointment model as "exhausting," she also admitted that taking this on was a "group decision, group investment, and group reward." After each appointment, staff meet to debrief and improve techniques used in the appointment. Providers have learned from negative

aspects of previous appointments and a continued commitment to change prevails in the staff culture. Additionally, the expanded time with parents allows the appointments to take on a more educational focus, which would not be possible in traditional 20- to 30-minute patient visits.

Many parents view the appointments as a support group, learning from and leaning on other parents with similar experiences. Patient surveys have shown overwhelmingly positive responses. The model has been so successful for this practice that it was featured in a local news channel broadcast.

FINANCIAL (RESOURCE) IMPLICATIONS

When implementing the new appointment model, the practice found few challenges to targeting resources to support the change. Because of the support and encouragement of the larger health system to which ProMed belongs, acquiring additional supplies and materials, as well as reorganizing space to hold the appointment, was not difficult. The practice's major investment was the time spent in training and making staff comfortable with the changes.

Institution of the group appointment seems to result in a win-win situation for both providers and patients. Although 8–10 patients are seen in a group setting, the appointments are still billed as individual well-child exams, because each child is examined individually. This has a direct impact on the financial bottom line of the practice. Under the traditional well-child model, three children would be seen in any 90-minute time frame. Now, three times that many can complete a well-child exam at the same cost. At the same time, the quality of care is unchanged and parents receive more information and support than they would in a traditional setting, all while developing relationships with other parents in their community.

THE FUTURE

The providers and staff at ProMed have been increasingly satisfied with the decision to implement the shared group appointments for infant well-child exams. The response from both staff and patients has been so positive, in fact, that the practice hopes to be able to expand the infant well-child exams to children up to 18 months old and also use the model for asthmatic children as well as kindergarten readiness physicals. The other two ProMed offices will begin to offer patient appointments in this fashion.

The practice is considering creating cohorts of patients, meaning that the same 8–10 patients will be seen in the same group throughout the duration of their participation in the shared appointment model. ProMed providers hope that this will further encourage and facilitate a supportive setting for parents to become comfortable in sharing concerns and learning from others.

At this time, the shared appointment model is not used as a marketing tool for the larger Borgess system, but the practice administrator hopes this will change in the future. She believes that at this time it has not been used to its full advantage due to a lack of understanding, both among the public and providers. Her hope is that Borgess will soon

promote the benefits of shared medical appointments and that this will draw new patients to the system.

Edward C. Bush Family Medicine

PRACTICE PROFILE

Edward C. Bush Family Medicine is in Riverview, a Downriver bedroom community for people working in and retired from the automobile and steel industries. The community has been hit hard in recent years by the deep recession and the downsizing of manufacturing. Dr. Chris Bush is the sole physician in the practice, which also includes a half-time nurse practitioner. The practice has 6,000–7,000 patient visits a year and has achieved patient-centered medical home (PCMH) certification through the Blue Cross Blue Shield of Michigan (BCBSM) Physician Group Incentive Program (PGIP).

PSC spoke with five people during its visit: Dr. Bush, nurse practitioner (NP) Janet Sohn-Bush, biller Frances Cayton, receptionist Marie Emery, and medical assistant (MA) Bea Smith.

THE DECISION TO INNOVATE

For Dr. Bush, moving toward the patient-centered medical home was born of necessity: "Family doctors have to adapt and re-engineer their practices to survive. We have to have a better product, adding value in the management and supervision of care." Incentives, especially from BCBSM, helped drive the re-engineering: "The Blues used to give 2–3 percent quality updates, but now you have to be in PGIP to get that incentive payment. If you don't play, you get behind every year. There is no new money in health care." Nurse practitioner Sohn-Bush adds, "We've always had a high standard of quality. Now it's documented and validated [through PGIP]. We need to innovate to be at the forefront of what's best for patients. We must constantly change to stay alive."

Change required a "fairly dramatic" shift in the culture of the practice, according to Bush. "We had computers for scheduling and billing, but there was nothing clinical on them. It was difficult to devote the time to making the change," he explained. All staff are now involved in patient care. Biller Frances Cayton appreciates that clinical information that was previously available only in the chart is accessible to her: "Everyone in the office—even if you're not a clinician—is more involved with patients. You're more aware of what's going on with them so you can help them." Marie Emery, the receptionist, concurs: "We're all involved with our diabetic patients. I know what they need—labs, making sure of follow-up appointments."

Dr. Bush has not made the jump to electronic medical record (EMR), though he relies increasingly on the computer to provide patients information in a timely fashion: "I print updates for my patients, especially for the diabetics, and make sure they have the requisite tests *before* I see them in the office." As for the EMR, Bush says, "I'm trying to decide. The stimulus package offers incentives—and, then, in 2012, the disincentives kick in. It's hard to change when you're used to paper." Bush notes that Medical Advantage Group (MAG), a consulting and management services company, has sent staff to his practice as part of an ongoing education process that is helping him make decisions to improve patient care. He anticipates that he will soon begin searching for an EMR vendor.

PREPARING FOR IMPLEMENTATION

The implementation of the PCMH has come gradually for the practice. It began with e-prescribing—"Doctors are notorious for poor penmanship," Bush notes—and his involvement with MSMS and the Medical Advantage Group alerted him early on to the opportunity. His staff converted easily to e-prescribing and patient safety has improved as a result. The practice also uses Ariphron, a Web-based, point-of-care patient registry that helps manage preventive care and chronic disease. "Ariphron allows us to see trending over time with patients—HbA1c, LDL, and HDL," nurse practitioner Sohn-Bush said.

The PCMH, Dr. Bush explains, was an opportunity to get his patients on disease-specific registries. The practice began with patients with diabetes and is now moving on to those with congestive heart failure.

Bush's practice is in the process of being recertified for PGIP and the process is labor-intensive: "Blue Cross is getting more prescriptive [to be recertified]," he explained. "We had two medical assistants working on this, but one of them left. We're trying to find someone who can work the computer and take patients' vitals." Nurse practitioner Sohn-Bush echoed Dr. Bush's sentiments: "It's a huge investment of time for a small practice to meet PGIP requirements. Once you've set it up, it's OK. We have this huge binder in which we collect information on what we do every day with patients. It's time consuming."

The transition to e-prescribing and the patient registries took time, but, according to Emery, "it wasn't as overwhelming as I thought it would be. Once you get used to it, it's much easier."

INNOVATIONS IN PRACTICE

Patient visits, states Sohn-Bush, are now more focused on the patients: "We don't have to flip through charts and have more quality face-to-face time. Medical assistant Smith likes the reminders for preventive screenings from Ariphron, which "makes sure I don't forget any questions to ask the patient." Dr. Bush notes that the practice is "just scratching the surface with Ariphron. We don't yet have an interface between the lab tests and the registry, so we must input labs manually."

Bush thinks that, on average, he spends less time with patients, but the time is better spent than before. "We can get down to the most important things, like getting them to quit smoking or exercise more."

E-prescribing has made the practice more efficient and made patients happier. "We get many fewer calls from the pharmacies, asking for clarification on handwriting," Emery says. She adds that e-prescribing is "much easier for the patients. We don't have to print the prescription—we send it electronically to their pharmacy."

The practice has made great strides managing diabetes care. As Dr. Bush explains, "We're getting good buy-in on quarterly chronic care visits. We're trying to re-educate patients to come in when they're not sick. Of course, they have a copay, which I think should be removed to encourage preventive visits. But most patients can now grasp the importance of keeping their HbA1c under control." Smith likes that she can easily pull up

the diabetes patients' goals for Dr. Bush to review with the patient: "And the information helps me understand more about the illness so I can help address the patient's concerns," she adds.

Perhaps Smith sums it up best: "There is so much information in one place on a patient that we have time to talk with patients—and they will tell you things they wouldn't normally tell you that you need to know to care for them."

Challenges

Beyond the customary adjustment to new computer programs, the practice does not seem to have had too much trouble with implementation. Dr. Bush and Sohn-Bush have broader concerns: the difficulty of communicating patient information readily with other practices, and the fact that health systems and plans do not share patient information or financial incentives. As Sohn-Bush says, "Smaller practices really have a hard time changing software and entering and re-entering data."

PATIENT RESPONSE

Overall, patients have responded positively to the innovations put in place at Bush Family Medicine. As Sohn-Bush states, "The patients like e-prescribing and the registries. Instead of running to urgent care, they call the office first now. We're convincing them, one by one, through repetition, that we can help them quickly because we know them." Biller Cayton adds that most patients like that the system helps the practice follow up with patients to make sure they get necessary tests: "A lot of them like to be reminded," she says.

An ongoing challenge is a subset of patients who, according to Dr. Bush, "have been raised that you go to the doctor only when you're sick. Give me my pills and let me smoke. There are no easy answers for these folks."

FINANCIAL (RESOURCE) IMPLICATIONS

Dr. Bush and his colleagues spoke more of the cost of *not* becoming a PCMH than the cost of becoming one. With payment pressures from Medicare and private insurers combining with patients losing their jobs and their employer-sponsored health insurance, the practice sees PCMH as essential to its financial viability. "Without pay for performance [for PCMH elements], our practice income would have plummeted. It's good to see HAP [Health Alliance Plan] and Priority Health extending their incentives, to go along with the Blues," Bush states. And the practice aims to soon be part of Medicare's Physician Quality Reporting Initiative (PQRI), which is an incentive program.

THE FUTURE

Dr. Bush and his team look forward to extending their PCMH practice and earning the incentive payments that enhanced patient care offer. As Sohn-Bush states, "We want to do more of everything, especially educating patients about healthy lifestyles. It sounds simple, but it is very hard and we want to spend more time with patients." The promise of connectivity with other practices and health systems will also improve their ability to care

for patients. This small practice is cautious, but committed to making a more comfortable medical home for its patients.

Cadillac Family Physicians

PRACTICE PROFILE

Cadillac Family Physicians is a primary care practice located in the northern Lower Peninsula of Michigan. Patients in this rural community come from an approximately 50-mile radius to visit the practice. Cadillac Family Physicians' primary providers are the six full-time physicians and one part-time nurse practitioner. Other caregivers in the practice include seven registered nurses (RNs), three limited practice nurses, and five medical assistants (MAs). The practice administrator holds a master's degree in social work. The practice is a member of the Wexford Mercy Physician Hospital Organization, of which Dr. James Whelan, one of the practice's physicians, is the medical director.

Cadillac Family Physicians has achieved patient-centered medical home (PCMH) certification through the Blue Cross Blue Shield of Michigan (BCBSM) Physician Group Incentive Program (PGIP), and is in the process of applying for the PCMH designation from the National Committee for Quality Assurance (NCQA).

PSC spoke with five people during its visit to Cadillac Family Physicians: practice administrator Cheryl Bader; Dr. Whelan; clinical quality supervisor and registered nurse Sandy Stehouwer; nurse practitioner Dianne Conrad; and Dr. Alan Conrad.

THE DECISION TO INNOVATE

Cheryl Bader credits the practice's physicians for the impetus to change: "We have doctors who are visionary. They were visionary 11 years ago when they hired me to move the practice onto an EMR, and they always watch for financial incentives." Thus, it was a clear next step for Cadillac Family Physicians to implement the innovations that have now earned them the PCMH certification from BCBSM. Bader states, "We were doing a lot of these things, like open access scheduling, long before the incentives came along because that's what best practice said to do." Dr. Conrad says PCMH is a validation of the type of care he has always worked to provide:

> I've been trying to do these things for so long—appropriate care delivered, patients informed of test results, getting patients in for preventive visits. I've always tried to get patients to get labs done prior to appointments. And I try to write goals on their results, so they know what they need to do.

Dianne Conrad, the practice's nurse practitioner, concurs:

> When the [PCMH] concept came out, we realized we were doing a lot of it already. It was a validation of what we do. We recognized we had a lot of elements, but we had to formalize them.

Dr. Whelan calls PCMH certification the "final step of many steps." He says, "Blue Cross payments made [what we were already doing] financially worthwhile."

PREPARING FOR IMPLEMENTATION

While Cadillac Family Physicians was already using electronic medical record (EMR) and had implemented many of the elements of PCMH informally, the task of becoming a

certified PCMH involved preparation and planning, and continues to involve unwavering dedication on the part of the staff and providers.

As the practice administrator, Bader has led the practice through the process of becoming PCMH certified and formalizing the required elements of PCMH. This has required her to work closely with both the staff and the physicians to move the process along. "We bring staff in as soon as possible in planning," she says. "They're part of the team. If it doesn't make sense to them, the process won't work. It's a continual process of talking to the staff and checking in with them." Of the physicians, Bader states, "Doctors have to be on board right from the beginning." And, even when they are, she asserts, "that still means going back and forth with them to move things forward."

Dianne Conrad describes ongoing preparation and planning to implement changes to workflow as a process of identifying challenges and solutions:

> First you have to identify the problems. That came from Cheryl finding the perspectives from doctors, nurses, staff, and patients. Then you find the solution. It can be as easy as changing reminder systems to reworking the whole nursing process and how we provide nursing care.

Patients have had to be prepared for the shift as well. Clinical quality supervisor and RN Sandy Stehouwer notes: "In addition to meetings and training for staff, we tried to put some information out to patients, too. We had handouts so they could understand what PCMH entails, and we have signs in the waiting room to alert them to our status as a PCMH."

INNOVATIONS IN PRACTICE

Becoming certified as a PCMH has led to some major changes in the work flow as well as shifts in responsibility among providers at Cadillac Family Physicians. These changes have combined to result in more robust patient care management, but have also created some challenges.

One of the more significant—and recent—innovations implemented at Cadillac Family Physicians is the institution of nurse schedules. Bader says the practice "used to have each nurse assigned to a doctor. Now, people are assigned functionally to what patients need each day. Some people don't need to see a doctor." RNs are now supervising teams of MAs, who are rooming patients and doing prior authorizations.

The practice is laid out with two halls that are a mirror-image of each other. Bader describes the division of labor by hall: "We have two providers on each hall and an RN supervisor on each hall." She notes that patient care is carefully coordinated each morning, when

> [the RN supervisor] meets with her team and they huddle to talk about the day's patients. They look for potential bottle-necks in the schedule and they identify the team members who will be responsible for each aspect of care. They also ensure that practice standards will be met for each patient.

Stehouwer, who has been with the practice for 16 years, coordinates nursing care as the clinical quality supervisor. She and Bader meet regularly with the RN supervisors to identify and address any issues.

Stehouwer is also responsible for ensuring that all patients receive the preventive and chronic disease care that is prescribed in evidence-based guidelines. To this end, she directs front office staff to contact patients to let them know when they need to come in for visits and when they need to complete lab work. According to Stehouwer, "we track what tests have been completed and need to be completed, and we contact patients to have them get the work done. We also contact other providers to get reports of patient visits."

