

One Size Doesn't Fit All

Multimethod Research Yields New Insights into Interventions to Increase Prevention in Family Practice

Kurt C. Stange, MD, PhD
Cleveland, Ohio

The article by McVea, Crabtree, Medder, and colleagues¹ in this issue of the *Journal* is groundbreaking in its methods, insights into real-world family practice, and implications for efforts to alter medical practice. The authors, in collaboration with eight family practices, attempted to understand the applicability of the "Put Prevention into Practice" (PIIP) program in aiding efforts to deliver clinical preventive services in private family practice. PIIP is the culmination of several years of work by the US Public Health Service's Office of Disease Prevention and Health Promotion, and has been widely publicized. It incorporates many of the office systems approaches that the past decade of research has shown to be effective in helping clinicians increase the rate of preventive services delivery. Despite the excellent pedigree of PIIP, none of the physicians who had voluntarily ordered the materials were actually using them in practice. As one peer reviewer of this paper observed, this finding "puts the final nail in the coffin of the old paradigm" of approaches to improving clinical preventive service delivery.

A RIGOROUS MULTIMETHOD APPROACH

How was this startling rebuttal of the old paradigm, and early insights into a new paradigm, accomplished? The authors used an exploratory multimethod case study approach, in which in-depth observations of actual practice were made from multiple viewpoints. By selecting only practices that had ordered PIIP, the authors ensured that the clinicians being studied were at least aware of and interested in the PIIP program and in methods of improving their delivery of preventive

From the Departments of Family Medicine, Epidemiology and Biostatistics, and Sociology, and the Cancer Research Center, Case Western Reserve University, Cleveland, Ohio. Requests for reprints should be addressed to Kurt C. Stange, MD, PhD, Case Western Reserve University, 10900 Euclid Ave, Cleveland, Ohio 44106.

services. The inductive, open-ended approach of the qualitative methods of the study provided maximal opportunity for discovering new information unencumbered by the narrowing effect of a priori hypotheses and quantitative measures.² The use of quantitative counts of the rate of delivery of marker preventive services provided a hard outcome measure. Multiple sources of data were obtained, including insights from family physicians, nurses, office staff, and a medical student observer. In addition, data were summarized and analyzed by multiple researchers. This use of multiple data sources and analysts is called "triangulation"³ in the qualitative research literature, and helps to ensure the robustness and reproducibility of findings. The description of the methods used to obtain and analyze the data are well specified and very clearly presented. From this description, other researchers could replicate the authors' methods, and attempt to verify or refute the findings. Such rigor goes a long way toward convincing critics of qualitative and multimethod research, who are often concerned that the central role of the researcher and subjects as the research instruments makes findings too subjective and idiosyncratic to be valid.

The eight practice sites for the study should be commended for their active participation in this brief but intensive study. The future of family practice is dependent on the participation of real-world practices in research designed first to understand and ultimately to improve our approach to caring for patients.

NEW INSIGHTS

PIIP is a state-of-the-art program. The major components of these office systems materials have been shown to work in at least one clinical trial. A similar package of office materials has been shown to work when individualized to the particular needs of motivated practitioners.⁴ The PIIP system itself has been found to be effective in increasing

the rate of preventive service delivery in residency training practices (Kikano GE, Stange KC, Zyzanski SJ, Flocke SA, unpublished data, 1996).⁵ It did not work in these eight interested practices, however, because it was not implemented. The reason PPIP was not implemented varied with the particular situation of each site; however, three practice typologies emerged from the analysis of the multimethod data to explain some of these reasons.

The three practice types were differentiated by their delivery of preventive services: the first type provided a very limited amount of preventive services; the second provided predominantly screening and early detection preventive services; the third type provided both screening and health-habit counseling. These three practice types also can be categorized by their degree of proactivity in dealing with the competing demands and opportunities of family practice.⁶ Competing demands were present at each site, yet the sites with low levels of preventive service delivery were nearly overwhelmed by the competing demands of providing acute and chronic illness care and meeting other practice needs. Practices that provided a higher level of preventive service delivery had been able to step back from the daily grind of reacting to crises, and had developed systems approaches to involving the entire office staff in the delivery of preventive and other services. Offices that had already developed their own highly adapted systems found that PPIP offered little over their own approaches. Offices that did not already have proactive office systems approaches were too caught up in reacting to the day-to-day demands to implement the PPIP systems. Whereas a reactive approach can be functional in caring for illnesses with which patients present, focusing on preventive service delivery requires additional proactivity, because during most patient visits, it is the clinician or office staff who must bring up the issues of prevention. Adding this competing demand can quickly become overwhelming if the physician accepts the entire burden. These additional demands are readily managed, however, by offices that have proactively developed systems so that responsibility is shared with office staff.

