Photo courtesy of The Mount Sinai Hospital, New York City

*"This project demonstrates
that the use of
Six Sigma tools
can yield improvements
that go beyond their
well-known fiscal and
operational applications."*
—DuPree et al.
(p. 349)

**Joint Commission
Resources**

Applying Six Sigma to Pain Management

Features

Performance Improvement

Editorial

Performance Measures

Departments

Forum

Tool Tutorial

Performance Improvement

Integrating Practices' Change Processes into Improving Quality of Depression Care

Deborah S. Main, Ph.D.; Deborah Graham, M.S.P.H.; Paul A. Nutting, M.D., M.S.P.H.; Donald E. Nease, M.D.; W. Perry Dickinson, M.D.; Kaia Gallagher, Ph.D.

Redesigning primary care in line with new models of care[1,2] is a significant challenge for busy offices that face competing demands, financial constraints, and limited organizational capacity for change.[3] Primary care practices would benefit from improved understanding of how to make and sustain fundamental changes in their delivery systems. Systematic research on primary care practice change has increased in recent years, with identification of more effective methods and processes to guide practice change efforts.[4–7] The challenge, however, lies in helping practices learn how to leverage these change processes more efficiently and effectively to improve their clinical care.

A recent article by Solberg[8] illustrates this paradox: Real transformation to improve the quality of primary care requires improvement in both a clinical care area and use of effective processes for change ("change process capability"—for example, skills, resources, leadership for managing change). Focusing on one without the other will lead to failure and frustration. To date, however, primary care interventions have rarely targeted both; many have targeted primarily improvements in a clinical care area, while others chiefly targeted increased use of more effective processes for change, with few interventions equally emphasizing both.[8] We need additional research on the impact of multicomponent interventions that develop primary care practice capacity to use more effective change processes for improving clinical care.

This article describes the results of an exploratory, qualitative analysis of primary care practice use of effective change processes in the context of improving the quality of depression care. This qualitative study is part of a larger research project designed to test the feasibility and effectiveness of a modified improvement collaborative approach to improving depression care that equally emphasized important principles of change management for primary care practices. This is a joint project of the American Academy of Family Physicians National Research Network (AAFP NRN), the American College of Physicians (ACP), and the American Psychiatric Association (APA). The impact of this project on measurable, sustained

Article-at-a-Glance

Background: Primary care practices would benefit from improved understanding of how to make and sustain fundamental changes in their delivery systems. An improvement collaborative project was conducted in 2005 to not only improve the quality of depression care but help participating practices adopt and adapt more effective change processes to implement improved depression care. In a follow-up to an article on the project's impact in terms of measurable, sustained improvements in depression care, an exploratory qualitative study was conducted to examine primary care practices' adoption of effective change processes.

Methods: Qualitative data were collected from 16 primary care practices participating in the National Depression Management Leadership Initiative's Improving Depression Care project. A multistep process of qualitative analysis was used to identify exemplar practices, and a constant comparative method was applied to identify salient features that influenced adoption of change processes associated with improvements in depression care during the course of the 18-month project.

Results: The participating practices showed considerable variability in terms of the improvements they made in depression care and corresponding adoption of change processes to help make these and other improvements. Nearly all practices that showed the greatest improvements in depression care also adopted more effective processes for change, with several features associated with exemplar practices able to improve depression care and change processes.

Discussion: These findings support the thesis that successful quality improvement efforts should address both clinical content and change processes. They also add to the literature on the impact of improvement collaborative projects, which to date have demonstrated mixed effects in a variety of chronic diseases, including depression.

improvements in depression care has been previously described.[9]

Methods

SUBJECTS AND SITES

We recruited 18 primary care practices—9 from the AAFP NRN and 9 from the ACP Practice-based Research Network (ACPNet). Whenever possible, we recruited practices from both networks that varied in size, organizational structure and affiliations, and populations served. We also explicitly sought to identify practices that reported having the autonomy to implement change without seeking approval from higher administration. We used a multistep recruitment process: First we e-mailed network practices a general project description and invitation to participate; interested practices then received follow-up phone calls and e-mails to verify practice interest and clarify project commitments and incentives.[9]

The final sample of 18 practices varied from small rural solo physicians to urban practices with more than 40 physicians.