Stehouwer also reviews patient charts ahead of their scheduled visits to identify what they will need when they are in the office and places alerts in the patients' records so everyone in the office knows what chronic and preventive care tasks should be accomplished during the visit. Dr. Conrad says, "The majority of the time when I walk in, nurses have already done the work I need to help the patient. Just this morning," he adds, "a nurse had done the work I needed for a patient whose asthma was slightly not in control. The staff is empowered to make me a better practitioner."

MAs and RNs are supported in taking the initiative to respond to patient alerts because they are considered part of a team, each member of which has clear roles and responsibilities. Bader notes, "Everyone from schedulers to providers knows how to handle patient alerts. RNs don't have to wait for providers to ask them to do something. They have standing orders to handle chronic and preventive care measures."

This sort of wraparound care helps ensure that chronic illness is managed for all of Cadillac Family Physicians' patients. As Stehouwer puts it, "My role and that of the MA and scheduler is to make sure that patients with chronic disease get appointments. Reminders on charts help to ensure that patients get the care they need when they are here."

These shifts in responsibility and improvements to work flow have led to improvements in patient care. Dr. Whelan says, "The efficiency and effectiveness have certainly improved." He adds that the innovations have "transformed how we approach each visit. We provide less simple acute care, and now we are addressing chronic care at each visit as well."

Dianne Conrad also notes the improvements to work flow and patient care that have come through implementation of PCMH:

> Before we implemented this concept, I would come in and have an assigned MA. Now I have a team of support staff helping me get the best results possible—advocating for patients and looking ahead so we can accomplish our goals, and making sure we document everything to get the pay for performance incentives. We were doing it before, but not as efficiently as we are now. We're working smarter.

Bader says the innovations have not necessarily allowed physicians to spend more time with patients, but she believes the care has improved all the same: "I don't think [PCMH]

would allow doctors to see patients longer, but we give patients more for their money in one visit. A multidisciplinary team is so important." Dr. Conrad agrees that he does not spend more time with patients, but of the time he does spend he says, "It's more productive." Dr. Whelan adds, "We use the time more efficiently to address chronic care."

The changes to office flow are supported through monthly clinical meetings and monthly meetings of front office staff. Bader says the practice "[doesn't] meet as a full staff very often because we have an electronic health record and a better system for communicating." Physicians also are given quarterly reports on their performance so they can identify any gaps in care. Dr. Whelan admits:

> I was most likely to have gaps in care because I over-individualized care and allowed patients to set the agenda. [PCMH] has allowed me to eliminate that without being pushy to patients. It's a win-win having someone double-check those gaps; now I have fewer.

Bader adds, "We weren't as vigilant about looking at [performance improvement measures] before the morning huddles, which started in February. Now we work to catch patients on all of the care standards."

Challenges

Implementation of innovations at Cadillac Family Physicians has included some challenges. For example, providers may not fully embrace the use of guidelines to direct patient care. Dr. Whelan says, "Sometimes it can feel like you're doing things to meet guidelines, rather than because it is in the best interest of the patients." He adds, "One of our doctors feels that to do urine micro albumin screening annually is unnecessary when the patient is on medication. But we have to do this for BCBSM." Bader notes:

> We have seven providers, and they span the continuum of thought processes. Standardizing care is uncomfortable for people who don't think that way naturally. The doctors and I meet monthly to talk about innovations. Decisions to move forward are always unanimous, but in practice there can still be some resistance.

Another frustration for the practice is limited ability to interface electronically with other providers. According to Bader, "What we're hindered by is other offices that aren't electronic and HIEs [health insurance exchanges] are just not there." Whelan is also frustrated by the limitations caused by lack of interconnectivity: "There are technical limitations to good data flow. Other offices in the area aren't electronic, and some electronic media can't communicate with others." Bader points out, however, "We have a good collaborative community. I can call other office staff and our doctors know other doctors, but we can't really share information electronically yet."

Ensuring that the practice receives all of the enhanced reimbursement it deserves can also pose a challenge. Dr. Conrad says:

> Keeping abreast of reimbursement is a challenge. You have to have a process in place to document that you're meeting pay for performance guidelines. We have to make sure we can meet meaningful use guidelines, which means we have to

> send 80 percent of prescriptions electronically. This is a challenge when older adults use mail-order, or when pharmacies don't accept e-prescriptions.

An overarching challenge to working as a PCMH, according to Stehouwer, is simply this: "It takes time. It makes you a lot busier as a practice. You don't wait for phone calls. You don't wait for people to just come in with problems."

TRANSITION TIME

Looking back, Dr. Whelan recalls that "implementing EMR took a year, and there are times that updates make us feel like we go backward." He and Bader agree that most other innovations have been implemented fairly quickly. Bader says, "Depending on the innovation, most people felt like we were doing it forever. It takes a little while to get it 100 percent, but I'd say we're 80 percent wonderful at it right from the get go." For example, Whelan says, "The change in workflow seemed to just happen over a couple of days."

Stehouwer and Dr. Conrad describe the innovations as a work in progress. Stehouwer notes, "It's sort of an ongoing process still. It's been about a year now since we first started PCMH officially. We're sort of getting comfortable with our roles and the checks and balances." Dr. Conrad adds, "It's a process of continuous quality improvement, and while we're making strides, there are things we can do better. We haven't arrived yet. It's the art of becoming."

PROVIDER AND PATIENT RESPONSE

Overall, both providers and patients have responded positively to the innovations put in place at Cadillac Family Physicians. When the practice was first considering PCMH certification and subsequently introduced the concept to patients, most people wondered how it was different from current practice. Bader says, "When we first brought up the concept of PCMH to the staff, I heard over and over again, 'This is what we do.'" She adds, "As we talked to patients, they even recognized that we were already doing these things."

Dianne Conrad agrees:

> Patients who saw the PCMH brochure said, "This is already what you were doing." But we told them, "We're just trying to formalize the relationship and make it a two-way street."

And now that the innovations have been implemented, Stehouwer says:

> Patients have responded pretty positively. They feel that they're being looked at comprehensively and we're trying to get the most out of their visits. When you call to remind them they're overdue for something, they feel like you care about them.

Among providers, the response has also been fairly positive. Physicians and the nurse practitioner have appreciated how more work is done by nurses and MAs before they see the patients, and the nurses and MAs also seem to appreciate their new roles. Dianne Conrad notes, "My sense is that the nurses feel that they're more empowered and part of

the team." Dr. Conrad adds, "Nurses working as a team seems beneficial. The huddles empower nurses and get them on the same page."

Even with the primarily positive response, Bader notes that "some people would like it to slow down a skosh." But, she adds, "Staff know if it's initially uncomfortable, we'll answer their questions and try to give them what they need."

Among physicians, Dr. Whelan says:

> Engagement varies. There's always a cynicism that it's all just an exercise without practical benefits. It's not prevalent here, but there's still a little residual of that. Data will show if it is beneficial to be this patient care intensive.

Bader and Whelan believe the innovations can attract both new clinicians and new patients. Bader says, "We don't hesitate to talk about the innovations and be proud of them. Anybody who's looking, we mention it to them." She adds that "patients are impressed that their doctors are keeping up with things in a modern way."

Dr. Whelan notes that "as the world becomes more tech savvy, patients appreciate it [in their doctor's office]." He adds that "If we were recruiting, the fact that we're a PCMH and are electronic will attract young people coming out of residencies."

FINANCIAL (RESOURCE) IMPLICATIONS

When considering the financial implications of the innovations Cadillac Family Physicians has made, the cost of the EMR system comes to mind for providers and staff. The system has, however, been integral to the practice's ability to manage patient care effectively. Dr. Conrad notes,

> The EMR is a huge investment. We had a five-year investment plan for how much it would cost, but it cost a lot more. We didn't anticipate the ongoing nature of the costs and time for staff and training. Even so, it's still beneficial in the sense that we're so much better organized with our information. I can find things so much more easily.

The more recent innovations implemented by Cadillac Family Physicians have not appeared to have a significant effect on their bottom line, either positively or negatively. According to Dr. Whelan, "We see the same number of patients and make the same amount of money."

The way the practice is organized is resource intensive and requires having more RNs on staff than other similar practices might generally have. Bader says that she is often asked, "How do you afford that many RNs?" She acknowledges, "It's a large part of our budget. It's very expensive to do this. But the doctors have made a commitment to quality." And, she adds, "We've also been able to capture incentives."

Dr. Whelan agrees that "added reimbursement makes it more cost-effective." He concludes:

> My gut feeling is that in the long run it will be better for patients. It may not be cost-effective as a business proposition, but in terms of improving our quality of care and improving patient health, it's worth it.

THE FUTURE

While the providers and staff at Cadillac Family Physicians have been happy with the improvements they have made in the way they care for patients, they note the need to involve patients more directly in their own care. Bader says, "We need to try to make a contract with patients and set goals for them to work on over a period of months." Dr. Conrad states, "We're trying to help patients understand that they have some responsibility in their own care." To this end, Bader says that she and Stehouwer are "going to get some training on patient goal setting and then train the rest of the staff." The training, according to Stehouwer, is on motivational interviewing techniques, which she believes will help the practice "work better with patients to help themselves."

The practice is also going to begin holding group visits, which both BCBSM and Priority Health are encouraging, and will make further use of a patient portal, which was implemented just a few weeks prior to PSC's visit to Cadillac. Stehouwer believes the portal will "help us get information to patients more efficiently."

Dr. Whelan is excited by the possibilities for improved patient outcomes due to the implementation of PCMH innovations:

> I look most forward to saying that as a community we are providing superior health care to patients in this community. I want to see that gaps in care have declined, that diabetes care has improved, and to have data to show that it all matters. I have confidence that it will.

Children's Healthcare Access Program

PROGRAM PROFILE

The Children's Healthcare Access Program (CHAP) is a unique multi-site patient-centered medical home (PCMH) demonstration project in Kent County. According to Thomas Peterson, MD, the program's medical director, CHAP is "a virtual patient-centered medical home at the community level," in which 40 pediatricians and 10–12 family practitioners, physician assistants, and nurse practitioners collaborate to care for more than 15,000 eligible children on Medicaid. Four private practices; a teaching clinic in Helen DeVos Children's Hospital; Cherry Street Health Services, a federally qualified health center; and the Grand Valley State University nurse-managed clinic participate.

CHAP's mission is bold, as its leaders believe that their model can work for children across Michigan:

- Improve the quality of health care for all publicly insured children in Michigan
- Enhance the efficiencies and effectiveness of the delivery of Medicaid services in Michigan
- Lower overall costs of Medicaid for children in Michigan

To fulfill this mission, CHAP has identified these desired outcomes:

- Decrease inappropriate use of emergency departments (EDs) and hospitalizations
- Improve child health through well-child visits, immunizations, lead testing, and asthma management
- Increase the appropriate use of a medical home
  - Increase access to a medical home
  - Improve medical home quality
  - Provide supportive services and parent education
- Advocate for system-level improvements in the delivery of health care to children

To date, more than 5,000 children have been referred to CHAP services, approximately one-third of those eligible. CHAP is in the second phase of the demonstration, which began August 1, 2008. As will be shown below, the program is evolving and expanding to better meet the health care needs of children in Kent County and beyond.

THE DECISION TO INNOVATE

From the beginning, Dr. Peterson emphasizes, CHAP has been a collaborative initiative driven by the commitment of broad, high-level community leadership. First Steps, Kent County's Great Start Collaborative focused on children from birth to age five, saw the promise of a Denver program and brought it to west Michigan. First Steps championed CHAP and forged a partnership among Priority Health, Helen DeVos Children's Hospital, Cherry Street Health Services, private pediatric practices, numerous human service agencies, schools, and private foundations. Dr. Peterson cannot say enough about this partnership: "The extent of the commitment is extraordinary. The local foundations

have funded the program. Everyone comes to the table and they are thinking only about what is best for the children."

Priority Health has been essential to this success. All of the children eligible for CHAP are covered by Priority Health Medicaid. "Priority has contributed not just funding and incentives," explains Peterson. "Its top management met with us every two weeks for two years to get the program running. They have been very supportive on strategy for the community's benefit." Priority's incentives take the form of higher rates to private physicians and the residents' clinic at Helen DeVos Children's Hospital. The health plan also rewards Cherry Street Health Services for reducing hospitalizations and unnecessary ED use.

Dr. Peterson also praises CHAP's program manager, Maureen Kirkwood. "The program is about managing significant change in the way services and supports are delivered to families. It is essential to have a good manager—and Maureen is it." Peterson says that the role of the CHAP office is to stimulate collaboration of the practices and clinics. Kirkwood brings the CHAP practice managers together monthly and providers together quarterly to trouble-shoot and share best practices. "One of the private practices sent nurses to help with Grand Valley State's immunization clinic," Peterson explains. "They go to great lengths to help each other out."

INNOVATIONS IN PRACTICE

Kirkwood's role, of course, is not only to work with providers. In Dr. Peterson's eyes, her office is the glue that unites the partners and families and makes CHAP unique. The office offers technical assistance to improve the "medical homeness" of participating primary care practices, coordinates non-health resources (such as transportation) for families, facilitates parent and child education, and convenes community stakeholders to address systems issues. For example, transportation is a key matter: "The law requires that children on Medicaid get transportation help, if they need it, within three days. For kids with certain conditions, that's just too long. CHAP helps get them to the doctor's office much sooner," Peterson says.

He adds that parent education must include explanation of the importance of using the medical home. For example, medical students and residents sometimes visit patients' homes to talk with them about medication noncompliance. They learned that, in some instances, parents didn't know what "refill" meant.

To sum up the CHAP office's importance, Dr. Peterson says that "it fills the level of coordination that Medicaid managed care lacks. It gets immediate transportation for children and culturally appropriate education for parents. It links with Early On and Head Start. CHAP is in the middle, working with everyone."

Consistent with Blue Cross Blue Shield of Michigan and National Committee for Quality Assurance (NCQA) standards for patient-centered medical homes, CHAP practices and clinics feature patient registries, extended access, performance reporting, care management, links to community services, support for self-management (or, in this case, parent management), and coordination of care.

The extent to which CHAP expands the medical home beyond the walls of the practice or clinic is perhaps best seen in its pediatric asthma initiative. In a concerted effort to address the most prevalent chronic disease in children, the program "connects the dots" among six domains—home, school, medical home, hospital, health plan, and community/neighborhood. CHAP coordinates these domains, as all must be involved if children with asthma are to manage their condition successfully and stay out of the emergency room. This was not easy work—Peterson notes that it took two years for all practices and clinics to use the same asthma action plan.

CHAP is quality- and outcomes-driven, states Dr. Peterson. "There is a dashboard with 12 metrics for asthma," he explains. "We profile offices and compare them. Peer-to-peer comparisons can drive positive change. Practices range from meeting 4 of 12 to 11 of 12 metrics. And we offer the practices support services—how to use a spirometer, for example—so that everyone is improving." So far, the results are very good, with a 30 percent decline in emergency room visits and 63 percent decline in admissions for children's asthma.

Results

CHAP is now seeing more children on Medicaid, and Priority has given $500,000 in provider incentives. Dr. Peterson says that Priority Health has broken even on the project, as the savings from reduced ED use and hospital admissions have gone into enhanced reimbursement for physicians, the federally qualified health center, and the clinics. Overall, CHAP has seen a decrease of 10.8 percent in ED use and a 9.2-percent decline in inpatient hospital admissions.

