As primary care physicians, we spend the majority of our time caring for patients with chronic diseases, but data suggest we achieve the standard of care for chronic diseases and preventive care only 50 percent to 60 percent of the time.1

We should not be surprised by these results. It takes time to measure and monitor our patients’ progress, and time is something we have far too little of. Years of declining payment have necessitated that we see more patients in less time. Having adequate time to listen and examine the patient is now a luxury. Proper documentation and coding, past record review, and testing follow-up consume most of our time between visits.

Four years ago our family medicine residency program decided to look closely at our chronic disease care performance. We provide 32,000 patient visits per year at our urban Milwaukee practice, where most patients are underserved and many have chronic medical conditions. When we developed functional patient registries and were able to produce the data we needed for our assessment, we realized that our performance was no better than average. We knew we could do better, but not without an organized, team-based approach. The outdated
Data showed that the authors’ group was no better than average at chronic disease care, so they decided to take a more organized, team approach.

They began by seeking support from their organization’s leaders and from the entire staff.

A multidisciplinary team championed the effort through education and motivation.

model where all the responsibility for patient care lies with the physician was not working. We decided to make improving chronic disease management our No. 1 goal. After much research we began to implement the components of the chronic care model, an approach that combines delivery system redesign, enhanced use of technology for real-time decision making and patient self-management support to produce more productive interactions and thus better outcomes.\(^2\)

This article describes our experience, focusing primarily on how we developed and used teams to improve chronic disease care. Much of what we accomplished can and has been replicated in other practice environments. We hope you will learn from and be encouraged by our experience.

**Getting buy-in**

Our work began by seeking commitment from our organization’s leaders to support the effort. Our organization, like most others, is skeptical of any change that may increase expenses or reduce revenue. Since the chronic care model requires new duties of all office personnel, including providers, short-term revenue loss was possible. A key selling point was that implementing the processes required to improve chronic disease care would also help us become recognized as a patient-centered medical home (PCMH) by the National Committee for Quality Assurance (NCQA), which we have since accomplished, and enable us to negotiate for improved reimbursement. Our organization’s leaders recognized that improving chronic disease care using a team-based approach would position us well for the future. Later we realized an increase in patient visits as our care teams identified patients who were behind in recommended monitoring and contacted them for follow-up visits. This gain offset any initial loss of revenue and should encourage practices thinking about changing the way they deliver chronic care.

Next we formed the first of many important teams – a physician, a nurse and an administrative leader to champion our efforts. Their role was to educate themselves on the chronic care model and serve as educators and motivators of the rest of the staff. Without leadership, especially from nursing and administration staff, the process would not have been successful.

Our champions played a vital role in changing the culture of our practice to one focused on patient-centered care, but this shift required the effort of our entire staff. The team organized meetings where the fundamentals of chronic disease management and team-based care were explained to all of us. This education was crucial to understanding the language of the chronic care model, to clearly defining the project goals and to creating an environment in which our efforts could succeed. We held meetings on motivational interviewing, stages of change theory, goal setting, action plan development and patient self-management support. If your practice does not have the resources to provide this type of education, there are good, free educational videos available at a number of websites, including www.chcf.org (the

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California Health Care Foundation) and www.improvingchroniccare.org.

Another key to engaging our staff was to start slowly. We began with one small, doable project that required using the registry feature embedded in our electronic health record system (EHR) to track outcomes that could be measured in a short, definable time period (for more information on registries, see “Registries Made Simple,” on page 11). We knew it would be important to avoid overloading our teams, particularly at the outset, so we focused our resources on high-risk patients, beginning with diabetes patients whose A1Cs were over 9 percent. We assembled our first diabetes care team and piloted our new process before rolling out the program to include others. This helped to streamline the project, build momentum and prevent the kinds of errors in data or process that breed opposition to change, particularly among physicians.