THE INTERVENTION

The intervention was designed around a series of three weekend learning sessions in Chicago and subsequent action phases, during which participating practices were encouraged to implement practice change processes and depression care improvements. The learning sessions were broadly structured to teach practices specific processes for change based on formation of a practice-level improvement team (IT) and principles of the Reflection Action Process (RAP) model of practice change[7] (Appendix 1, available in online article). Briefly, RAP incorporates a rapid-cycle process of change, made possible through a practice's commitment to protecting time and space for reflection, learning, and managing change—and provision of supportive leadership that is involved in the change process. The central tool for implementing RAP is the IT. Depression improvement strategies involved the systematic use of the nine-item Patient Health Questionnaire (PHQ-9)[10] and principles from the RESPECT trial, and the application of the Chronic Care Model to depression care.[11–14] Practices learned a staged process of depression care improvement, organized around the use of the PHQ-9, and were encouraged to use RAP cycles to test the use of the PHQ-9 for screening, diagnosis, and monitoring depression severity. The second stage encouraged practices to begin proactively tracking patients to monitor severity and assure adherence with visits and medication. Finally, practices were presented with materials for assisting their patients in setting and pursuing self-management goals.

At the beginning of the project, each practice identified two practice champions (PCs) who attended the learning sessions and were charged with implementing the project (physician PCs were paid $1,500 for their participation [nonphysician PCs, $750], with reimbursement for travel and meal costs). In the majority of cases, each PC attended each learning session, and practices occasionally elected to bring an additional staff member at their own expense. The project's time line was structured such that roughly 75% of the first learning session focused on the change process (RAP model) and 25% on depression care and the use of the PHQ-9. The second learning session was roughly evenly split between the two, and the final learning session was divided approximately 25% RAP principles and 75% depression care.

A central part of the training provided to the PCs during the three learning sessions focused on the formation of ITs and the ITs' use of RAP[7] to facilitate the implementation within the practice of depression monitoring and other elements of the chronic care model for improving the care of patients with depression. The ITs and the model for RAP have been developed through a series of funded, collaborative primary care projects and represent the latest thinking about effective change processes for primary care practices.[6,7] However, these previous projects have typically used facilitators to provide on-site assistance in the implementation of the teams and the process; this was our first attempt to train PCs to act as their own change facilitators and to implement these processes in their respective practices.

Although a primary goal of this project was to improve the quality of depression care, the intervention was specifically designed to help participating practices adopt and adapt more effective change processes as a method for implementing improved depression care. Our mixed methods of data collection allowed us to explore the relationship and time sequence of improving change processes and improving depression care.

QUALITATIVE DATA COLLECTION

The two PCs from the 18 participating practices were divided into three small groups at the learning sessions for discussions. The investigators, consultants, and dedicated observers took detailed field notes of all learning session discussions. In addition, the investigators conducted taped semistructured telephone interviews with all PCs (physician and nonphysician) before the first learning session, between learning sessions, and six months following the third learning session. With few exceptions (due to turnover or practice dropout after the first learning session), everyone participated in interviews. The

interview included broad, open-ended questions to learn from both PCs about any changes in depression care and activities related to ITs and RAP cycles during each action phase. The interview schedule (including its introductory language), as well as facilitation guides for small-group discussions, were designed to minimize socially desirable answers as much as possible. We emphasized to PCs that we wanted to learn as much as possible about what happened, what worked, and what didn't. Extensive notes of these small-group discussions, interview transcripts, and e-mail communications made up the rich qualitative data for this analysis. (We also collected quantitative survey data on reported changes in depression care,[9] but we did not collect any patient-level data on depression).

The timing of three learning sessions and qualitative interviews was as follows:

■ Baseline Interview: March 2005

■ Learning Session 1: April 8–10, 2005; Action Phase 1 Interview, May 2005

■ Learning Session 2: June 24–26, 2005; Action Phase 2 Interview, August-September 2005

■ Learning Session 3: November 4–6, 2005; Action Phase 3 Interview, April 2006.