THE FUTURE

CHAP plans to expand in the future within Kent County and, Dr. Peterson hopes, to other communities across Michigan. In Kent County, new initiatives are under way to address childhood obesity (Fit Kids 360), the leading concern of parents; otitis media management, the number one cause of ED visits in the county; and behavioral health, the biggest concern of providers in the county.

Wayne, Kalamazoo, and several other counties are considering CHAP, and Peterson believes it is a model for caring for children on Medicaid statewide. He emphasizes that it succeeds only when it is localized: "It must be led by pediatricians in a community." A neutral convener with influence—such as First Steps in Kent County—must be present as well. And the program's unique features must be adapted to each individual site, because patient-centered navigation of systems depends on the relationships among practices, agencies, schools, health plans, and community leaders.

Ultimately, Dr. Peterson would like to see CHAP go statewide. He cites North Carolina as a state that sees the value of the program and funds it. The Tar Heel State has 15 hubs of 4–6 practices each. The state supports the medical director in each hub with a $0.50 per member per month payment and the practices are each paid $1.50 per member per month to coordinate children's care. From North Carolina's perspective, this is money very well spent.

Children's Medical Group of Saginaw Bay

PRACTICE PROFILE

Children's Medical Group of Saginaw Bay is a pediatric primary care practice with offices in Bay City and Saginaw. The practice's 5,700 patients, who range in age from birth to 18 years, come primarily from the Thumb area of the state, Bay City, Clio, Midland, Saginaw, and Standish. Providers in the practice include two board-certified pediatricians, a pediatric nurse practitioner, and a physician assistant. Children's Medical Group received patient-centered medical home (PCMH) designation from the Blue Cross Blue Shield of Michigan (BCBSM) Physician Group Incentive Program (PGIP) in July of 2010.

PSC spoke with five people during its visit to Children's Medical Group: Jeff Van Gelderen, MD; registered nurse (RN) Pam Lesniak; front desk manager Amy Kostal; biller Kelli Roth; and quality improvement coach Mike Ruhland. As a participant in the Improving Performance in Practice (IPIP) program, Children's Medical Group received assistance with the implementation of continuous quality improvement practices from coaches provided by the Michigan IPIP program. IPIP is a state-based quality improvement initiative funded largely by the Robert Wood Johnson Foundation and sponsored by the American Board of Medical Specialties. The program was developed to help physicians improve chronic disease and preventive care in the office-practice setting. In Michigan, the program is coordinated by the Michigan Primary Care Consortium and the Automotive Industry Action Group (AIAG).

THE DECISION TO INNOVATE

Dr. Van Gelderen says the decision to implement PCMH and other innovations has been "driven by the physicians." He asserts, "Dr. Thill and I wanted to implement EMR [electronic medical record] and wanted to provide best care to our patients. We saw the opportunity to get into quality improvement programs and looked at financial incentives from BCBSM."

Amy Kostal, front desk manager, describes Van Gelderen as forward thinking. She says, "I guess you could say that Jeff is very up on the latest of everything, so there was no way to go but to charge forward." She adds that the initial direction for implementing EMR and PCMH came from the physicians, Dr. Van Gelderen in particular: "He basically told us this is where we're going and this is what we're going to do, and we agreed."

PREPARING TO INNOVATE

According to Van Gelderen, he and partner Thill knew back in 2008 that they wanted their practice to participate in IPIP, but they first had to implement EMR—a requirement for participation. The practice went live with the billing portion of its EMR in September 2008 and with the medical records portion in May 2009. At that point, IPIP assigned the practice two coaches, including Mike Ruhland. Van Gelderen recalls, "The coaches came out to our practice and asked us what were our biggest problems and hurdles. We wanted to get PCMH designation and we wanted to get efficiencies back that we had lost because

of just implementing EMR. They met with us every two weeks at first, and then once a month." Preparation for implementation of EMR and PCMH has involved "lots of education of the staff," according to Van Gelderen.

Ruhland describes the work he has engaged in with Children's Medical Group as a series of conversations. He says initially, "We talked with staff about how the structure of innovation is prioritized. Many of the people involved in IPIP would do time studies and Six Sigma kind of stuff. This is just a conversation. We used the PDSA [plan, do, study, act] model, but it wasn't a lot of statistical analysis."

INNOVATIONS IN PRACTICE

To move forward with quality improvement innovations, the practice created a team of two people from each department—front desk, billing, nursing, and providers—to become "superusers" for EMR, to disseminate information to all staff on PCMH, and to serve as a core team for the practice's quality improvement program.

Two new tools for identifying and prioritizing quality improvement issues have been developed with the help of the quality improvement coaches. The "white board" is a Microsoft Word document that is accessed through the practice's internal network. Anyone in the practice can make note of an issue or concern on the white board at any time. The other document is a responsibility matrix that lists practice objectives and who is responsible for accomplishing various tasks. Together, these two documents provide a way to ensure that all issues are addressed and that top priorities are identified and handled in rank order.

The team comprising two members of each department meets once a month with the quality improvement coaches. Dr. Van Gelderen says these meetings are

> used to determine priorities for the office. During these meetings, we look at the white board and our practice objectives, we update where we're at, and we assign responsibilities—based on employee responsibilities and desires—and they are added to responsibility matrix.

Ruhland notes, "Every idea gets filtered and prioritized. Everything is ranked based on the objectives of the organization, so the most important things are addressed first."

Prior to working with the coaches, the practice had staff meetings "every three or six months, maybe not even that often," says RN Pam Lesniak. Now the staff meets weekly to review progress and address any barriers on projects listed on the responsibility matrix that are under way. And each department has bi-weekly meetings to address any department-specific issues. The new meeting structure has led to some changes in office communication patterns. Dr. Van Gelderen notes that "Everything used to flow up to me, the practice manger, and then it would flow back down to department managers, but it was centralized." Lesniak adds,

> Communication was very fragmented and difficult. Providers might tell something to one person and think it was getting communicated, but it wasn't. Because of communication improvements, we can talk to each other more easily now.

A tool has also been developed to help moderate staff behavior by providing a structure for assessing one's own efforts and those of co-workers. Ruhland described a teamwork grid that defines good and bad behavior. He says, "Items you would expect in a performance review are embodied in that grid. So everyone here could conduct an on-the-spot review of their colleagues. It enables a structural relationship between employees." The grid, which was developed with staff input, provides descriptions of employee behavior on a scale of 1 (poor) to 5 (excellent).

Lesniak says the staff members appreciate the grid:

> If it's on paper, you can see where you're performing. It offers a concise way to communicate with each other about how we are conducting our work. What I find is that there are a lot of people who started as threes. Now people are working together to be fours and fives.

The practice has begun to focus on high-level functions rather than specific job roles. Each employee has a role in accomplishing the high-level functions. Lesniak notes, "Having a focus on functions has improved how we work together." Ruhland says, "Function is a pretty important word. We spent a lot of time focusing on how to define function, and identifying high-level functions. It's all about understanding how the overall function needs to be achieved, and how everyone can contribute."

Kostal says, "You used to never think to interfere with another department because it wasn't yours. Now all departments interact. It used to be this was your job and only your job. Now we're all expected to work with each other." This mindset was cultivated at the management level, according to biller Kelli Roth: "Dr. Jeff really expected us to each do our own job, but now we are all expected to do different jobs and do as much as we can."

Lesniak says that,

> One of the biggest changes has been the relationships among the front desk staff, billers, and nurses. We used to all have our own jobs and didn't really involve ourselves in what each other was doing. Now, pretty much everything we do affects one of the other groups. Having an understanding of each other's jobs makes us do our jobs better.

These process-oriented activities, along with the new focus on functions, have supported the implementation of several changes to the way work is done and care is provided at Children's Medical Group. Lesniak says that the front desk staff has several new responsibilities that support the work of the care providers.

> The front desk [staff] is now more involved in assisting with chronic disease management and handing out follow-up questionnaires. They're also involved in patient reminders for follow-up and preventive visits. And they have responsibility for running reports to find out which patients need visits for well care or chronic disease care.

Van Gelderen notes, "Nurses now do most of our patient education as opposed to providers. They are freed up to do this because of the work [they used to do] that has been handed over." For example, nurses used to provide patient demographic information to labs. Now the front desk staff have been assigned this responsibility. Roth adds, "We

took referrals over from nurses. [Nurses] are definitely more involved in patient care now. It used to hold up nurses when they would be calling specialists, but now they do other things." Ruhland describes the changes this way: "Everything is structured so the highest value providers are providing the highest value of care that they can."

Another change has required patients to think differently about their appointment times. When an appointment is scheduled for 8:00, this is the time that the patient can expect to see the primary provider. For this reason, patients are asked to arrive 15 minutes prior to their scheduled appointment. When patients arrive, Roth notes that they are "given a half sheet with questions regarding why they are there to prompt them to be prepared for the discussion with the provider."

The changes do not necessarily allow physicians or other caregivers to spend more time with patients, but providers and staff agree that patient visits are more efficient and effective. They believe the patients are receiving greater value during the time they spend in the office. Ruhland says, "All of the time [patients] spend in the office is meaningful, not just the time with the provider. The time the patient is here is all value-added." Van Gelderen adds, "I would say the patients are taken care of by a team instead of a provider. We try to make the most of it and have the visits be as efficient as possible."

Children's Medical Group measures the quality of the care it provides as well as the quality of its administrative activities. Ruhland notes, "There is a specific metric to measure billing errors." Roth says, "The reports we run keep us on track."

The chronic disease on which the practice focuses for the PCMH designation is asthma. Thus, monthly quality reports include patient measures of asthma control. Quarterly quality reports include "what would be considered HEDIS [Healthcare Effectiveness Data and Information Set] guidelines," according to Van Gelderen. "These are things like well-visit rates, vaccination rates, and lead testing. We can track our own progress and make changes to improve our own numbers internally." Ruhland says the reports provide a "better indication earlier of what needs to be addressed."

One activity that the entire practice appears excited about is moving into a new building that has been designed to match the new work flow. Lesniak says in the new building, several improvements will be made over the current office.

> We've improved our signage and geared everything toward getting patients in to see the provider and getting them the education they need after they see the providers. We've also added an additional window at the front desk to help with flow and billers are now behind the front desk instead of being in a separate area. The checkout area is much larger for better flow and efficiencies.

Challenges

Implementation of EMR and PCMH has not been easy for Children's Medical Group of Saginaw Bay. In fact, at the beginning, some of the staff really struggled to maintain their support for the efforts. Lesniak reports, "Nine months ago it was really bad here. We were ready to walk out the door."

Dr. Van Gelderen says,

> We found out several months into implementation that some employees didn't really understand what PCMH was all about. It took a lot of education to understand why we were doing what we're doing. Some thought it was just financial. Now, all staff have had education on PCMH and the chronic care model. Once they could see more of the overall benefits, they came on board.

Roth notes, "A lot of people handle change differently, and it was hard at first. But once you could see how it was going, everybody pulled together." Lesniak adds, "Going through that difficulty makes us appreciate all the more where we are now."

A few external challenges remain to improving patient care to the fullest extent possible. Dr. Van Gelderen noted specifically that a lack of insurance reimbursement for PCMH services beyond what they receive from BCBSM limits the practice financially. He also stated that the "lack of a community interface from an EMR standpoint" continues to limit coordination of care with specialists and hospitals. "There is software to allow EMRs to communicate," he notes. "But it is not available in our area."

TRANSITION TIME

When asked how long it took for the practice to feel like its innovations were fully integrated into the way the office works, Dr. Van Gelderen glanced at a quarterly report of practice data on quality of care, and said, "Six to nine months. That was how long it took us to get back to the same throughputs, but many other innovations were put in place during that time frame."

Lesniak says, "Six months after 'go-live' with EMR we were more comfortable with the flow. The front end started before [nursing staff]." But the practice did not have the luxury of time to get comfortable. She adds, "Two months after we went live with EMR, we started with PCMH and IPIP." Kostal notes, "It was a really busy time when we implemented the EMR, so that was particularly challenging."

As described above, once the EMR was in place, the coaches helped the practice make structural changes to the way the staff work together and ultimately to the way care is provided. These modifications have enabled the practice to absorb changes more easily than before. Because it has put processes in place for prioritizing and implementing changes to workflow and patient care, the practice is hardly daunted by the challenges of implementation anymore. Van Gelderen says, "Now with some structural changes, we can handle challenges in stride. In the language of our coaches, we just 'turn the crank.'" Ruhland adds, "Every new thing that comes along, we can put in place almost immediately because of the structures we've put in place."

PROVIDER AND PATIENT RESPONSE

Biller Kelli Roth says, "For the most part everybody [in the office] thinks [the innovations] are great." Ruhland notes that employee satisfaction surveys have been conducted every six months. These "internal questionnaires show how much it's improved," he says.

Lesniak says, "We would never want to go back to the way we used to do things. But, early on we would question the wisdom of doing things the new way." Kostal adds, "There was initially some doubt, especially among nurses, during the EMR transition. The technology was a little more difficult for some of the less computer literate among us." She notes, "Dr. Jeff is willing to pay to send us to classes if we think they will be helpful to doing our job." Roth adds, "Learning new things has been exciting for most staff, and it pretty much happens on a daily basis."

The patients have also responded very positively to the innovations, according to providers and staff. Kostal says that "surveys have shown that patients are satisfied overall." She says that while the practice requests information from patients more often than it used to, patients find it less burdensome:

> [Patients] have to fill out a form at every single visit, but they are just confirming the information we print out from their records. They like this better than the revised information form they used to have to complete at the beginning of each year.

Lesniak adds that due to some of the changes, "there's a better flow of communication between patients and staff." Speaking of the EMR implementation, she says, "At first it felt like we were too into the computer and weren't as personal with the patients. But for the most part [patients] see the technology and seem very excited about it." The practice has also implemented a Web portal through which patients can e-mail medical questions to providers or request appointments or medication refills. The practice can use the portal to notify patients of needed care or to e-mail documents to patients. Lesniak says, "The patients that use the Web portal love it." Kostal asserts, "We check our e-mail system every time we check out a patient. So people get responses fairly quickly."

FINANCIAL (RESOURCE) IMPLICATIONS

In terms of the financial and resource implications of both EMR and PCMH, Dr. Van Gelderen says, "We've added 1.5 FTEs, but PCMH dollars have offset the cost of additional staff, and hopefully meaningful use of stimulus dollars will offset the cost of the EMR." Van Gelderen bemoans the fact that "BCBSM is the only insurance company recognizing our efforts." But he states, "At this point, we're pretty much neutral financially." Ruhland points out that "It takes effort to make it neutral," making it clear that added reimbursement alone does not ensure financial success with PCMH implementation.

THE FUTURE

As Children's Medical Group of Saginaw Bay looks to the future, Dr. Van Gelderen says he anticipates "more electronic interfaces with specialists and hospitals, better patient self-management, and more health coaching for patients."

