

Experiences With the Academic Chronic Care Collaborative

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We recently participated in the Academic Chronic Care Collaborative (ACCC) sponsored by the Institute for Improving Clinical Care (IICC), a division of the Association of American Medical Colleges (AAMC). This collaborative, led by Dr. David Stevens (Director, IICC, Washington, D.C.) and Dr. Edward Wagner (Director of the McColl Institute for Healthcare Innovation, Seattle, Wash.), involved 22 academic medical centers instituting the Chronic Care Model. This model, developed by Dr. Wagner and his colleagues, identifies the essential components for chronic illness care: the community, the health system, self-management support, delivery system design, decision support, and clinical information systems.¹ Each of the teams involved chose a chronic disease, identified a target population, and worked independently to implement the principles of the Chronic Care Model. The underlying goal was to improve chronic illness care.

Our team at Vanderbilt University chose diabetes as our target condition and developed a registry of patients for tracking. The collaborative did not provide funding to the participating institutions. Interestingly, this did not seem to limit participation, but rather helped to solidify commitment because local resources were required.

With the help of IICC, we selected measures to be tracked within our population and began establishing our baseline rates of adherence. Hemoglobin A_{1c}, LDL cholesterol, blood pressure, and comprehensive foot exams were

among the eight measures we selected. All of the teams reported their measures monthly (and publicly!) and participated in conference calls and face-to-face meetings to discuss strategies, successes, and failures. We found the constant accountability to an outside group was a significant motivator for our group.

The Chronic Care Model served as a useful framework for understanding systems-based care. We found that the main value of the collaborative was combining this model with improvement methods—principles stressed frequently by the collaborative leaders. In our experience, no single method or idea will solve the shortcomings of chronic illness care at the local level unless it is part of a strategy of iterative improvement. The practice of medicine is rooted in the scientific method used in clinical trials and other formal methods of evaluating evidence,

but few practice groups use experimental methods to improve their own patient care systems. One way to accomplish this is by using methods such as rapid-cycle changes or PDSA (Plan, Do, Study, and Act) cycles.² This process, also called the Shewhart or Deming cycle (developed by statistician Walter Shewhart in the 1930s and later modified by quality expert W. Edwards Deming), involves implementing a small-scale test of change with a measurable outcome, allowing evaluation of the intervention's success or failure before large-scale resources are spent.

Our team, consisting of physicians, clinic administration, residents, nurses, patient care technicians, data analysts, and systems developers met regularly to examine our measures and current processes and to look for ways to improve our results and outcomes.

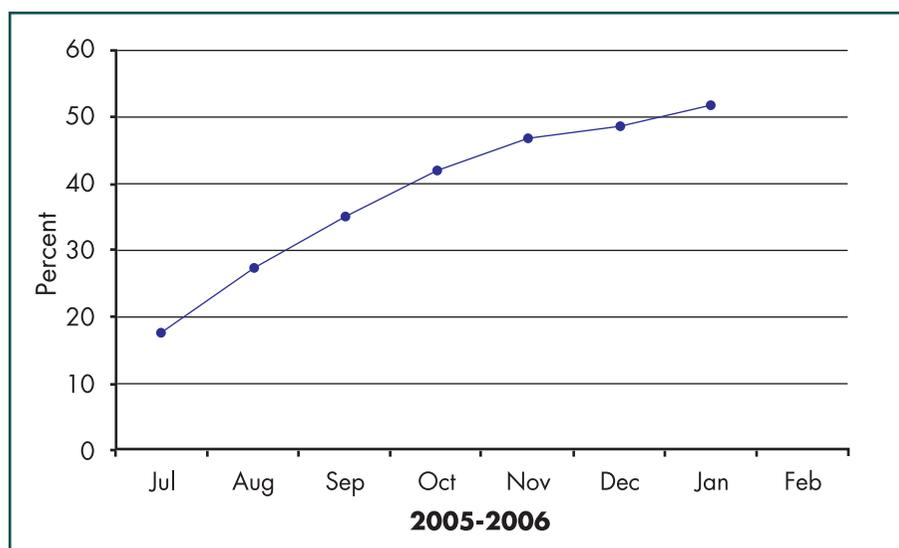


Figure 1. Percentage of patients with diabetes with comprehensive foot exam in previous 12 months

Standing at a white board and mapping out a process is often cathartic in the hurried environment of modern medical care. Rarely do any of us truly know what our colleagues do to accomplish a task; we usually see only the outcome.

Our team used these meetings to make small changes and measure their results. Some succeeded, and others failed, but we learned from every change. One area of success was improvement in comprehensive foot exams in patients with diabetes. The first PDSA cycle created reminder posters on the exam doors. This was a complete failure, resulting in almost no improvement. Building on this experience, however, the team developed a computerized reminder directed toward clinic staff (bypassing the physicians). This resulted in significant improvement over just a few months (improvement trend shown in Figure 1), and the practice quickly spread beyond the initial testing area.

The formal collaborative has now ended, but our charge to improve care for our patients with diabetes and other chronic illnesses will not end. We learned two main lessons from this process. First, we must not be afraid to *confront the data*. All of us in health care must be aware of our results and outcomes (not just financial results) and seek changes to the system when needed. Our view is that the availability of this data should be ubiquitous and examined at both the patient and population level on a *regular* basis.

Availability of data is always an issue, but at least initially, teams should not seek the perfect data source, mostly because there isn't one; every source has its flaws. It is important only to know the limitations of the data available and to

compensate for them when needed. At the start, use whatever data are available (e.g. claims data from payors), and improve data collection methods and source quality as time and resources allow. The frequency of updates is often more important than the source; an end-of-year summary is too infrequent to foster change.

Improving data collection can be part of the overall improvement initiative. Indeed, with the advancing wave of pay-for-performance plans in health care, we need to begin measuring before it is required by outside forces. Just getting started is half the battle. An early success, celebrated openly by the team or clinic, can go a long way in changing the culture and creating positive tension for further change through natural competitiveness.

Second, *improvement strategies must be part of your daily work*. If improvement is an afterthought, it will always receive short shrift. Teams for directing improvement do not have to include everyone but should have a representative from all of the key stakeholders. Clinic staff (other than physicians and nurses) are an important group too often left out of such a process. Secretaries and medical assistants often perform patient hand-offs and intake screenings that can be useful areas in which to focus improvement. We have found it important to remember that the goal is to improve the system, not any one person or role.

We started with lunch meetings, providing food to get everyone together at the same time, but met in an ad hoc way whenever necessary. Several teams can be formed to allow everyone to participate in some fashion. Each team member should share not only in the process itself, but in the benefits of success. We

believe strongly that this process is not a glorified suggestion box, where people come up with "good ideas," but rather a formalized way of examining data, analyzing a process, making changes, and using the results to make further changes.

Participation in the collaborative has been an excellent starting point for our medical center, but much work remains, in both diabetes care and the care of other chronic diseases. We have struggled with incorporating the process into our daily work, making headway in fits and starts rather than in a continuous way. That will likely be the subject of our next improvement cycle.

REFERENCES

¹Wagner EH, Austin BT, Davis C, Hindmarsh M, Schaefer J, Bonomi A: Improving chronic illness care: translating evidence into action. *Health Aff (Millwood)* 20:64-78, 2001

²Shewhart WA: *Statistical Method from the Viewpoint of Quality Control*. New York, Dover, 1939

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