Analytic Approach

We analyzed qualitative data from the 16 practices that completed the project (2 sites that dropped out after the first learning session were excluded from analyses) in three steps. First, two authors [D.S.M., D.G.] used a template style of analysis[15] to identify practices with higher and lower use of change processes (defined as establishing an IT, having regular meetings, and conducting RAP cycles) in relationship to practice success in implementing key improvements in depression care (defined as use of the PHQ-9 for screening, diagnosis, or treatment monitoring; case management activities; and self-management support). This resulted in classifying each practice as high, medium, or low in terms of improvement in depression care and its use of change processes for making these and other improvements during the study period. A third author [P.A.N.] independently reviewed the classification and did not identify any misclassifications. The results of this classification were also consistent with rankings made by another author [D.E.N.] as part of a separate analysis of these data.[9]

Second, we used an editing approach[16] to conduct a more in-depth qualitative analysis of exemplar practices that demonstrated high levels of improved depression care and corresponding high adoption of change processes over the course of the study. Through analysis of exemplars, we identi-

Table 1. Co-Evolution of Improving Depression Care and Adopting the Change Model*

		Improvements in Depression Care[†]			
		High	Medium	Low	Total
Adoption of Change Processes[†]	High	3 (a)	0	1 (b)	4
	Medium	1 (c)	2	0	3
	Low	1 (d)	6	2 (e)	9
	Total	5	8	3	16

* Letters *a* through *e* refer to practice cases.
† Changes during the project period.

fied a set of emerging codes (not determined a priori) of features of practices and PCs that potentially helped explain the high performance of these exemplar practices. Third, we examined features we found to be particularly important in exemplar practices, applying a constant comparative method[17,18] to other "contrasting cases" for confirming or disconfirming findings and further hypothesis generation.

We used verification and comparative methods throughout our data analysis to enhance the credibility of our findings.

Results
Step 1. Variability in Improvements in Depression Care and Use of Effective Change Processes

We found considerable variability among participating practices in terms of the improvements they made in depression care and whether and how they used change processes to help make these and other improvements (Table 1, above). Of 16 practices, 13 made meaningful improvements in depression care (see Nease et al.[9] for a more thorough analysis of changes in quality of depression care), with nearly half (*n* = 7) increasing their adoption of effective processes of change in making these and other practice improvements.

Step 2. Salient Features of Exemplar Practices

Through initial analyses we identified exemplar practices (labeled as "a" in Table 1) that exhibited high adoption of change processes during the course of the study, with high corresponding improvements in depression care. An exploratory analysis of data from these three exemplary practices (compared with other study practices) reveals several interesting and consistent patterns that may help us understand the relationship and time sequence of adopting the change processes and improving depression care.

Speed of Pulling Together an IT. One interesting pattern that

emerged among exemplar practices was that they pulled together their ITs and held IT meetings immediately following the first learning session. This fast start seemed to allow practices to gain personal experience with the change processes early and to share both change and depression tools with other members of the practice. Moreover, PCs (physician and nonphysician) had the opportunity to model new skills as a team and be viewed as offering new resources to the practice.

The Practice Is the IT. Interestingly, all three exemplary practices invited everyone to become a member of the IT following the first learning session. This included both two small solo practices (where the physician and nonphysician PCs made up a large part of the practice) and one larger practice (where both physician—the practice owner–and nonphysician PCs were enthusiastic about the focus on depression and on learning processes for improving their practice). For small practices, in particular, their size made these teams more manageable and efficient to form, to develop realistic plans before leaving learning sessions, to communicate with others in the practice about the depression project upon returning, and to involve other members of the practice in improvement efforts. For the larger practice, despite its size, their detailed action plan enabled swift changes on returning from the learning sessions. Of note, although all three exemplar practices had turnover of key staff during the course of the project (for example, all three nonphysician PCs changed), new staff joined the IT or changed roles to adapt to these changes.

Consistency of Meetings. For all three exemplary practices, the IT scheduled frequent (often weekly) meetings after returning from the first learning session. Although throughout the course of the project other competing demands led to changes in meeting length and frequency, exemplary practices seemed to view IT meetings as an important activity of the practice and continued to meet after the project ended.