Van Gelderen's colleagues are excited to continue to learn new things and maintain the forward momentum. Kostal says the innovations have "made it so much easier to keep track of things. We used to have to look through a paper chart to see who was due for a visit. Now we can keep track of when patients are due for well visits and re-checks better. This results in improved patient care; we're not missing nearly as many." The group has

received some recognition for its innovations as well. Roth says, “My friends at other practices tell me they hear we’re top dogs. It’s nice to be recognized as one of the best.”

Kostal says that “When [Van Gelderen] tells us something new is coming down the line, it’s like, ‘Bring it!’” Roth adds, “We have a crisp functioning group office and now we’ll be in a better facility. It can’t get any better than this.”

Family Tree Medical Associates

PRACTICE PROFILE

Family Tree Medical Associates (FTMA) is a primary care practice in Hastings that provides care to patients throughout Barry County. Patients also come from Battle Creek, Grand Rapids, Kalamazoo, Lansing, and as far as Saginaw. The practice's primary providers include two full-time physicians and two part-time nurse practitioners. A case manager and registered nurses also participate in patient care at FTMA.

FTMA achieved a patient-centered medical home (PCMH) designation from Blue Cross Blue Shield of Michigan (BCBSM) through its Physician Group Incentive Program (PGIP) in 2009, and was recognized as a PCMH by the National Committee for Quality Assurance (NCQA) in January 2010. FTMA is one of only 12 physician practices in Michigan to have achieved Level 3 PCMH recognition from NCQA; that is, it received 75 or more points on the 100-point scale NCQA uses to score practices and met 10 out of 10 of the "must-pass elements" identified by NCQA.

PSC spoke with four people during its visit to Family Tree Medical Associates: Troy Carlson, MD; nurse practitioner Kathleen Carlson; nurse practitioner Brenda Nyenhuis; and case manager Debbie Mays.

THE DECISION TO INNOVATE

Deciding to implement the innovations necessary to become a patient-centered medical home hardly required a second thought at FTMA. The only decisions were "what to do first and how to make it work," according to case manager Debbie Mays, who adds, "We haven't been afraid to change and that's what makes us successful."

FTMA has a history of focusing on patients and a bent toward innovation. The providers in the practice are constantly seeking ways to improve patient care while also increasing efficiency. Discussing PCMH-related activities, nurse practitioner Brenda Nyenhuis says, "We've been doing this for years, but this just documents it."

With the implementation of the electronic medical record (EMR) system in 2007, the providers were excited at the possibilities for improving the care they provided patients. They recognized opportunities for systematically addressing patient care needs while providing individualized care. They also saw the potential for managing health at a population level with the ability to monitor indicators of health among their entire patient load.

This enthusiasm led them to develop many of the patient care practices that helped the practice achieve PCMH designation from both BCBSM and NCQA. Dr. Troy Carlson professes to be "disenchanted with the current medical care system [and] frustrated with the way care is typically delivered. [Medical care] is not about us," he adds, implying that FTMA believes it is about the patients. Carlson views EMR and other PCMH innovations as "tools that can systemize the delivery of health care." Of PCMH, he says, "It allows us to be proactive rather than reactive."

PREPARING FOR IMPLEMENTATION

Much of the preparation for recent innovations at FTMA occurred when the practice implemented its EMR system in 2007. In fact, much of what the EMR allowed the practice to do (e.g., e-prescribing, electronic-based charting, patient registries) is included in the criteria for designation as a patient-centered medical home. Continued refinement of these activities, as well as formal documentation of their efforts for PCMH designation, involves regular in-house training and constant communication among providers and staff.

Dr. Carlson asserts, "We have a culture in this office for training on a weekly basis." Nurse practitioner Kathleen Carlson and case manager Debbie Mays lead the training, which can include discussions of paradigm shifts, updates to the EMR, and new policies. Occasionally, community resources are brought in to assist with providing information and education.

A critical aspect to preparing providers and staff for the implementation of any innovations is including everyone in the discussions. Dr. Carlson notes, "We validate and value others' feelings. We involve everyone in the changes." Kathleen Carlson adds, "We include everybody. Nothing is hidden."

INNOVATIONS IN PRACTICE

Increased efficiency became imperative in early 2009 when the practice went from three physicians to two. The remaining providers faced the challenge of continuing to care for the 1,100 patients who had typically been seen by the departing physician. This led to the implementation of one of the practice's key innovations—two physician-directed patient care teams. Now, all patients are seen either by the Carlson Team (Dr. Troy Carlson) or the Garber Team (Dr. Matthew Garber). In addition to a physician, each team consists of a nurse practitioner, a registered nurse who serves as a case manager, a medical assistant who acts as a flow manager, a phone manager, and a pre-planner. To ensure that team members are prepared to meet the needs of patients, Mays reports, "Each team has a weekly huddle to talk about the upcoming week."

A critical aspect to the way care is delivered at FTMA is that all staff members understand their role and know that they have a role in caring for the patients. Kathleen Carlson describes it this way: "We took it to a level of 'You [the staff] own this.' We empowered staff to be problem solvers. We said, 'You have ownership in the care of patients.'" This approach within the context of a team model has allowed the practice to maintain the 1,100 patients of their former colleague and effectively place the patient at the center of the team.

The front office pre-planner ensures that patient lab work and any other work that should be completed between visits is done prior to a patient coming into the office. According to Dr. Carlson, "the EMR lets us see which labs aren't done, and we are constantly calling patients between visits. The Clinical Decision Support Service on our EMR identifies things patients need beyond the primary issue they are presenting with." The pre-planner also ensures that any necessary paperwork and educational handouts are ready for the patient when he or she arrives. Dr. Carlson notes that having lab results and

other information readily available during the patient visit means that physicians and nurse practitioners have the information they need at their fingertips, which "lets the provider be the decision maker."

The case manager is primarily responsible for assisting providers and patients with chronic disease management. The case manager role is fairly unique, according to Dr. Carlson: "Very few small primary care practices have case managers. She partners with physicians and nurse practitioners in coordination of care for patients with hypertension, diabetes, and attention deficit disorder."

Mays describes how she works with patients who have received a diabetes diagnosis:

> I go into the room before the physician and sit down to talk with the patient. I review their lab work and explain what a diabetes diagnosis means. Sometimes I also help order medication and set up appointments with a diabetes educator and a dietician. After the doctor has visited with the patient, I go back in to reiterate the key points. They often need to hear the information more than once. Then I schedule a follow-up appointment in four to six weeks, when we'll establish goals with the patient for diet and exercise.

During these visits, Mays says it is critical to "meet them [patients] where they're at. We don't just spew information. We really try to understand the patient's perspective."

The idea of meeting patients where they are and involving them in their own care is clearly a principle of care at FTMA. Kathleen Carlson says, "We care by partnering. It does me no good to walk into a room and just decide what needs to be done. We get the best outcomes when the patient is empowered and feels part of the decision." As Mays says, "We empower our staff *and* our patients."

To support patient self-management, FTMA has begun the implementation of a patient portal that allows patients to access much of the information in their medical records and also provides an additional avenue for communicating with providers in the practice. Currently, about 20 percent of FTMA's patients are connected through the portal. Patients are required to come into the office to receive a password and training for using the portal. As Kathleen Carlson states, "We see 'patient-centered medical home' as caring for patients not just when they are in our space, but all the time."

A critical aspect to care improvement at FTMA is frequent review of patient health data. Dr. Carlson carries around a three-ring binder containing a variety of charts and graphs demonstrating progress in Hba1c levels and other indicators of patient health. He says, "We're trying to aggregate patient data across the practice so we can identify outliers—what percent have HbA1c's of less than seven—and identify ways to improve the care we provide as an organization and teams." Carlson's philosophy with regard to the data is, "If we can't measure it, we can't manage it." Mays says FTMA uses the data to identify practice improvements, by asking, "What do we need to do to fix what we have going on?"

In tandem with paying close attention to patient health indicators, the practice ensures that patients with chronic diseases receive recommended care. Dr. Carlson says, "Every month, we look at patients with chronic conditions and ensure they are not lost to follow-

up." Mays and Kathleen Carlson note that a combination of clear guidelines and staff who understand their roles makes this possible. "We've identified parameters for when follow-up is needed," says Mays. Carlson is quick to add, "Other staff makes this happen; this is not all on the physicians and nurse practitioners."

Challenges

Despite what appears to be great success with the implementation of an EMR and the PCMH model, Family Tree Medical Associates has encountered some challenges. One challenge noted by Dr. Carlson is the lack of a health information exchange that would enable FTMA to share patient data with other practices, like specialists. He also notes with frustration the "attitudes outside these walls." He adds, "We need to get more people to see we're in this together," referring to the notion that a relatively small number of practices seem to be embracing the nature of care provided at FTMA.

On a practical level, the practice site is not set up to offer care the way FTMA envisions it will in the future. Mays notes that "the space is not conducive to group visits," which the practice would like to start implementing soon.

TRANSITION TIME

Looking back, Dr. Carlson notes with pride that FTMA lost very little time and productivity when it implemented EMR in 2007: "When we converted to EMR, we were back to full our patient-load in four weeks." As for other innovations, he notes, "There has been no loss in productivity and, hopefully, we have increased patient satisfaction."

Kathleen Carlson points out, "We created a culture a long time ago that this is how things would be."

PROVIDER AND PATIENT RESPONSE

While varying levels of involvement in identifying and implementing changes necessarily exist, the practice has generally not experienced issues related to staff or provider reluctance to adopt the innovations. In fact, when an outside trainer came to the office to help FTMA launch its EMR, the trainer noted with surprise that every employee was attending the training and commented that he had not visited a practice where it was this clear that everyone was a willing participant in EMR implementation.

While some people have struggled more than others, the providers at FTMA believe these are internal issues that are easily addressed during weekly staff meetings when training and dissemination of new information are handled. Mays says, "Change was harder for people who had been here longer. There are only one or two of them left." Among those who remain, Kathleen Carlson says it is her impression that there are "not different levels of enthusiasm, just different levels of involvement. We have created a culture where change is okay."

As for patients, Mays notes, "We have experienced apprehension, but I don't think patients notice this. We have a structure in place so patients are okay with change because they know how things work." Survey results show that patients are largely unaware of any issues among staff. Patient survey findings indicate high levels of

satisfaction with the way the practice works and the care provided. In a recent survey, about half of the 200 patients who responded provided written comments. Kathleen Carlson believes this is because "they know we listen."

What the practice heard was that "there are struggles with our phones and the wait time in waiting rooms can be long. Our goal is to that 85 to 90 percent of patients are in the office no longer than one hour."

FTMA has also made it clear to its patients that they have a responsibility for their own health and health care. Dr. Carlson says, "We have laid out for people what our expectations are. We tell them our philosophy so they can decide if it will work for them. We say, 'This may not be the place for you. You can't just show up when you're sick.'" Kathleen Carlson adds, "Patients know that ultimately it's for them. It's not us trying to get more money. They know our standards are high. They also know we listen." Mays says most patients have chosen to stick with the practice: "When [patients] leave our practice, it's usually because they're moving. If it's due to a disagreement, it's usually clearly understood on both sides."

FINANCIAL (RESOURCE) IMPLICATIONS

Dr. Carlson reports that the investment in terms of both money and time is not insignificant, but FTMA has already begun to see a return on its investment and expects it to grow. He notes that the practice saw a return on investment from its EMR in 16 months. With the implementation of some of the PCMH innovations, Carlson said that "overhead went up a bit with the addition of a pre-planner and case manager," adding that "the practice spent $25,000 to $30,000 in personnel time to put PCMH in place." However, Carlson also says that efficiency has increased—he can see 30 patients in a day and still be done by 5:15 or 5:30.

Kathleen Carlson also says it is "hard to identify the value added from the care we provide. There is no way to monetize the value patients receive from just feeling better."

THE FUTURE

FTMA's providers will continue to seek ways to use technology and implement innovative practices they believe will improve patient care. As noted above, the practice would like to implement group visits, especially for patients with diabetes. Staff members also look forward to the possibility of EMR interconnectivity and being able to exchange information with other practices, which would contribute to their participating in "true population management," as Dr. Carlson puts it.

Ideally, Dr. Carlson says, "I look forward to not having to worry about how many patients we see—we all know how many we need to break even." In the meantime, Kathleen Carlson and Debbie Mays say, the practice's providers will continue to carefully examine and improve the care they provide. Carlson says, "We're always looking at what's wrong to see what we can do better." Mays adds, "We're not afraid to take a look."

Gratiot Family Practice

PRACTICE PROFILE

Gratiot Family Practice is a primary care practice located in Alma, Michigan. The town is home to 9,000 residents; an additional 50,000 residents live in surrounding areas. This rural community's largest employers are the local hospital and Alma College. There are also a number of family farms in the area. Gratiot Family Practice employs a total of 25 staff, including three full-time physicians who own the practice, one full-time nurse practitioner, one full-time physician assistant, and one part-time physician assistant. Other caregivers and staff in the practice include a practice manager, one registered nurse, six limited practice nurses, and two medical assistants. Gratiot Family Practice is a member of the Gratiot County Medical, PC, and became a patient-centered medical home (PCMH) certified by Blue Cross Blue Shield of Michigan in June 2009.

PSC spoke with seven people during its visit to Gratiot Family Practice: Dr. Gregg Stefanek; practice manager Sandy Young; nurse practitioner Lisa Bigelow; nurse educator Laura Fletcher; public health intern Elizabeth Payne; patient representative Judy Hersey; and biller Dawn Cooper.

THE DECISION TO INNOVATE

Gratiot Family Practice started using electronic medical record (EMR) in 2006 after recognizing the inefficiencies created by using paper. The physicians also had a general understanding of how technology could influence the future of practicing medicine, by creating efficiencies and the ability to better manage their entire patient population. Dr. Stefanek says that once the practice transitioned to using EMR, "It changed everything." The staff saw how EMR allowed them to do things they had not been able to do with paper files. This encouraged the physicians and mid-level staff to seek other innovative models to better serve their patients. The patient-centered medical home appeared to bring all of the providers' values and patient care ideas into one model. Lisa Bigelow says:

> Now we have a solid foundation as to how we practice. It's our philosophy. It is how we have all wanted to practice and take care of our patients. We are drivers to patients taking care of themselves. We're there to counsel and give them information. We're the experts of their health, but they are the experts of their body.

Dr. Stefanek notes that he also saw some financial advantages to implementing PCMH, and he believed they needed to pursue it to stay up with or even ahead of current practice standards. Stefanek says that the transition to the PCMH requires a lot of work; he notes the importance of having support from the practice manager to drive the process and help gain buy-in from all of the physicians in the practice. He comments that the practice manager had a "willingness to learn and step out of the traditional practice manager role."