Team formation

We gave a lot of consideration to the composition and function of our care teams and concluded that teams should include one person in each of the following roles:

Medical assistant (MA). Using guidelines and standing orders developed by our physicians, the MA arranges for all necessary labs, gives immunizations, schedules/pre-plans appointments and makes routine referrals (e.g., screening eye exams).

Registered nurse (RN). The RN follows up with patients in areas such as blood-sugar monitoring, medication management, behavioral goal setting, action plan follow-up and coordination of care. The physician provides direction to the RN through our EHR, and the RN uses the EHR to track patient progress and keep physicians up-to-date. Smaller practices might not have the luxury of using RNs for interim care and more advanced case management. However, MAs can get more training in patient self-management education and gather necessary information to assist with physician-directed follow-up.

Physician. The physician works with the patient to set the agenda and prioritize patient issues. He or she acts as a problem solver with clinical or complex issues that need physician input and instructs team members on priorities and goals.

One initial challenge we encountered was reluctance to accept new roles, responsibilities and processes. We adopted the following guiding principles, which helped us come to terms with new ways of working together:

- Everyone should be working at their highest level of training.
- Each team member must have clear roles and well-defined expectations.
- Team members should be given the time and tools to achieve their goals.
- All team members’ voices should be heard and their opinions respected.
- The team’s focus must be on continuous, proactive and patient-centered care.

Here’s how our diabetes care teams work: All team members receive a printed registry that lists the patients assigned to the team. The registry includes measures for the clinical outcomes being tracked, e.g., A1C levels. All measures that are not current, such as overdue labs or missing vaccinations, are highlighted. The team’s MA contacts patients to schedule appointments and make arrangements for

<table>
<thead>
<tr>
<th>CLINICAL RESULTS</th>
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<tbody>
<tr>
<td><strong>Results of our diabetes care initiatives</strong></td>
</tr>
<tr>
<td>A1C &lt; 8</td>
</tr>
<tr>
<td>A1C checked in past 12 months</td>
</tr>
<tr>
<td>Lipids checked in past 12 months</td>
</tr>
<tr>
<td>Up-to-date pneumonia vaccination</td>
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| **Results of our preventive care initiatives** | **At baseline** | **Most recent measurement** |
| Pneumonia vaccination, patients > 65 | 45 | 72 |
| Mammogram, women > 50 | 56 | 74 |
| Colon cancer screening | 43 | 60 |
The group formed care teams – a medical assistant (MA), a registered nurse (RN) and a physician – that work together closely and systematically.

The RN provides physician-directed follow-up with patients and helps with monitoring, education, goal-setting and coordination of care.

The RN follows up with these patients, updates their care plans and communicates with the physician as needed. Additional patients rotate onto this management list as patients who no longer need close support are removed. The number of patients chosen depends on the resources and time available.

After achieving success with our diabetes indicators and recognizing a better understanding of the chronic care model among our staff, we began additional projects to improve chronic care management. We also began devoting more attention to ensuring that our patients received needed preventive services and screenings.

In 2009, wishing to broaden our focus from data collection and process-oriented outcomes to include more patient-centered outcomes, we decided to begin developing individualized care management plans more systematically. To achieve this goal we made two controversial decisions. The first was to reorganize our care teams around a nurse health educator. We asked a .6 FTE RN to work exclusively in this role. This gave us a motivated and dedicated RN to work on care management plans. Other RNs agreed to take on this nurse’s previous responsibilities in exchange for the work she took on with each of the care teams. The second decision was for these new teams to meet for 30 minutes every two months during the physician’s patient care time to develop care management plans for five to six high-risk patients per meeting. The fear was this would cut into productivity, but once again we found that it did not, as engaging these patients resulted in more visits.

Team meetings

As our chronic care management initiatives have unfolded, we’ve found that making time to meet and discuss our progress is difficult, but critical to our success. Without regular meetings, of care teams and of our entire staff, communication suffers. We’ve discovered it works best to have dedicated, scheduled time for meetings, rather than asking personnel to squeeze meetings in between their regular duties. This approach also conveys to our group that improving chronic disease management is a high priority that deserves our focused attention.