Depression as Key Focus of IT Meetings. All three exemplary practices focused on improving depression care in their meetings. Although they also addressed other clinical and operational issues, depression care was a primary focus of their meetings early on (for all) and throughout the project (for two of the three).

Involvement and Influence of Physician Champion. The physician champions in exemplary practices took active roles in the IT, supporting nonphysician champions in their roles, reinforcing the importance of staff participation, and endorsing the importance of the project and depression care improvement throughout the practice. In two of the three exemplar practices, the nonphysician champion served as the IT facilitator.

Agility and Adaptability. Perhaps because of several of the factors listed previously, all three primary care offices seemed to exhibit the ability to continually problem solve and make changes in tools and strategies for improving depression care and change processes throughout the course of the study. Practices made changes to RAP cycle forms, made laminated versions of the PHQ-9 for exam rooms, integrated the PHQ-9 into other screening tools, tested different monitoring and tracking systems using different office personnel, and continually identified more efficient and sustainable methods of depression screening.

Practice Culture. Two of the three exemplar practices had a culture that emphasized the importance of research and quality improvement (QI) and had participated in previous practice-based research studies or QI projects. These past experiences may have enhanced each practice's readiness or capacity to adopt and implement practice change processes and depression care improvements they were exposed to during the three learning sessions.

STEP 3. CONFIRMATORY EVIDENCE FROM CONTRASTING CASES

Although an in-depth comparative analysis of all cases in Table 1 is beyond the scope of this article, an analysis of particular cases helped us to further explore the association between improving quality of depression care and adopting effective change processes. One illustrative case is labeled "b" in Table 1—a practice that made dramatic improvements in change processes but little improvement in depression care. In this practice, champions quickly pulled together an IT after the first learning session, invited a diverse group of physicians and office staff to participate, and held frequent and consistent meetings throughout the course of the project (focused mainly on practice operations). The practice did not, however, make or sustain substantial improvements in its depression care. If you compare this practice with the three exemplary practices, however, a few important ingredients seem to be missing: This site did not focus on improving depression care in IT meetings and did not have an influential physician champion who actively shared ideas and tools from the learning sessions with other physicians or office staff. In addition, its larger size may have made changes in depression care and practice improvement difficult, particularly because key leadership was not actively involved in the project. All members of the practice did not serve on the IT (but the team was diverse), and most decisions were made in conjunction with other departments and clinics under the supervision of the medical director.

Cases "c" and "d" offer additional insight about how dramat-

Table 2. Features of Exemplar and "Contrasting Case" Practices by Quality Improvement (QI) in Depression Care and Adoption of Change Processes (CPs)*			
Features Present in Exemplar Practices	**Comparative (Contrasting Case) Practices†**		
High QI/High CP	**High QI/Low CP**	**Low QI/High CP**	**Low QI/LowCP**
Depression key focus of IT	No	No	No
Involved, influential physician PC	Yes	No	No
Quick adoption of IT	Mixed	Yes	No
IT part of office routine	Mixed	Yes	No
All/diverse members on IT	Mixed	Yes	No
Practice culture of QI	No	No	No
Participatory leadership	No	No	No

* IT, improvement team; PC, practice champion.
† Excluded one practice ("c") that is High QI/Medium CP.

ic improvements in depression care occurred, even with less aggressive adoption of the change processes as in the exemplar practices. In both cases, physician champions were quite influential and were very interested in improving depression care. In addition, the physician champions made substantial changes in their own depression care. However, their adoption of change processes was distinctly different from one another and from exemplar practices. In Case "c," the physician champion (one of three physician owners of a practice) quickly pulled together an IT, included diverse staff and a patient on the IT (the entire practice did not serve on the IT), and held frequent and consistent meetings. In contrast, the practice itself used a top-down management style whereby the three physicians deliberated for a long time on issues and then made decisions on their own, with minimal input from staff. The physician champion was the only partner who was QI–oriented; he viewed the IT as an excellent mechanism for improving communication among staff and addressing primarily nonclinical issues. Depression care was not a major focus of the IT; the physician champion provided much of the depression care himself (including calling back depressed patients). In Case "d," the physician champion was unable to attend the first learning session. Consequently, the IT did not fully develop until after the next learning session, from which the physician champion gained a better understanding of more effective change processes. The IT eventually included a diverse group of staff, but met less frequently and sporadically. The IT was discontinued after the third learning session because of conflicting priorities and other competing demands in the practice. For this practice, the physician champion believed that the "PHQ was much easier to implement directly than through the change processes" because it did not require ongoing involvement of nonphysicians to implement. The extent to which these initial changes in depression

care are sustained without tools for ongoing process change, however, is unknown.