PREPARING FOR IMPLEMENTATION

Both the EMR and PCMH processes were defined and agreed upon from the beginning with the doctors of the practice. Dr. Stefanek says, "We didn't prepare ourselves enough when we started the EMR. We needed to work on the culture and environment to make sure our staff was prepared for the changes with the PCMH." To reduce costs when implementing the EMR, the practice had only two employees trained on the use of the EMR. These employees then served as a "go-to" team who did most of the work of implementation and training the rest of the staff. When the practice implemented the PCMH model, *everyone* was involved in the process.

The practice manager and doctors held an in-service with all of the staff to describe the PCMH model, what they were trying to accomplish with PCMH, and what it would look like from the perspective of both the practice and the patients. They also worked with the staff to create a vision and set goals for the practice. A team was then assigned to create a "Responsibility Matrix" to track activities toward achieving the vision and goals.

INNOVATIONS IN PRACTICE

Gratiot Family Practice providers and staff have made many innovative changes since implementing the PCMH, including altering the way staff communicates, providing more opportunities for professional development, making changes to roles, and improving patient education. There are also plans in place to change the physical layout of the office when construction of a new office building is complete.

Although most staff interviewed believe the office has generally practiced good communication, everyone mentioned there has been a significant improvement since PCMH implementation. The practice now conducts "morning nurse huddles" to better organize each day as the nurse staff transition from working with one doctor to another each day. Recently the practice manager, Sandy Young, facilitated a meeting between office staff and nurses to discuss frustrations. Young notes that not everyone has the same work load since the implementation of the PCMH. Having open communication among staff helps everyone understand the various roles of team members. Nurse practitioner Lisa Bigelow also notes that since staff and nurses feel more empowered with the implementation of the PCMH, it's not as intimidating to seek out supervisors or doctors for feedback.

The physicians of the practice have begun to develop a culture of learning and growing that was absent before PCMH implementation. The doctors encourage staff at all levels of the practice to gain additional training for skill development. This has resulted in staff having "more of a can do attitude," according to Young. Dr. Stefanek says that the staff is expected to do more, and is empowered to do more. For example, the practice has implemented a plan-study-do-act (PSDA) model for quality improvement. Any staff member has the latitude to test a method to improve how the practice delivers care and report back to the entire practice on its successes and challenges. The staff as a whole then decides whether the method will be implemented office-wide or whether additional testing needs to be done. At the time of the site visit, a medical assistant was in the process of testing a system to gather patient information. In this system, patients are asked to complete a card containing three questions when they arrive at the office. The

questions ask patients to describe the reason for their visit, what they need to gain better control of their health, and what is most important to them regarding their health. After the medical assistant tests the question card method for a length of time, she will report back to the staff whether it was an efficient method for gathering information on why the patient was in the office to see the doctor.

Through the PCMH, the doctors have also begun to use their nursing staff to their fullest capacity. Nurses have become more involved in prepping patients before they meet with the physician, and a new nurse educator role has been created. The practice employs a licensed practical nurse who is used solely for patient education two days a week. The nurse educator conducts follow-up calls with patients recently discharged from the hospital. The practice has found that about 30 percent of newly discharged patients have had questions that may otherwise have gone unanswered. The nurse educator also meets with diabetic patients for 45 minutes prior to their appointments with the doctor to talk with them about their diet, insulin usage, and how to use monitoring equipment. This has helped doctors utilize their time with patients to reinforce and solidify what the nurse educator went over with the patient and prescribe any medications. Dr. Stefanek notes that patients now leave the office empowered with information about how to control their diabetes.

The nurse educator has also started using the EMR to pull lists of diabetic patients in order to make contact with those who have not had an office appointment in the past year. Seventy-five patients were pulled from the records. Out of the 50 initial contacts, 8 appointments were made to see the nurse educator and doctor. They learned from this exercise that most of the patients have moved out of the area, but those still in the area are being seen by the nurse educator and doctor. The practice is beginning to implement the same process for all patients who have not had a physical in the past year.

Gratiot Family Practice is in the process of building a new office so that the physical environment is more conducive to the new ways that it delivers health care. According to the practice manager, the new office will have physician and nurse workstations placed in the middle of an area with patient rooms on either side. This will enable nurses and physicians to work together more easily than the office's current design allows. The new office will also provide space for conducting group visits.

Challenges

Those interviewed at Gratiot Family Practice say that adapting to changes (e.g., technology), maintaining internal communication, integrating new roles into the practice, and engaging area specialists are some of the challenges they have faced in implementing the PCMH. They have also experienced continuing struggles with implementing and using several features of the EMR.

Adapting to change appears to be a generational issue, according to staff and providers. While everyone is open to the changes, some have had a more difficult time adjusting to the changes, especially some of the new technology.

Nurse educator Laura Fletcher notes that maintaining internal communication is something that could turn into a challenge:

> If we're not communicating with lots of new things going on, then that can lead to problems. We all want to give good patient care, but if it's not communicated in the group then that can get in the way.

Dr. Stefanek describes the integration of new roles—the nurse educator, in particular—as another challenge that the practice is working through. Stefanek says that the responsibilities of the nurse educator were pretty vague when the position was first created, but he feels that they have laid down a strong foundation to use the nurse educator to do even more. For example, the nurse educator is helping Stefanek develop patient checklists for the doctors to use when seeing patients with a chronic disease.

Implementation of an EMR has also proven challenging for Gratiot Family Practice. The electronic billing feature has never worked, according to biller Dawn Cooper, and the billing staff still bill manually. Dr. Stefanek claims that the automatic patient checklists in their EMR system do not work either, which is why he and the nurse educator have been developing their own paper checklists. The practice is continuing to work with its EMR provider to work out these issues.

The practice is working to educate specialists in the area on the PCMH model. Dr. Stefanek regularly speaks to practices in the area about the benefits of the PCMH. Bigelow said that under the new model, doctors want patients back in their office for follow-up after seeing specialists or other providers, thereby improving continuity of care. She adds that they would like to work with specialists to help treat the patient: "Sometimes a patient is more willing to tell us what they will or won't do (e.g., take a medication prescribed by a specialist)." Bigelow stresses that they are there to help the specialist and the patient understand what's happening with treatment. Young has begun reaching out to specialist offices to talk about a universal referral form the practice would like to begin using and other ways the practice could strengthen relationships (e.g., improved communication, understanding of expectations in specialist consultation).

Although challenges continue to occur, those interviewed are confident in the team's ability to work through any challenge. Bigelow claims that what has been most bothersome to her about the innovations was "not being able to get them implemented fast enough. Once you start generating ideas, more and more come."

TRANSITION TIME

The transition to using EMR took at least two years and is still a work in progress. The transition to the PCMH was described as an ongoing process by more than one staff member. Dr. Stefanek says:

> Changing a family practice is like changing a tire on a bike while you are riding it. It takes time to make changes to the system. PCMH is a journey, changing the way care is delivered. It is difficult to change proactively. You need to have processes in place to change and people to do [the work]. We are learning that the [current health care] system has gotten to value tests, but the PCMH is getting back to the doctor/patient relationship, really meeting [the patient's] needs instead of focusing on the test.

Public health intern Elizabeth Payne says that the staff is "never really sitting back relaxing. It's continually changing and challenging practices."

PROVIDER AND PATIENT RESPONSE

Opinions of the innovations put in place under PCMH vary among staff and providers at Gratiot Family Practice. There are staff members and providers that have been practicing a certain way for 35 years who find the changes difficult, but there are also people who are excited and motivated to change. Says Dr. Stefanek:

> You always need to think about how it is going to affect the patient and meeting their needs. Most staff doesn't look at this just as a job, but as an opportunity to affect a person's life. We emphasize that for the staff…. I like the change. For example, I like giving a patient a physical and having their test results by noon. It has gotten me back to the reasons that I got into medicine. I may not be able to cure cancer or diabetes, but I am able to give patients tools they need to take care of themselves.

Young notes that the efforts to fully engage all staff have resulted in a positive response from staff. She says that there has been a lot of open communication with all staff. Dr. Stefanek and Young stress that innovations and technology will not work unless you have the people behind it and leaders who are willing to allow their staff to do what they are capable of doing.

The patient response to PCMH implementation has been very positive, according to providers and staff. Dr. Stefanek says that his patients e-mail him with questions, and responding to e-mail requires no additional work on his part. He notes, though, that some patients expect more from him and his staff now: "The better you get the more they demand." The practice started sending out a regular newsletter and has received positive feedback about it from patients.

Dr. Stefanek and Bigelow agree that the PCMH gives their practice a competitive advantage in attracting patients and clinicians. Stefanek suggests that keeping the focus on the patient and how they serve the patients will lead patients to offer positive comments about the practice when they are asked about their doctor.

FINANCIAL (RESOURCE) IMPLICATIONS

When asked about the financial implications of implementing the PCMH, those interviewed spoke only of financial benefits. The practice has experienced a $42,000 increase in reimbursements in one year; and the physicians have received a substantial incentive bonus. Blue Cross Blue Shield of Michigan is paying 10 percent more for office visits, which has covered the cost of additional staff hired since implementation of the PCMH model.

THE FUTURE

When asked what excites him most about PCMH implementation, Dr. Stefanek says, "I am looking forward to every patient saying that they are getting what they need to be confident in managing their own health." Young adds that she is excited to be able to help patients set goals and prepare them with the knowledge they need to be healthier.

She is also excited to use the nurse educator more to help patients manage their health. Bigelow believes that they have built a strong framework and have the potential and ability to be a premier practice in the state.

Stefanek, Young, and Bigelow are also looking forward to implementing group visits. Each 90-minute appointment will be attended by 8–10 patients and facilitated by a doctor and a social worker. Half of the group will complete the physical portion of the appointment during the first 30 minutes. The education/self-care portion of the visit will take place in the group setting during the second 30 minutes with all patients present. Finally, during the last 30 minutes, the other half of the patients will complete the physical portion of the visit.

Nurse educator Fletcher is not only happy to see how well patients have responded to the changes, but she appreciates the opportunity to develop professionally, thereby increasing her job satisfaction. She sees the PCMH as win-win-win for doctors, nurses, and patients. The public health intern has been excited to see how the practice connects patients to the resources within the community. Doctors and nurses take time to talk with the patients about resources available in the community and direct patients to services to help them.

Henry Ford Health System – General Internal Medicine

PRACTICE PROFILE

The General Internal Medicine Clinic at Henry Ford Health System is housed within the Henry Ford Hospital in Detroit. The clinic employs 19 full-time physicians, and trains approximately 40 residents from Wayne State University each year. The clinic sees approximately 50,000 patients per year and has 25,000 active patient files. Of those, about half are Health Alliance Plan (HAP) beneficiaries and the others are fee-for-service. Clinic staff estimates that 60 percent of patients are residents of Detroit, and the remaining are suburban residents referred by specialists in the hospital.

PSC had the opportunity to speak with William Keimig, MD, division head of the practice; Katherine Scher, registered nurse, project manager; Brian Boutell, practice administrator; Robert Brooks, Lean project manager; Beverly Cooper-Edwards, registered nurse, nursing supervisor; physicians Nicole Rocco, MD, Sean Drake, MD, and Vinay Shah, MD; nurse practitioners Christine Bongo and Terri Brown; Sandra Nowak, PharmD; and three nurse case managers: Loretta Briden, registered nurse, Juli Testy, registered nurse, and Kelly Dimick, registered nurse. The Henry Ford System has 26 primary care sites that have received patient-centered medical home (PCMH) status from Blue Cross Blue Shield of Michigan (BCBSM).

THE DECISION TO INNOVATE

In 2006, Dr. John Popovich Jr., then the chair of internal medicine, took great interest in the medical home model as a mechanism to attract and retain internists. With an impending physician shortage, especially in the field of primary care, the Henry Ford System began exploring how to more efficiently use doctors' time while still serving a growing number of patients. So, in 2006, two sites were chosen to pilot medical home models—the general internal medicine clinic housed in the hospital and a general internal medicine clinic in Taylor, Michigan. Senior physician leadership chose the sites because they were very different from each other in size, patient make-up, and location.

PREPARING FOR IMPLEMENTATION

Katherine Scher was designated to implement the patient-centered medical home. The goals for implementing the model were explicitly laid out, including promoting a sustainable model of care; cleaning up processes; and implementing case management for patients. Scher began by attending workshops held by Blue Cross about Lean management. This management system looks closely at business processes to identify waste and then makes changes to streamline those processes for improved efficiency. For example, the practice found that, in the course of one day, a physician was interrupted on average 90 times. By identifying what prompted those interruptions, the practice was able to identify areas that needed improvement, including communication between nursing staff and doctors. The check-in and check-out processes were also revised.

Since attempting to modify the entire practice was too difficult, one section of the practice transitioned to the new model to work with patients who had chronic conditions. Nurse practitioners and nurse case managers were brought into the practice for this. Two physicians were asked to give up their offices to make room for the case managers. The practice also decided to work with patients to create a "patient advisory team" for assistance in implementing changes that were beneficial to patients. The new model "went live" in October of 2007.

INNOVATIONS IN PRACTICE

The medical home model implemented at this practice was focused on relieving physicians of administrative responsibilities so they could concentrate on making the most of their time with patients. This model also relies heavily on the assistance of nurse case managers to provide follow-up and education to patients. Case managers and physicians meet weekly, or more often if necessary, to discuss patient cases. Regular communication is an integral part of the success of this model.

Responsibilities for patient care have been expanded for nurse practitioners to allow doctors more time to focus on problems instead of routine, ongoing care. Case managers have seen expanded responsibilities also. Initially, case managers had to spend a lot of time educating physicians on the role that they could play in patient care. Guidelines were developed to help identify patients who would most benefit from case management referral. Case managers strive to provide as much support and education to patients as they can. Web-based information access has become vital, and patients learn that they can call their case manager with questions at any time, instead of going in to see the doctor.

Medical assistants (MAs) have also become a valuable part of this model. Each physician works with one MA, who has direct access to the physician. This has allowed for expansion of the MA contact with patients. The MA must also be familiar with each patient coming in to obtain the appropriate information on the problems the patient is experiencing. This has increased the MAs' stake in how the practice operates, and led to greater job satisfaction for assistants.

Physicians have learned the benefits of the model and worked to improve the patient experience. A personal action plan has been developed to assist doctors in their discussions with patients during appointments; the form also helps facilitate communication between doctors and case managers about the content of the appointments. With the action plan in hand, case managers can easily see what the doctor's instructions were to each patient, and follow up appropriately. These action plans have helped to streamline patient appointments. Additionally, physicians have learned that occasionally they must spend more time reviewing patient records prior to appointments in order to reduce the number of interruptions. For example, if a patient had been instructed to have labs completed but the results have not yet been transferred to the patient record, the appointment might be rescheduled or the labs expedited so that the appointment can be productive.

Another mechanism employed by this practice is tel-assurance, a program for heart failure patients who require daily monitoring. The patient can call in to an automated

phone number and answer questions. The case manager then reviews the answers and determines immediately whether the patient is stable or requires closer observation. Doctors routinely work with patients to encourage them to participate in their own care in this way, and patients feel more invested in their health outcomes.

