EDITORS' NOTE

Primary Care Research Conducted in Networks: Getting Down to Business

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This seventh annual practice-based research theme issue of the *Journal of the American Board of Family Medicine* highlights primary care research conducted in practice-based research networks (PBRNs). The issue includes discussion of (1) theoretical and methodological research, (2) health care research (studies addressing primary care processes), (3) clinical research (studies addressing the impact of primary care on patients), and (4) health systems research (studies of health system issues impacting primary care including the quality improvement process). We had a noticeable increase in submissions from PBRN collaborations, that is, studies that involved multiple networks. As PBRNs cooperate to recruit larger and more diverse patient samples, greater generalizability and applicability of findings lead to improved primary care processes. (J Am Board Fam Med 2012;25:553–556.)

This annual practice-based research theme issue of the *Journal of the American Board of Family Medicine* highlights primary care research conducted in practice-based research networks (PBRNs). Primary care research has been defined as "research that is directed toward the better understanding and practice of the primary care function" as defined by the Institute of Medicine.[1] Primary care research includes (1) theoretical and methodological research, (2) health care research (studies addressing primary care processes), (3) clinical research (studies addressing the impact of primary care on patients), and (4) health systems research (studies of health system issues impacting primary care including the quality improvement process).[2] Among the studies included in this issue, 5 fit into category 1,[3–7] 5 fit into category 2,[8–12] 5 fit primarily within category 3,[13–17] and 6 fall within category 4.[18–23]

Methodological studies (category 1) include information about new network development,[5] a description of current networks from the Agency for Healthcare Research and Quality (AHRQ) PBRN Resource Center,[6] challenges to the future development of PBRNs,[7] and the suggestion that multinetwork studies might benefit from cultivation and use of coordinating centers.[4] Of the 143 PBRNs registered with the AHRQ Resource Center (a 30% increase in 1 year), more than 80% were local or regional. Surprisingly, nearly one-third are not university-based.

Valuck et al[3] used electronic health record data from a large network of practices to better characterize depression episodes among adolescents and adults seen in primary care. Although their purpose was not to develop a decision support tool, a key aspect of the study was the use of the 9-item Patient Health Questionnaire screening tool to identify patients who might be depressed.

Two studies of primary care processes (category 2) involved the development, testing, or both of decision support techniques intended to reduce errors or improve quality of care when evaluating or managing patients with common health concerns. For example, Nemeth et al,[8] from the Medical University of South Carolina, report the positive impact of implementing a health maintenance template to formalize standing orders for nurses within an electronic health record in a group of practices in PPRNet. Their approach successfully combined best practices identified within their network with

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concepts derived from previous research about standing orders.[24–28] This study also highlights the increasing importance of teamwork in primary care.

Strayer et al[9] at the University of Virginia and the Virginia Practice Support and Research Network (VaPSRN) report the results and implications of a pilot study of a point-of-care decision support tool designed to help clinicians counsel patients about problem drinking. This work builds on the previous successful development and implementation of a tobacco cessation counseling decision aid and on prior research conducted by others[29] showing that brief counseling can be effective for reducing problem drinking when delivered in a primary care setting.

Gorman et al[10] report the results of a multi-PBRN study of factors associated with the perceived safety of primary care measured using clinician and practice staff responses to the Medical Office Survey of Patient Safety. The finding that small practices scored significantly higher on self-perceived patient safety than did larger practices supports my impression that small practices are more adept at quality improvement and suggests that policymakers and administrators should be mindful when promoting the advantages of large health systems. Hill et al[11] remind us that there is still a significant segment of our society that has limited access to and perhaps prefers not to use informational technology for health care communications.

In the final study in category 2, Salz et al[12] investigated perceived challenges associated with coordination of care between oncologists and primary care clinicians in regard to colorectal cancer survivors. They were able to document a number of specific ways that communication between oncologists and primary care clinicians could be improved. Their work supports the Institute of Medicine's[30] recommendation that all cancer survivors and their primary care clinicians should be given survivorship care plans.

Category 3 includes a mixed-methods study conducted by Elder et al[14] at the University of Cincinnati, which documents that nearly 50% of patients with chronic nonmalignant pain are treated with opioids and that these patients are more likely to have a concurrent mental health diagnosis. Although practices attempted to meet chronic pain management guidelines, they fell far short of doing so, and coordination between physicians and medical assistants in the care of these patients needed improvement.

Articles by Baumgardner[16] and Messina et al[17] review soil-related infections and cognitive-behavioral clues to Kleinfelter syndrome in adolescents, respectively. Force et al[13] documented that, because of the increasing incidence of diabetes, hypertension, and hyperlipidemia in women of childbearing age, a substantial number of these women are taking medications with potential fetal toxicity, and documentation of informed consent in these cases was infrequent. Sellers et al[15] report that the frequency of "difficult encounters with psychiatric patients" occur at about the same frequency in psychiatry practices and primary care practices.

Five studies involved quality improvement interventions (category 4). Shaw et al[18] used qualitative methods to investigate the importance of a practice champion to the change process, concluding that 2 different kinds of champions often are required. The other 4 studies illustrate the difficulties involved in measuring and then trying to improve primary care processes. Casciato et al[22] once again documented the need to field test proposed guidelines before releasing them for general use. They report that clinically relevant modifications to recommended pediatric quality measures resulted in substantially different adherence rates, reflecting a much higher actual level of quality.

Erskine et al[21] attempted to create "a culture of fitness" within primary care practices, hoping that this would increase the frequency and effectiveness of efforts to help patients engage in healthier behaviors. The idea for this approach came from practice, and, even though the intervention succeeded only in increasing clinicians' short-term intentions to eat better, it should not discourage further research involving this approach. There are many possible reasons why the intervention failed, including the fairly low intensity of support provided to intervention practices.

Fernald et al[19] analyzed data from the second wave of Robert Wood Johnson Foundation/AHRQ–funded Prescription for Health projects to measure the degree of success achieved by 54 practices in 7 different PBRNs in helping patients reduce unhealthy behaviors. The results were mixed, with most unhealthy behaviors improved, but each in only a minority of networks. Levels of physical activity were reduced in one network. Perhaps most

interesting is the study reported by Hilbink et al,[20] which found that, although a robust, multicomponent quality improvement strategy was associated with a reduced rate of problem drinking, patients in control practices reduced their rate to an even greater extent. The authors propose that regression to the mean and several methodological challenges probably explain these unanticipated results.

The final study in category 4 is Pathman and Konrad's[23] update on the stimulative effect of the American Recovery and Reinvestment Act on the National Health Service Corps (NHSC) in terms of size, composition, and location of the NHSC's workforce. During the Recovery Act period, the NHSC workforce increased by 156%, with the greatest growth among mental health professionals and the least increase in primary care clinicians. Nurse practitioner was the discipline with the greatest proportional growth. The proportion of the NHSC workforce serving in rural areas changed only modestly, yet the workforce is now more evenly distributed across states.

The articles in this issue illustrate a broad range of topics and approaches to improving primary care research and practice. Clearly we need more primary care research in all categories. In this seventh annual *Journal of the American Board of Family Medicine* PBRN theme issue, we observe an increase in the articles from PBRN collaboratives.[4,10,12,18,19,21] It is great to see that PBRNs are increasing in number, cooperating to harness their power to recruit larger samples and provide greater generalizability of findings, and getting down to business.

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