Finally, an analysis of the two cases labeled as "e" in Table 1 confirmed initial findings by demonstrating an absence of those features we found to be particularly important in the exemplar practices. Both practices had a difficult time getting anything started following the first leading session, found it difficult to schedule and hold regular IT meetings, lacked a strong physician practice champion to provide key leadership and support for the project, lacked a QI culture, had a top-down management style, and showed little evidence of a strong and consistent interest in either improving depression care or learning more effective processes for change. In one of the practices, the level of experience of practice champions, competing demands, and turnover all made it difficult for meaningful change to occur.

A summary of key features of exemplar practices compared to "contrasting case" practices is presented in Table 2 (above). Yet, it is important to note that these findings are based on exploratory analyses of a small number of practices; there is a clear need for further research to confirm and extend these preliminary findings.

Discussion

In this exploratory qualitative study, we found that nearly all practices that showed the greatest improvements in depression care also used more effective processes for change. Rarely did practices show large and sustained improvements in depression care absent improvements in their change processes. These findings support Solberg's thesis that successful QI efforts should address both clinical content and change processes.[8]

We found distinguishing features among exemplar practices that made improvements in depression care and adopted change processes during this project: Practices that included all

(diverse) members on their ITs demonstrated the ability to initiate changes in depression care and change processes most quickly, as did those practices that consistently met and focused their meetings on improving depression care. Features such as having visible, consistent leadership support (active involvement of the physician PC, use of participatory processes in making changes) and having the capacity to be agile and adaptable also emerged as important in distinguishing exemplar practices. The importance of many of these qualities on successful practice change has been demonstrated in more than a decade's worth of systematic research that applies concepts of complexity science to understand primary care practice change[5–7] and in an extensive literature from the organizational/management sciences that supports the importance of having physician leaders who are engaged, able to lead, and visibly supportive of participatory processes in ongoing QI.[19–22]

The fact that only a few practices were able to make sustained improvements in depression care without concomitant improvements in care processes is noteworthy. However, it is not clear from the present study to what we can attribute this finding—or whether observed improvements in depression care lasted beyond our study period. This is an important area for future research.

This depression improvement project adds to the literature on the impact of improvement collaborative projects, which to date have demonstrated mixed effects in a variety of chronic diseases,[23,24] including depression.[25,26] In projects using more traditional collaborative models of change, learning sessions have tended to focus more on improving the content of care, less on learning and using change management skills for implementing improvements in care. Also, in contrast to previous practice change interventions that guided our project, ours was among the first to rely on training PCs (rather than project personnel) to facilitate improvements in care.

The results of this initial exploratory analysis, however, should be interpreted with caution. First, ours was a pilot intervention in 18 primary care practices that did not include a comparison group; any demonstrated improvements are subject to several sources of bias.[27] For example, observed changes in participating practices could be due to the presence of other local QI programs or new policies not associated with our depression improvement intervention. Also, although we had access to considerable quantitative and qualitative data in this depression improvement initiative, nearly all of the data were collected from a distance. For qualitative data we relied on phone interviews, e-mail correspondence, and group interviews and observation during learning sessions rather than from site visits and direct observation. Moreover, we relied primarily on data from each practice's two PCs, an incomplete picture of a practice's experience in this project subject to social desirability.

Because of considerable geographic variability of participating practices and a modest project budget, the amount of data collected in this project was substantially less than that usually collected in multimethod assessment processes[28] used in previous studies on which this project is based. Finally, although we were able to examine changes at 13 months from baseline (6 months following the third learning session), we were not able to follow practices for a longer period of time. The study's time frame may have limited our ability to determine whether changes reported six months after the third learning session were further sustained and whether those practices showing modest improvements in depression care and/or change processes were able to make changes later.