At clinical staff meetings, we distribute the latest registry data, assess progress and then break into teams to address barriers and share improvement ideas. During these meetings, outcomes data are reported by physician and by care team, compared with national benchmarks and shared with the group. This spurs healthy competition among physicians and staff. Recognition, often with small prizes such as gift cards or lunches for teams that achieved their goals or made the most progress, helps motivate us. As a result of these meetings, team members take more ownership and initiative and demonstrate increased camaraderie and mutual respect, resulting in better communication with patients. We also hold brief care team meetings as needed to foster rapid-cycle improvements following the Plan-Do-Study-Act (PDSA) model – planning a change, trying it, observing the results, and acting on what we learned.

Helpful tools

Our care teams use several tools to function more independently and efficiently:

Standing orders. To enable greater autonomy and efficiency, we use standing orders for everything that does not require direct physician input, for example, lab ordering, immunizations, diabetic foot exams, and certain referrals (mammography, colon cancer screening, diabetic eye exams). We also use standing orders to determine next appointment intervals.

Registries. Registries are essential. If you do not know who your chronically ill patients are or what they need, you cannot proactively manage them. The highest risk patients are the ones you rarely see. At our office, every MA has a binder that includes multiple printed registry lists. Outliers are highlighted so as to be clearly identifiable. When there is down time (yes, occasionally there is), our MAs work on contacting patients to schedule the needed tests and appointments.

Chronic disease and preventive care templates. Having one place for physicians and team members to find up-to-date infor-
mation at a glance is essential. We use an electronic preventive care template, maintained by nursing and administrative staff, that lists services such as immunizations, procedures and lab tests along with recommended screening intervals. There is a space to document date ordered and date completed and to note if the patient refuses the recommended service.

We also have chronic disease management templates, some of which incorporate multiple chronic diseases on a single template. For example, one template covers diabetes, coronary artery disease and hypertension since these conditions often coexist and the recommendations overlap. These templates also cover goal setting and action plans and incorporate evidence-based guidelines and patient education materials. They are a valuable resource when developing care management plans.

Community resources. To facilitate patient-centered referrals, our team members are educated about community resources such as disease management group meetings, exercise facilities, mental health services, free health care services and pharmaceutical discount programs.

Results

We’ve overcome many of the concerns that might have prevented our group (and might discourage others) from attempting a team-based approach to chronic disease care. These were our findings:

Will the development of chronic care teams require additional staffing? We hired no additional staff in this process but shifted roles and responsibilities and educated staff to achieve the necessary skill sets.

Will staff be overwhelmed with the workload and change in job description? Our staff experienced greater work satisfaction as a result of feeling like a vital part of the team in improving patient care. However, it was necessary to redistribute workloads among staff to make this happen.

Will physicians object to a “shared” approach to caring for their patients? Most physicians appreciated the additional resources available to assure adherence to guidelines and the follow-up of management plans that they and the patients have agreed to.

Will productivity suffer with added meetings and duties? Proactively engaging patients actually resulted in increased visits as patients become more involved in taking responsibility for their health. Visits are more efficient as necessary data is available at the time of the encounter due to the use of standing orders and pre-visit planning.

Will these changes actually result in improved patient care? We made significant improvements in frequency of testing, diabetes and lipid control, immunization rates, and preventive screenings. (See the tables on page 29.)

Will patients like this approach? Not all patients responded to this team approach. However, most were very impressed with the attention they received and became more active participants in improving their health.

High-performing clinical teams organized to provide proactive care are a tremendous resource in managing chronic diseases, and the skills associated with team-based care are essential to becoming a PCMH (to learn more about the PCMH model, see http://www.aafp.org/pcmh). By clearly defining team roles, honing care delivery processes, using the right tools, and actively engaging your patients, you can improve outcomes for your patients and produce benefits for your entire practice.

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