The practice has also implemented the shared medical appointment model for diabetic patients. Appointments are held on weekdays in the early evenings. Eight sessions are held, with one physician, three alternating nurse practitioners, and one medical assistant providing care and education. Patients are referred by physicians, and then scheduled into two-hour appointments.

Finally, the internal medicine clinic has pharmacists on the patient care team. The goal of the pharmacist is to educate both physicians and patients on medications, primarily on the use of generic versus brand-name pharmaceuticals. The pharmacist essentially case manages patient prescriptions and works to identify options that will achieve the best outcome for each patient's needs. While the pharmacists usually work in an advisory capacity, they can be booked into patient appointments, have full access to each patient's medical records, and have access to other specialists within the system. Consulting a pharmacist has proven beneficial for patients with complex cases and, generally, patients who better understand the medications they take are more compliant in their use.

Challenges

Bringing about such drastic change to the traditional patient care model certainly involved challenges. The most common was initial resistance to a team-centered patient care approach. Physicians were reluctant to let go of care responsibilities, feeling that their dedication to their patients was being jeopardized by allowing others to take over functions they deemed vital to care. Creating teams to care for each patient forced physicians to redefine what practicing medicine means. Once the system was in place, however, physicians learned that this model actually gave them more time to focus on practicing medicine and looking at more complex patient issues, rather than routine day-to-day care.

Communication was also a challenge. How did the practice ensure that all of the necessary information reached all of the necessary people on the care team? Simple solutions, such as checklists, were developed, so that each member of the team was looking at and working from the same materials.

TRANSITION TIME

About one year elapsed from the time that the medical home model was introduced to its implementation. During that time, all of the planning, training, and physical changes were taking place to ensure success. Once the model "went live," it took about three months before it was considered sustainable. The concepts that had initially been difficult for care providers to grasp—discharge checklists, case management referral, pharmacist advising, and others—became routine.

PROVIDER AND PATIENT RESPONSE

Both patients and providers have responded very positively to the changes at this Henry Ford practice. Physicians feel that the time they spend with their patients is more productive. They feel that the new model has made practicing easier and has improved the quality of the time they spend with patients. Other staff members, such as nurse practitioners, medical assistants, and pharmacists, have become more invested in patient care.

Many patients have created solid relationships with case managers and feel comfortable calling either the case manager or medical assistant with issues, instead of making an appointment to see a physician. When they do see their physician, patients like leaving with concrete directions and feel more engaged in their own care. As the clinic is located in a hospital, this model has made the transition from inpatient to outpatient care much better, and has significantly reduced hospital readmissions. The patients who have been able to participate in this model say they are more satisfied with the quality of care—and, by objective measures, care has improved significantly.

FINANCIAL (RESOURCE) IMPLICATIONS

Because the practice is designated a PCMH through BCBSM, a reimbursement incentive is provided, which offsets the additional costs of this care model. Also, the implementation of the model has been successful in retaining physicians, especially those who have completed a residency and practiced using this model. It also helps to retain mid-level providers, who feel more involved in the patient care continuum.

The case management portion of the model is funded separately, but because the practice is part of such a large health system, it has been able to receive the support necessary to maintain case managers.

THE FUTURE

In the future, the leadership and administration of this practice hope to further streamline the patient experience, making it more efficient for all involved. Streamlining the pre-appointment phase is one area that the practice is working diligently to improve. Offering this model of care to all patients is also something members of this practice hope to achieve. To do so, however, larger savings are necessary to pay for the additional staff required to offer case management services to all patients.

Infinity Primary Care

PRACTICE PROFILE

Infinity Primary Care has 10 office locations in Southeast Michigan. The entire practice has 50 physicians, 50 residents, and 200 employees who serve approximately 80,000 patients. The Livonia office, which was the subject of this site visit, serves approximately 10,000 of those patients and has 11 physicians and 25 staff members, including a clinical nurse manager and a practice manager, 3 registered nurses, and 10 medical assistants. Infinity Primary Care received patient-centered medical home (PCMH) designation from the Blue Cross Blue Shield of Michigan (BCBSM) Physician Group Incentive Program (PGIP) in 2009.

PSC spoke with two people during its visit to Infinity Primary Care: medical director Kevin Deighton, MD, and office manager Pat Slusarz.

THE DECISION TO INNOVATE

Dr. Deighton says the "big thing" that motivated Infinity Primary Care to implement innovative practices was the health care market: "We realized that we have to innovate in order to provide better medical care and stay competitive." Pat Slusarz adds that the practice received a push from its affiliated hospital:

> We started [with our innovations] when Providence told physicians that they had to go on their own. We had to start looking at doing things other than how the hospital always told us to do things. That started with the EMR, which changed everything, including how we worked with patients.

Deighton says the practice chose the electronic medical record (EMR) after asking the Michigan State Medical Society (MSMS) for some help. The MSMS put the practice "in touch with a consultant who helped us review four vendors," Deighton recalls. "This is mainly a physician-owned group," he adds, "so physicians made a decision to go with EMR. Most of us were ready. Only a few dragged their heels."

PREPARING TO INNOVATE

When preparations began to achieve PCMH status, Dr. Deighton says the practice looked at what its EMR data could reveal about the practice's current level of quality:

> Physicians always assume they are practicing the highest quality of medicine. When we looked at EMR data, we realized we needed to put some changes in to improved quality of care. But we also realized, the physician can't do it all by himself. We needed to implement a team approach, which really meshes with PCMH.

Slusarz says, "We had a lot of meetings with staff to talk about how things would change for them and to ask if they thought we could do things differently." Also in early 2009, Slusarz recalls,

> We became a part of IPIP [Improving Performance in Practice] and we had to start looking at everything we did at that point and decide if it was efficient or if

> we could do things in a better way. We looked at job descriptions and what everybody did and how to change it to benefit the patient.

INNOVATIONS IN PRACTICE

The use of data and a team approach to care have been the hallmarks of PCMH implementation at Infinity Primary Care. Patient care is now provided by a team comprising a physician, a medical assistant (MA), and a clerical staff person. Slusarz says, "The physician knows he can task a front desk person to make calls, and the MA can put information in the EMR to help with the visit."

Dr. Deighton adds, "We have involved support staff with a lot more patient care activities." Care is especially intensive for the practice's diabetic patients. Deighton says,

> Several lead physicians in the practice have been meeting every two weeks to look at how our IPIP process is going. We have developed a protocol to more aggressively treat HbA1c levels. The protocol is designed for increasing levels of intervention and addressing types of medication.

Slusarz notes, "Front desk staff call diabetics two days before their appointment to remind them what they need to bring with them and what they need to do to prepare for the visit." In addition, a medical assistant who was hired to head up quality assurance "reviews EMR reports and sends out letters to get people in for visits. She also monitors reports from insurance companies every month. They let us know if we haven't done [HbA1c] tests on patients recently."

The practice has also hired a diabetic educator, who meets with newly diagnosed patients individually for an hour to "explain things about their diagnosis" and work with "any diabetics we had trouble getting under control," explains Slusarz. She claims that "patients really took to her and they did seem to improve after seeing her."

Another aspect of improved care for diabetic patients has been the implementation of a guided support group called Journey for Control. A nurse meets with a group of diabetic patients to offer education and support on a weekly basis for four to six weeks. The program has been in place for about a year and "patients have responded very positively," according to Deighton. He notes, "Patients are reporting they are doing better, and we're seeing some improvements through our IPIP tracking."

For diabetic patients, Deighton says,

> Now we're looking more at data, and if a patient hasn't returned in three months, we call the patient to remind them to come in. We're also tracking labs and referrals to make sure things are being completed. The big thing is eye exams for diabetes. We contact the patient to find out who they saw and contact the physician to send us their notes.

Tracking and follow-up is not just reserved for diabetic patients. According to Deighton, "Now we're tracking all labs and referrals. We're making sure patients are going through with X-rays, and then patients are called. MAs print out a tracking report every month and they make calls to patients when necessary." Data tracking and patient tracking have helped the practice improve care across its patient population. He continues:

> The implementation of EMR allows us to better track our data to look at our average A1c, average LDL, and other numbers. We can then try to improve the care of people who aren't hitting target goals. Now that we're contacting patients we weren't seeing, it improves everything: our [quality] scores, the bottom line, physician interaction with patients, and patient care.

While the providers at Infinity Primary Care are not necessarily spending more time with patients, Deighton says they are spending "more quality time." Again, he credits the data: "A lot of it is having the data available so you're not hunting after it. It's available right now, so we can interact more efficiently with the patients." Slusarz says MAs are responsible for making much of the data so readily available:

> When the patient comes in now, the MA will put in current medications, vitamins, anything like that. Physicians used to do this themselves. The MA will also ask [diabetic patients] the last time they had a foot exam or saw an ophthalmologist, and they'll put this in, so the physician doesn't have to search for the information.

Another big change for the practice is that "physicians are doing their own billing," says Slusarz. She adds,

> It's been a learning process for them. Physicians have to think about the codes they're using. It's had a big impact. Before, they didn't really pay attention—the front desk was doing most of the billing. It's more efficient now and the coding is more accurate.

Challenges

Infinity Primary Care is plagued by two primary challenges, according to Deighton and Slusarz. First, members of the practice are frustrated by the inability of their EMR to interface with those of the local hospitals. "Electronic interfaces are not where they should be by now. St. Mary's and Providence are on two different systems, neither of which interface with NexGen," says Deighton. Slusarz adds, "It would be much better if [the systems] talked to each other, and we could download labs right into the system." Currently, staff have to manually enter lab results into the practice's EMR which, Slusarz notes, increases the possibility of errors.

Another challenge, according to Deighton, is the importance of considering which activities are reimbursed by health insurers. He states, "There are costs associated with doing these things. You have to closely monitor costs. You're hindered by some limitations of what will be reimbursed." He adds, "The real goal is to improve the health of the patients we serve, but it seems like there are barriers related to reimbursement." As an example, he describes how he would like to send an MA out to people's homes or workplaces to check their glucose and blood pressure, or to do immunizations or flu shots. "The problem," he says, "is that you can't get reimbursed for that. I would like to work with some innovative insurers to do this."

PROVIDER AND PATIENT RESPONSE

The implementation of practice innovations at Infinity Primary Care took getting used to for some of the providers and staff, say Deighton and Slusarz. When the practice moved

to a team approach to care, Deighton notes, "For some physicians, it was difficult, but that's the minority." Now, he says, "I think generally the doctors see it as improving quality of care." Speaking from the staff perspective, Slusarz notes, "In the very beginning, it was 'This looks like more work for me.' But once we built our teams and people started working together, the staff was much happier than they were before."

As for the patients, Slusarz and Deighton say are handling the changes in stride. Deighton notes, "Most of them embrace it, but it's still not crystal clear as to how it actually affects them. A lot of it is behind the scenes. We have SMART [Specific, Measureable, Attainable, Realistic, and Timely] goals that we want to work on with the patient, and generally they have responded well."

Slusarz says "Most of [the patients] are really happy with the changes." She adds, "They spend less time trying to check in and less time waiting for return phone calls because most things they are calling about can be handled right away with the EMR."

Deighton asserts that patients have begun using the practice's Web portal as well, through which he can send them "results from labs the same day I get them back." Patients are using the portal to request refills and appointments, and to ask questions of the physicians.

FINANCIAL (RESOURCE) IMPLICATIONS

When asked about the impact the innovations have had on resources—financial and otherwise—Deighton notes that implementation of the EMR has had positive downstream affects. He says it "brought in PCMH, which brought in additional revenue. EMR has also helped avoid reductions in cash flow. We've done a better job of collecting owed money at the time of service." Slusarz adds that the practice "doesn't rely on a billing service not located on site. We can run reports every morning on the patients coming in and see their balance due. We have a collections department that will work with them to set up payment plans."

Slusarz also says that the EMR implementation "made us see that we were top heavy in some positions. EMR has brought down our staffing. EMR makes the front desk more efficient. I didn't need two or three people at each desk. We had seven medical record clerks. We're down to one." Deighton says, "It's a huge financial investment, but it has absolutely paid off, and it has created efficiencies."

The PCMH aspect of Infinity Primary Care has provided the practice with the potential for new relationships with hospitals. Deighton states, "Our innovations have allowed us to participate in discussions about ACOs [Affordable Care Organizations]. We are rightfully seen as a high-quality practice, so hospitals in the immediate area are contacting us about being part of an ACO."

THE FUTURE

As Infinity Primary Care looks to the future, Dr. Deighton envisions trying new approaches to patient care. For the diabetic patients, he would like to implement "a Saturday group visit with a pharmacist, a diabetic educator, a dietitian, and a physician. Patients can rotate among the different providers to gain different knowledge. This builds

on our team approach to care." He also is exploring ways to "reach out to our patients and team up with food services and supermarkets. For our diabetic patients, they could get a discount for fresh fruit. That's something we're just starting to take a look at. I'm estimating 8,000 to 9,000 people have diabetes in our practice."

In the meantime, Deighton and Slusarz are happy with how their current innovations have allowed them to improve the health of their patients. Deighton says, "We can take a systems approach to improving care and we're data driven. There are more quality physician-patient interactions." Slusarz adds,

> It's exciting to be able to identify your patient population—how many diabetics and asthmatics. Trying to get a handle on that was impossible with paper charts. The data is there. You can pull up the data and get a better handle on what your population is and what it needs.

Michigan Medicine Specialists

PRACTICE PROFILE

Michigan Medicine Specialists (MMS) is a primary care practice located in Sterling Heights. The practice moved in January 2008 to its current location from St. Clair Shores, where it had been situated for 20 years. About three-quarters of the practice's patients come from the St. Clair Shores area, and the remainder are local to Sterling Heights. MMS only sees patients aged 18 and over, and about 75 percent of its patients are on Medicare. Dr. James Clinton is the sole physician in the practice; his wife Denise Clinton is the practice's nurse practitioner. In addition, the practice employs one registered nurse, two medical assistants, five part-time front desk staff members, and one office manager.

MMS was designated as a patient-centered medical home (PCMH) through the Blue Cross Blue Shield of Michigan (BCBSM) Physician Group Incentive Program (PGIP) in June 2010. PSC spoke with four people during its visit to Michigan Medicine Specialists: Dr. Clinton; nurse practitioner Denise Clinton; office manager LeAnne Rubino; and medical assistant Erika Kelley.

THE DECISION TO INNOVATE

According to providers and staff at MMS, applying for PCMH designation from BCBSM was a logical next step for the practice based on the type of care they were accustomed to providing. Dr. Clinton says that some research he did on PCMH "combined with quality improvements we were already making in the practice made me think this would be a good thing to take us to the next level in patient care." He recalls thinking, "We already do a lot of it. Let's just document it."

Denise Clinton recalls having early conversations with a BCBSM representative who talked to the pair about what was involved in PCMH designation: "When she started talking about the criteria, we thought, 'We do all this now.'"