Despite these limitations, this study provides support for the importance of understanding a practice's adoption of effective changes processes within the context of improving clinical care. Much of our research to date has focused on one or the other, with the impact of their co-occurrence absent in most research. Our findings also suggest that future research would benefit from designs that improve understanding of diverse patterns of change in both clinical care and change processes—and of their potentially wide-ranging impact on patients and on the people who work in these primary care practices. **J**

Online-Only Content

See the online version of this article for Appendix 1. Guiding Principles of the Reflection Action Process (RAP Model).

Deborah S. Main, Ph.D., is Professor, Department of Family Medicine, University of Colorado, Denver; and Senior Scientist, American Academy of Family Physicians National Research Network, Leawood, KS; and **Deborah Graham, M.S.P.H.,** is Associate Research Director, American Academy of Family Physicians National Research Network. **Paul A. Nutting, M.D., M.S.P.H.,** is Director of Research, Center for Research Strategies, Denver. **Donald E. Nease, M.D.,** is Associate Professor, Department of Family Medicine, University of Michigan, Ann Arbor, Michigan. **W. Perry Dickinson, M.D.,** is Professor, Department of Family Medicine, University of Colorado–Denver. **Kaia Gallagher, Ph.D.,** is President, Center for Research Strategies. Please address correspondence to Deborah S. Main, debbi.main@uchsc.edu.

References

1. Martin J.C., et al.: Future of Family Medicine Project Leadership Committee: The future of family medicine: A collaborative project of the family medicine community. *Ann Fam Med* 2(suppl.1):S3–S32, Mar.–Apr. 2004.

2. Blue Ribbon Panel of the Society of General Internal Medicine: Redesigning the practice model for general internal medicine: A proposal for coordinated care. *J Gen Intern Med* 22:400–409, Mar. 2007.

3. Jaen C.R., Stange K.C., Nutting P.A.: Competing demands of primary care: A model for the delivery of clinical preventive services. *J Fam Pract* 38:166–171, Feb. 1994.

4. Miller W.L., et al.: Understanding change in primary care practice using complexity theory. *J Fam Pract* 46:369–376, May 1998.

5. Miller W.L., et al.: Practice jazz: Understanding variation in family practices using complexity science. *J Fam Pract* 50:872–878, Oct. 2001.

6. Cohen D., et al.: A practice change model for quality improvement in primary care practice. *J Healthc Manag* 49:155–168, May–Jun. 2004.

7. Stroebel C.K., et al.: How complexity science can inform a reflective process for improvement in primary care practices. *Jt Comm J Qual Patient Saf* 31:438–446, Aug. 2005.

8. Solberg L.I.: Improving medical practice: A conceptual framework. *Ann Fam Med* 5:251–256, May–Jun. 2007.

9. Nease D.E., et al.: Inducing sustainable improvement in depression care in primary care practices. *Jt Comm J Qual Patient Saf* 34:247–255, May 2008.

10. Kroenke K., Spitzer R.L., Williams J.B.: The PHQ-9: Validity of a brief depression severity measure. *J Gen Intern Med* 16:606–613, Sep. 2001.

11. Wagner E.H., Austin B.T., Von Korff M.: Improving outcomes in chronic illness. *Manag Care Q* 4:12–25, Spring 1996.

12. Dietrich A.J., et al.: Re-engineering systems for the treatment of depression in primary care: Cluster randomised controlled trial. *BMJ* 329:602, Sep. 11, 2004. Epub Sep. 2, 2004.

13. Nutting P.A., et al.: Implementing a depression intervention in five health care organizations: Experience from the RESPECT-Depression Trial. *Adm Policy Ment Health* 34:127–137, Mar. 2007. Epub Sep. 13, 2006.

14. VonKorff M.: Can care management enhance integration of primary and specialty care? *BMJ* 329:605, Sep. 11, 2004.

15. Crabtree B.F., Miller W.L.: Using codes and code manuals: A template organizing style of interpretation. In Crabtree B.F., Miller W.L. (eds.): *Doing Qualitative Research,* 2nd ed. Thousand Oaks, CA: Sage Publications, 1999, pp. 163–167.