Office manager LeAnne Rubino says she began researching the specifics of how to apply and more about the requirements at Dr. Clinton's request. She found a helpful partner in Physician Organized Healthcare System (POHS), a provider organization to which Dr. Clinton belongs. POHS was willing to assist the practice with implementation, including providing some staff training, and, Rubino says, "POHS offered a huge incentive to become certified." She adds, "Our doctor has already delivered this quality of care and now he's getting recognized and paid for it. This is him 110 percent. The office has had to make some changes, but the doctor didn't."

Dr. Clinton says he believes his practice may have been in a somewhat unique position to move more or less seamlessly into a PCMH designated office.

> There are a lot of practices that don't do what we do, and when we say it wasn't that big of a change for us, they're gonna go, "Yeah, right." But we looked at it as win-win situation because we were doing it already just needed to put it into process and document it.

PREPARING TO INNOVATE

In describing how staff in the office were prepared to move forward with PCMH implementation, Rubino says her strategy was to do it "slowly and positively. It can be overwhelming, so we had to move slowly and communicate positively about it."

Medical assistant (MA) Erika Kelley says that "LeAnne started [the process]. She learned from Carolyn at POHS and showed everyone in the office what she had learned." She says POHS also provided staff training: "Carolyn came in to do a PowerPoint presentation about PCMH and what we needed to do. Then we implemented Ariphron and made some chart-based changes."

Ariphron is the patient registry MMS implemented as part of its bid to become designated as a PCMH. Rubino has had primary responsibility for implementing the registry. She notes that it is "Web-based so there was no installation, and POHS has an arrangement with Ariphron, so the first year has been free." The work to get the registry populated, however, has been time-consuming and is ongoing. In a span of six weeks, Rubino put a year's worth of chart information into the registry for each of the practice's 89 diabetics. Rubino says she is "teaching an MA to put in the data, so she can help out [with the task]. This has to be perfect," she adds, "You can't put in the wrong information." Once all of the diabetic patients were in the registry, Rubino and the MA entered patients with asthma, COPD (chronic obstructive pulmonary disease), congestive heart failure, and coronary artery disease.

When the practice first began to move toward PCMH implementation, Dr. Clinton says, "We began documenting procedures for the things we already did. This helped us to fine-tune those processes and to analyze if we were wasting time doing certain things. We wanted to identify which processes accomplished our goals for patient care."

Denise Clinton notes that the written protocols have been helpful, "from the standpoint that people are more aware of certain job responsibilities to follow through on."

INNOVATIONS IN PRACTICE

While MMS may already have been engaging in many of the activities required for PCMH designation, the process of applying for and achieving the designation led to several improvements. With the help of Prism, a firm that works with medical practices to improve efficiency, the practice instituted improved processes for test tracking, chart preparation, and patient visits. Rubino notes,

> It almost felt chaotic and double when we first implemented some of the things Blue Cross required. We were adding the new things on top of trying to do things the old way. POHS suggested we have Prism come in to work with us. So we're learning to work more efficiently.

For test tracking, Rubino says, "There [used to be] a horrible log book system that somebody had developed. You had to flip through a book to try to do follow up. Now we do a pending file system. The new method has helped tremendously with follow up." The old method was not applied very rigorously, either, according to Denise Clinton:

> We didn't have any record for the front desk to follow up with patients. This would have been up to the provider when the patient came in for the following office visit. Now staff regularly follow up with patients to find out if they've completed their tests.

Rubino adds, "We're communicating with our patients regularly. [In the past], you always had something that fell through the cracks, but that doesn't happen with PCMH. Ariphron and the whole system ensure that doesn't happen." Kelley notes, "The test tracking is definitely more efficient for finding labs that have been completed or not. It's easier to know when we need to follow up with patients."

Obtaining lab results and physician office notes tends not to be a problem for MMS. This is not a result of the PCMH implementation process, but a physician who has developed relationships with the providers to whom he makes referrals. As Denise Clinton says, "Dr. Clinton will frequently get on the phone to talk with physicians when he is unclear about the treatment a patient has received. He really only refers to physicians who are willing to communicate with him." Rubino concurs: "We've always sent referrals and we've always followed up on referrals. You don't *not* communicate with him."

The task of chart preparation prior to patient visits has also been modified to improve patient care. Again, Rubino: "Before, staff would just pull the chart for the visit. Now we have an MA prepping the chart by reading the previous visit and identifying what needed doing and following up to include the results of labs or any other work." As an MA, Kelley participates in this process. She says she has "to check to see if [the patient] is diabetic or asthmatic. If they are, I give the chart to LeAnne and she prints out a flow sheet from Ariphron and gives that to Dr. Clinton." The flow sheets ensure that the relevant questions are asked of patients and that any necessary procedures are completed during the visit.

Patients also contribute to the preparation of their charts. When they arrive, patients are asked to complete a form that asks them about any medical visits they have had with other providers since their last visit at MMS. Office staff then obtain lab results and office visit notes from these providers before the patient sees the physician or nurse practitioner. Denise Clinton describes the process this way:

> The front staff supplies the paperwork to the patients. Back staff is then responsible for reading the form and making sure that we have at our fingertips what we need to make decisions for the patients. It makes things much easier.

The process is not foolproof, Clinton acknowledges: "The only problem is patients may not recall that they have had something done."

These improvements to test tracking and chart preparation have greatly improved the quality of the patient visit, according to staff and providers. Prior to these improvements, it was apparently common for the physician and nurse practitioner to leave the exam room to track down information they needed to treat the patients they were with. Denise Clinton notes, "We were coming out of the room a lot to ask for this or that. We're doing that a lot less." Dr. Clinton has found that the new processes have improved patient care:

> The information is more at my fingertips so I can make decisions more quickly. Patients don't have to wait until I get something that I want a result for, and I can review results right away with patients.
>
> I can concentrate on doing a little more education because I know the basic things for quality of care are taken care of. I can do more education; I can fine-tune some of my therapies. It's made me feel more confident that I'm covering the basics and that I'm doing a good job.

Kelley notes that changes have also been made to "the office visit sheets Dr. Clinton writes on when patients are in the exam room." She says the new sheets "lay out more clearly the assessment and the [treatment] plan, which makes it easier for me to find the things he has ordered."

Implementation of PCMH innovations has increased the responsibility for patient care among the non-primary providers in the office. As described above, MAs have greater responsibilities with regard to chart preparation. They also, according to Denise Clinton, are responsible for conducting in-office lab work such as testing HbA1c levels of diabetic patients. Clinton states, "The MAs know that HbA1c's are needed every three months, so they do it before we even get in the room. They are able to do a lot more than they used to. With PCMH, there are certain criteria that dictate what needs to be done." According to Rubino, "MAs were already doing a lot of this work, but now it is written standard protocol."

Dr. Clinton notes that the advent of the PCMH innovations has also led to some adjustments in the role of the office's registered nurse, who coordinates the care team. Clinton states,

> She has the first part of the encounter with the patient. [The new processes] have freed her up to concentrate on the clinical aspects of what we do, versus the management aspects of what we do. She does teaching, and she will handle a lot of coordinating of care issues.

Denise Clinton says the responsibilities of patients have increased under PCMH, too, and she communicates this to them during office visits: "When I explain PCMH to patients, I say, 'The bottom line is you are to keep us in the loop. Keep us informed as far as who you have seen and what they have ordered.'"

All in all, Dr. Clinton believes that the changes have been positive for the entire office: "I think that the staff feel more involved in making sure that the patient gets the best care possible. It's more of a team approach instead of a top down mentality. There seems to be less drama because we're not reacting; we're better prepared."

From Rubino's point of view, most of the change has really taken place at the non-primary provider level. She asserts,

> We didn't have written policies in place before. We didn't have the level of accountability for test tracking and standard protocols that we do now. Now everyone's on the same page. We all know what we're doing.

Challenges

The progress made at MMS has, of course, not come without difficulty. Creating written procedures and documenting the work the practice does to meet PCMH requirements has been burdensome. Denise Clinton states, "What we hadn't had was a binder that described all of this in explicit detail. [Creating] that was the part that I've found time consuming and cumbersome. That's the downside unless you have someone like our office manager who can take it all on." She adds, "Setting things into place took quite a bit of time. This took time away from other responsibilities." And Rubino has been frustrated by her interactions with BCBSM: "The interview with BCBSM was a grilling on our implementation, but it didn't seem to matter how the doctor was caring for the patients. They wanted to talk with me, not with Dr. Clinton."

Kelley says she finds most of the new processes "to be pretty helpful." But she admits the paperwork that patients need to fill out "seemed like a lot of work in the beginning."

Dr. Clinton notes that one of the primary challenges is staying on top of the detail. He says,

> You really need people who understand what they're looking for when they're reviewing a chart and putting down on a document whether something was performed or not, because if they look in the wrong place or they don't understand what they're looking for it can be a problem for our records.

TRANSITION TIME

In some ways transitioning to the new processes took almost no time at all. Denise Clinton attributes this to the way the practice already worked: "I would say [implementation was] almost immediate because we were doing so much already. We just had to tweak how we were doing the documentation." Kelley also asserts that implementation was rather swift: "I feel like it was pretty quick. But," she adds, "everything was implemented at different times."

Focusing on the processes related to diabetic patients, such as the patient registry and flow sheets, "It got to be routine after about four months." Taking a broader perspective, Dr. Clinton says that "Everything has taken about six months. We're fine-tuning things we were already doing."

PROVIDER AND PATIENT RESPONSE

The providers and staff at MMS have been generally pleased with the results of their efforts to achieve PCMH designation. The clerical staff, however, may have initially been more reticent to implement some of the new processes. Rubino notes,

> Clerical staff understand that it's better patient care, but some of the things don't make sense to them. Blue Cross wants us to survey every patient regarding every specialist they see. We have so many older patients that we're sending to a lot of specialists. So this paperwork seems totally ridiculous.

Kelley acknowledges that "in the beginning it was very overwhelming, but now it's become more of an everyday thing. And staff are happy with how organized everything is."

Dr. Clinton also recognizes that it was hard on staff early on:

> I think at first the staff just saw it as more work. But now they can see the positive effect it is having on patient care. They feel more involved in the patient's care. They can see where some of the processes that are in place are starting to save them time.

As for the patients, there was some initial confusion about the PCMH concept among the practice's older population. Denise Clinton recalls, "When it was first initiated, I can't tell you the number of senior citizens who thought we were trying to put them in a nursing home." Rubino also notes that "patients were initially confused about the term 'home.'"

Kelley says that patients initially seemed a bit annoyed with the paperwork they had to complete: "For every visit they have to complete a list of things they have had done since their last visit. This used to bother them, but we explain that we want to be able to review results with them, and they seem to understand." According to Rubino, some patients are even embracing their new responsibilities: "Some patients seem to feel more involved in their care. Some are even remembering to tell specialists that their doctor wants a report back."

The providers and staff do not believe that the PCMH designation in and of itself will give them a competitive advantage in attracting patients without some promotion of the concept from the insurance companies who make the designations. Dr. Clinton asserts, "If PCMH is properly publicized and advertised and supported by BCBSM, I think it could be a competitive advantage." Rubino agrees: "Currently patients don't really know what it is. Unless Blue Cross starts advertising this with their enrollees, it won't have an effect on patient decisions."

Denise Clinton says the competitive advantage for MMS comes from "the way we provide care. Dr. Clinton tells people they may wait because he spends a lot of time with his patients; he also requires an annual physical from his patients. He receives most of his referrals through word of mouth."

FINANCIAL (RESOURCE) IMPLICATIONS

When considering the financial implications associated with PCMH designation, Rubino, Dr. Clinton, and Denise Clinton all mentioned the increased reimbursement from BCBSM as a factor, and at this point the benefit (or lack thereof) is yet to be determined. Rubino notes, "We only get the 10 percent [increased reimbursement] on patients covered by Blue Cross. Unfortunately, not all Medicare patients have secondary Blue Cross coverage. About half do. And I haven't seen any cost efficiencies yet." Dr. Clinton adds,

> The financial incentive for doing PCMH was that if we were certified that our reimbursement for what we were doing would increase. That doesn't happen

> immediately. We started receiving increased reimbursements as of July 1. It remains to be seen whether the increased intensity of staff involvement and, therefore, the increase in our payroll is going to be offset by an increase in reimbursement.

Rubino notes that one unexpected cost was probably the time she has spent on implementation: "I had to put in a lot of overtime to get things put in place." She adds, however, that there has been "no financial investment in training staff. POHS does the training for us. And staff is catching on to things pretty quickly."

THE FUTURE

As Michigan Medicine Specialists looks to the future, the providers and staff are considering implementation of an EMR. Overall, however, they are simply excited to be moving forward with the processes the practice has already put in place, and look forward to making continued improvements in patient care.

Dr. Clinton also notes that the practice will "possibly be doing some group visits. I don't do those yet." Rubino says she has "sent two staff members to self-management training to run group classes for self-management. We have to offer this at least six times a year," she notes.

When it comes to the possibility of an EMR, Rubino is emphatic: "EMR—I want EMR. At the very least, I want to get all of our patients into Ariphron. Even though it's not EMR, it's an easy way to access patient records."

The practice's two primary providers are less certain about the potential for implementing an EMR for the office. Denise Clinton says, "We are looking at EMR, and we have looked at a number of different types. The more we talk to people who have implemented them, though, the more hesitant we are." Dr. Clinton adds, "You're hopeful it will be beneficial, but wary because of previous experiences. It's still unclear as to what type of system the government will reimburse you for. The expense for a small practice can be its undoing if it's not beneficial."

Considering where the practice has come from and where it is going, Kelley says,

> I would say the most exciting thing is how organized everything is becoming and how the relationship with the patient is growing because we have everything ready for them that they need. It's overall better care for the patient.

From Dr. Clinton's perspective, "Our patients are getting better care and it didn't require that much more effort on our part. I know LeAnne worked really hard, but once you get things documented, it is sort of self-sustaining."

Pine Medical Group

PRACTICE PROFILE

Pine Medical Group is a rural primary care practice with two locations. One office is in Fremont, next door to Gerber Memorial Hospital (though the practice is not affiliated with Spectrum Health System, which owns Gerber), and the other is in Newaygo. Pine employs 19 physicians: 12 family practitioners, 2 pediatricians, 2 orthopedic surgeons, and 3 general surgeons. Physicians range in age from 59 years old to 32 years old and work anywhere from full-time to two days per week. Additionally, two nurse practitioners see patients in the office and two physician assistants see patients in an urgent care setting in the Newaygo location. We talked with Dr. Richard Boss, practice administrator Marge Young, and case manager Bobby Miller, registered nurse (RN).

The practice serves 32,000 households and has 44,000 active patients. It has had an electronic medical record (EMR) system in place since 2006. Additionally, the practice is certified as a rural health center and approximately 30 percent of the patient caseload is on Medicaid, uninsured, or receives services on a sliding fee scale.

THE DECISION TO INNOVATE

Once the practice's EMR was in place, it began looking at ways to enhance patient care while also improving net profits and provider quality of life. The decision to move to a patient-centered medical home (PCMH) model was made in 2008, as a result of reimbursement incentives provided through Blue Cross Blue Shield of Michigan (BCBSM) and Priority Health. Because the practice felt that it already offered many of the elements necessary to qualify as a PCMH, a concerted effort began that year. The decision to make the transition was brought about by Pine's medical director, Dr. Richard Boss, who was interested in changing the current model of managing care as a catalyst to attract and retain young physicians in the rural setting. Because the physicians in the practice are relatively young, with an average age of around 40 years old, more flexibility in the doctors' work life seemed an important incentive to offer.

PREPARING FOR IMPLEMENTATION

Because practice leadership was supportive in making the necessary changes for the medical home, the supports to do so were readily available. An electronic registry was installed to track patient information, in addition to the EMR already in place. A case manager and an additional clinical nurse were brought in to the practice. The additional staff were hired to facilitate access for patients as well as to maintain the patient information in the registry. Meetings were held to educate staff on the changes that would come as a result of implementation. Additionally, the practice administration began looking at day-to-day processes with the Lean management system to improve routine tasks.

INNOVATIONS IN PRACTICE

To expand on the current services it provided in order to fulfill the requirements of medical home designation, Pine Medical Group began offering case management to

diabetic patients, collaborating with Gerber Memorial Hospital on education workshops for those patients, and implementing "asthma days" to help asthmatic patients control their symptoms. The practice has also tried to expand the amount of information available to patients via the Internet. Bringing in additional staff also increased access for patients, who are now able to obtain appointments more quickly than before.

Pine Medical Group's first focus in changing care delivery was on high-risk diabetic patients. Those patients received a letter explaining the addition of the case manager and the role that she would play in their care. When those patients come in to see the physician, the case manager generally meets with them first to get a sense of how they are managing their conditions and offer suggestions and information for improvement, as well as topics to be discussed with the doctor. Partnering with the Diabetic Education Program at Gerber has allowed the practice to expand the level of service offered to diabetic patients without having to create and finance all of the programs. Educators from the program are in Pine's office twice a month to provide education to patients there. Conversely, some patients who attend the education programs offered through Gerber are referred to the practice because of the unique case management that it offers.

Pine Medical Group is also currently working to input and track all well-child immunizations in its own electronic registry. While the practice does report well-child immunizations to the state, before the registry was adopted it had no way of easily tracking immunizations for its pediatric patients. Having this ability allows staff to better prepare for well-child exams, making sure that all necessary services are administered during the patient visit and maximizing both the physician's and patient's time.

Challenges

Challenges always occur when implementing any kind of change. While this practice had a supportive administration and many key pieces of the medical home model already in place, it still faced some difficulties. One major obstacle that the practice still deals with daily is the use of the electronic patient registry, Well-centive. This program does not interface with the practice's current EMR, so the time necessary to maintain the database is significant. Training staff to learn to re-do what they have been doing in terms of patient care has been challenging as well. Processes with which they were familiar, such as open schedules and patient notification, have all been slightly modified.

Staff have not been the only members of the medical group to resist the changes; not all of the practicing physicians had a clear understanding of how the changes being implemented would affect the care they give patients, and some were wary of relinquishing responsibilities to the case manager. Finally, the location of the practice has presented challenges in distributing information to patients in more efficient ways. The region's lack of Internet connectivity is an obstacle for this practice because many of its patients do not have access to the Internet to take advantage of Web-based tools.

PROVIDER AND PATIENT RESPONSE

Both patients and providers have responded favorably to the changes at Pine Medical Group. While an initial lack of understanding made some patients hesitant to participate, they have become more engaged in their care since working with the case manager, and

many patients have seen greatly improved health outcomes. Re-hospitalization of patients has been significantly reduced, down from as many as eight per month to zero in some months. Patient satisfaction has increased too: all patient surveys are returned with positive evaluations of the practice.

This model gives physicians the ability to take better care of patients and better track health status through the registry. Patients have taken a more active role in their care since being provided basic education materials. Physicians are able to focus their time on some of the more complex issues that patients experience.

FINANCIAL (RESOURCE) IMPLICATIONS

Because of the need for more resources in this model, funding has been challenging. Grants from Priority Health and incentives available through Blue Cross help maintain the program, but so far implementing this care model has not increased the financial success of the firm. However, it has proven effective in attracting and retaining providers. Convincing young physicians to work in primary care has become more difficult in the past ten years, and trying to convince young graduates to leave urban areas for rural ones makes that task especially daunting. Offering scheduling flexibility as well as the ability to focus on the practice of medicine, as opposed to administration and other mundane tasks, has proved successful in keeping physicians in the practice. And, while this care model certainly offers a competitive advantage over other practices, Pine Medical Group is one of very few options for primary care in the area.

THE FUTURE

In the future, more benefits will be seen in patient health outcomes as they become more educated and as staff become more comfortable with providing care in conjunction with case management and improved education. The model for diabetic patients has been so well received that some providers want to be able to apply it to their asthmatic patients as well. This process is beginning in the Newaygo location. Finally, with the continued success of this model, more young physicians may be attracted to practice primary care in this underserved rural area, knowing that medicine can be progressive in any region.

St. Johns Professional Associates

PRACTICE PROFILE

St. Johns Professional Associates, a primary care practice, is located in a primarily rural community. Patients come from an approximately 20-mile radius in all directions except the south (where residents tend to go to Lansing for medical care). The practice has approximately 8,000 active patients with about 15,000 visits per year. St. Johns Professional Associates is a hospital-owned practice whose physicians earn a salary.

In March 2009, the practice started participating in activities necessary to achieve patient-centered medical home (PCMH) designation through the Blue Cross Blue Shield of Michigan (BCBSM) Physician Group Incentive Program (PGIP). The practice currently has six physicians, only two of whom are engaged in the PCMH. The remaining four are newer to the practice and will receive training and be brought on board with the PCMH activities by early 2011, when the practice will implement an EMR.

In addition to the physicians, the practice has one registered nurse, two licensed practical nurses, and four medical assistants on staff.

PSC spoke with four people during its visit to St. Johns Professional Associates to gain an understanding of the implementation of PCMH in the practice: Bob Beresford, practice administrator; Greg Holzhei, DO; Karen Keilen, licensed practical nurse (LPN); and medical assistant Kelli Ferrier.

THE DECISION TO INNOVATE

As a member of Sparrow Medical Group, St. Johns Professional Associates was offered assistance in achieving PCMH designation through BCBSM's PGIP. Practice administrator Bob Beresford states that he, the two physicians in the practice at the time, and Clinton Memorial Hospital agreed to take advantage of the opportunity in March 2009 for three reasons: "We were progressive enough to see this was the way of the future; we felt it was the right thing to do to focus on patients and provide evidence-based medicine; and there was a financial incentive." He added that the physicians "saw [patient-centered medical home activities] as something we were already doing, although we hadn't been reporting on it or analyzing it." Dr. Holzhei adds that he and the other physician agreed PCMH would be a good way "for the patients to be more involved in their own care."

While the rest of the caregivers and staff in the office were not in on the initial decision to attempt to achieve PCMH designation, LPN Karen Keilen says that "Bob brought the idea to the rest of us and explained the need for it and the desire to improve patient care and improve patient understanding of their own health care."

INNOVATIONS IN PRACTICE

As practice administrator, Beresford coordinated St. Johns Professional Associates' efforts to obtain PCMH status. He describes it this way:

> Initially, I took the lead to see which pieces we were most prepared to put in place. I laid out a plan and had staff meetings to do education and training on expectations and roles, and to identify the resources we needed. Then we got the tools in place to make it happen.

The primary "tool" put in place was a patient registry called Ariphron. Since the practice has yet to implement an EMR, it seemed that a registry would allow it to track care and outcomes for patients with chronic diseases. Efforts to date have focused primarily on patients with diabetes.

The initial push to populate the registry was labor-intensive. Medical assistant Kelli Ferrier spent many hours adding current patients to the registry based on their paper medical records. While this work has decreased, newly diagnosed patients and new patients continue to be entered into the registry.

Along with implementing the patient registry, St. Johns Professional Associates made changes to the way patient information is shared among providers in the practice and to the way care is delivered.

Beresford says that "flow of information has changed significantly." He describes a shift from simply handing patient lab results up the "chain of command" to a more active response to labs that may or may not involve physicians. Prior to having a registry, clerical staff would receive the lab reports and give them to nurses, who would then give them to doctors. With Ariphron in place, clerical staff enter lab results into the registry and give that information to the nurses. Nurses then have the responsibility for deciding the next steps. While they may send the results to one of the practice's physicians, they also have the authority to handle follow-up themselves if appropriate. Beresford says this is part of an effort to "move care functions to the most appropriate level of provider."

Keilen adds, "We're getting much better at communicating within the office about patients. In terms of the whole team being aware of what has to happen for a person. The roles are more coordinated."

Other changes to the way care is delivered in the practice reflect this transition as well. Whereas nurses used to take patients back to exam rooms, medical assistants (MAs) do this now. MAs not only obtain basic patient information, but also have increased responsibility for handling patient care. "Patient flow sheets," which are generated from information in the patient registry, are printed out and attached to patient charts the day before an office visit. The sheets list any alerts regarding the patient's health status and necessary tests. Beresford says, "When medical assistants put patients in their room, they can see what needs to be done and get some things under way before the doctor walks in the door."

Physicians maintain responsibility for medical decision making, but nurses often come in after the physician leaves to provide patient education and write up any lab slips. In the exam room, the practice's nurses and physicians are able to use registry data to work with patients to develop goals and to focus their patient education efforts. As Keilen puts it, "At every visit, we can talk to the patients about where they are in relation to their goals and see what we can do to improve it."

St. Johns Medical Associates has also become more proactive in the way the practice interacts with patients. A list of all patients with diabetes can be generated from the registry, which enables clerical staff to see which patients are in need of an office visit or need to complete lab work. These staff are then responsible for calling patients to schedule their appointments and sending lab slips to the patients so the work can be done before their next visit.

As St. Johns Professional Associates transitioned into a PCMH, patients were sent pamphlets through the mail to make them aware of changes they could expect in the care they received and were greeted with additional information when they visited the office. Also, to ensure that patients come back for regular visits, Keilen says, "We no longer prescribe medications for a whole year. Now, patients have to come back in a few months for a checkup."

As a result of implementing the registry and making changes to workflow and provider roles, Beresford believes "we're providing better care. We are more efficient in terms of what we do during an actual physician-patient encounter. We have a plan prior to the patient coming in the office, so we're more proactive."

Beresford believes the way the office practices under the PCMH has led to more individualized care: "It has helped us focus on each patient to identify what they need and make sure they stay healthy." He adds, "We used to do this to an extent, but now it's more logical and organized."

TRANSITION TIME

While many of the changes at St. Johns Professional Associates took place in the immediate term, it took about six months for the registry and other changes to be fully integrated into the way the office works. It was at that point that Beresford and the providers in the practice had trend data—both for individual patients and the practice as a whole. Beresford says that at the six-month mark, "We got beyond figuring out just how to do it, and we were able to start looking at what our results were. When we could tie it back to our purpose, that's when we felt like we knew what we were doing."

Dr. Holzhei says:

> I think it was probably about six months. At the initial evaluation, the patient would come in and we would just have one [Hba1c] reading. After that we could have a trend. It also took time to move toward having the patient do things ahead of visit so we could talk at the appointment about the results.

Keilen adds that during that time, patients moved from "just sort of being taken care of [to being] interested in what their goals are."

PROVIDER AND PATIENT RESPONSE

For many of the office staff and non-physician caregivers, moving toward PCMH designation has meant a great deal of additional work. Beresford notes, however, that "no one complains because they all recognize the value."

Pride in the roles that everyone is able to play in patient care is obvious. Keilen notes that she is "more involved with the patient and I feel more involved with their care. I'm familiar with what's happening with the patients. I review their charts so I know what has been done and what needs to be done. I see all the labs that come back and x-rays and referrals." Ferrier believes that providers "catch more things about the patients because we are more thorough in our review of patients."

Physicians appreciate the work being done by the rest of the staff and are pleased with the data that can be pulled from the registry. Dr. Holzhei states, "Having labs in the charts allows me to show the patient how they're doing so I can more effectively discuss treatment with the patient."

While the practice has not conducted any patient satisfaction or other surveys since becoming a PCMH, the consensus is that the patients are pleased with the changes. Dr. Holzhei notes that "some of the patients maybe weren't as aware of their conditions. Now they're taking more initiative with their own health. This has been a positive thing for them." He adds, "I think it's helped patients with their diabetes. They've begun to understand the disease process, and I've been able to see the things that I need to improve on with my patients."

Keilen believes that "patients feel more free to call to find out what they can do if they have questions about their health." Ferrier adds that "[Patients] were always given a lab slip, but now we follow up so they feel like we're doing this for their benefit."

While all those interviewed during the site visit agree that the practice innovations implemented give patients increased value, there is lack of consensus on whether they will serve as a competitive advantage in attracting patients to the practice.

Dr. Holzhei is uncertain whether becoming a PCMH will attract more patients because people are still so unaware of the concept: "I don't think the average person will look at that to choose their doctor. Most come to our practice through a referral from a friend or family member." Beresford, however, sees it as a clear advantage—not the PCMH designation, necessarily, but the improved quality of care: "They'll see we're logical and organized and also caring, and [we] can show you that you're getting better. We're definitely at a competitive advantage."

FINANCIAL (RESOURCE) IMPLICATIONS

One of St. Johns Professional Associates' primary incentives for taking on the work of achieving certification as a patient-centered medical home was the potential for increased reimbursement from BCBSM. And both Beresford and Holzhei believe it *has* led to increased reimbursements and an improved bottom-line for the practice. Because they are employed at a hospital-owned practice, however, neither can say this with certainty.

Beresford can say, though, that while the work has "created a need for redirection of resources, it hasn't caused a need for increased resources." He says, "I have different people doing different things, and some people are doing more than they used to. But I haven't had to add more staff."

THE FUTURE

Beresford states that as the practice becomes more comfortable with the innovations it has added so far, he hopes to "get more into self-care and counseling patients on how to take care of themselves, and helping them to be more independent. I really want patients to be more personally responsible." He also wants to work more closely with the specialists their patients see. He notes, "We might get reports from them, but there isn't any real dialogue." He believes this should change as PCMH becomes more widely adopted:

> Through the evolution of patient-centered medical homes where the primary care provider becomes the primary driver of care, primary care providers will be forced to have a better relationship with the other players. We're required to know more about other providers and the care our patients receive from them.

Beresford, Holzhei, and other staff at St. Johns Professional Associates are also looking forward to having an electronic medical record (EMR) in place. The EMR they plan to adopt is being implemented system-wide by Sparrow Health System. Beresford says,

> When we move to an integrated EMR, everything will change. Right now I get labs that we still have to enter into the registry by hand. When Sparrow has an integrated EMR, they'll be using EPIC. By the end of 2012, everything should be in place across the health system.

For Holzhei as well, "the big thing is getting an EMR." Having that, he says, "will allow us to access all of the information better—labs, ophthalmology reports—and e-prescribing will be easier, too."