16. Addison R.B.: A grounded hermeneutic editing approach. In Crabtree B.F., Miller W.L. (eds.): *Doing Qualitative Research*, 2nd ed. Thousand Oaks, CA, Sage Publications: 1999, pp. 145–163.

17. Glaser B.G., Strauss A.: *The Discovery of Grounded Theory: Strategies for Qualitative Research.* Chicago Aldine Publishing Co., 1967.

18. Lincoln Y.S., Guba E.G.: *Naturalistic Inquiry.* Thousand Oaks, CA: Sage Publications, 1985.

19. Berwick D.M.: Disseminating innovations in health care [see comment]. *JAMA* 289:1969–1975, Apr. 16 2003.

20. Bradley E.H., et al.: A qualitative study of increasing beta-blocker use after myocardial infarction: Why do some hospitals succeed? *JAMA* 285:2604–2611, May 23–30, 2001.

21. Shortell S.M., Bennett C.L., Byck G.R.: Assessing the impact of continuous quality improvement on clinical practice: What it will take to accelerate progress [see comment]. *Milbank Q* 76(4):593–624, 1998.

22. Bradley E.H., et al.: Quality improvement efforts and hospital performance: Rates of beta-blocker prescription after acute myocardial infarction. *Med Care* 43:282–292, Mar. 2005.

23. Schonlau M., et al.: Evaluation of a quality improvement collaborative in asthma care: Does it improve processes and outcomes of care? *Ann Fam Med* 3:200–208, May–Jun. 2005.

24. Landon B.E., et al.: Effects of a quality improvement collaborative on the outcome of care of patients with HIV infection: The EQHIV study. *Ann Intern Med* 140:887–896, Jun. 1, 2004.

25. Katzelnick D.J., et al.: Applying depression-specific change concepts in a collaborative breakthrough series. *Jt Comm J Qual Patient Saf* 31:386–397, Jul. 2005.

26. Meredith L.S., et al.: Implementation and maintenance of quality improvement for treating depression in primary care. *Psychiatr Serv* 57:48–55, Jan. 2006.

27. Shadish W.R., Cook T.D., Campbell D.T.: *Experimental and Quasi-Experimental Designs for Generalized Causal Inference.* Boston: Houghton Mifflin Company, 2002.

28. Kairys J., et al.: Assessing diversity and quality in primary care through the Multimethod Assessment Process (MAP). *Quality Management in Health Care* 10:1–14, Summer 2002.

Online-Only Content

Appendix 1. Guiding Principles of the Reflection Adaptation Process (RAP)

■ Having a vision, mission, and shared values will guide a practice in making ongoing improvements. A practice vision and mission focuses the improvement team on defining what the practice wants to become and how to get there.

■ Improvement teams need to meet at a regularly defined time and place to reflect on and learn from their activities. Effective meetings allow teams to define how the practice currently works and the types of changes they want to undertake.

■ Tension and conflict are normal during practice change. Improvement teams must set ground rules to encourage all opinions to be heard and to handle resulting conflicts.

■ Including diverse members on the improvement team broadens the skills and opinions that contribute to practice change. Improvement teams should include representatives from the practice's different functional areas and should invite patients to participate as well.

■ Practice leaders need to actively support and be involved in a change process, endorsing the improvement team goals and protecting time and resources the team needs for the process to flourish.

■ Core improvement team goals include the following:
- Relationships within the practice should be built on trust, honesty, and self-respect, with all perspectives valued.
- Practices should be open to self-reflection and new ideas.
- Practices should acknowledge how all parts of the practice are dependent on each other to produce a well-functioning practice.
- Practices should appreciate the value of diversity in practice roles and staff backgrounds. Differences of perspectives strengthen the practice's internal and external connections.
- Practices should employ both formal and informal means of communication, determining when each is most appropriate.
- Practices should have a balance between strong and weak connections both internally and externally to allow for innovation and the adoption of new ideas while maintaining interconnections among staff.