Thus, the major difference between the four practices delivering limited preventive services and those providing a higher level appears to be proactivity in dealing with competing demands. An addi-

tional difference between those delivering only screening services versus both screening and counseling appears to be their philosophy of what constitutes the focus of the family physician and office staff interaction with the patient. Physicians who performed a high level of health-habit counseling saw helping patients with behavior change as an important part of their role as family physicians. These practices' focus on counseling as well as screening preventive service delivery is also influenced by physicians' confidence, skill, and perceived success in health-habit counseling, which is an area of frustration for many primary care physicians.⁷

The findings of the study by McVea, Crabtree, Medder, and colleagues are highly relevant to efforts to implement the rapidly burgeoning number of practice guidelines.^{8,9} At their best, evidence-based guidelines and prepackaged offices systems materials like the PPIP system can be an efficient way of making state-of-the-art information and tools accessible to practitioners who are busy "taking care of the folks."¹⁰ Even the best generic guidelines and office systems materials, however, need to be adapted to the circumstances of individual practices and patients if they are to be successfully implemented.

Practices are complex organizations that are already highly adapted to meeting the needs of their local environments and individual participants. This is true even of practices that are part of a larger managed care system, although centralized managed care systems will tend to dampen some of the large degree of variability seen in independent private practices. Having been trained in depth during medical school and residency in the practice of medicine, but generally superficially trained in running a practice, physicians have evolved a wide variety of approaches. Thus, it is not surprising that "one size doesn't fit all" when it comes to implementing office systems designed to change practice. The emerging literature on changing physician practices has shown the limited value of passive approaches, such as standard continuing medical education or audit with feedback.¹¹ In addition to adaptation to local needs, effective efforts to improve practice should include active participation by the physician and practice staff, local opinion leaders,¹² altered incentives,¹³ or organizational changes.¹⁴

Developing systems to deliver preventive services requires a high degree of proactivity. Those practices that have evolved this high degree of proactivity will likely have already developed their own individualized systems. Those practices that operate in primarily a reactive mode will be unlikely to develop the space necessary to implement a proactive new office system without a change in philosophy, development of new skills, or outside help.

IMPLICATIONS

Attempts to *change* practice should be preceded by well-grounded efforts to *understand* practice. Particular emphasis should be placed on how the unique aspects of each practice are adapted to its participants and local environment.

Inductive, multimethod approaches hold great promise for increasing understanding of practice. The paper by McVea, Crabtree, Medder, et al shows that these methods can be implemented and described with rigor.

- A "work harder" approach that places the entire burden for illness and preventive care on the physician is inherently limited.

- The ability to innovate or to adopt new technology requires an ability to develop a proactive approach.

- Physician philosophy appears to have an important effect on the content of service delivery to patients. The degree of mutability of physician philosophy is not known.

Office systems approaches are very important to effective clinical preventive service delivery. These systems are unlikely to be adopted, however, by those practices which could most benefit, without assistive interventions that take into account a practice's readiness to change,¹⁴ ability to take a proactive stance, and the clinicians' philosophy on the focus of patient care and role of office staff.

Competing demands are a universal aspect of family practice; however, approaches to managing competing demands are highly variable. This variability is a potential source of new insights into effective and efficient approaches to patient care.

Additional study with larger and more varied samples is needed to examine the generalizability and robustness of the observed practice typologies. Prospective studies of practices over time

would be useful to determine how different practice typologies develop and are influenced by internal and external factors. Studies of practices that have successfully implemented PPIP would also be useful. Finally, the conclusions of the current study could be validated with an additional source of triangulation, by sharing them with the participating practices, and by asking the study participants to confirm, refine, expand, or refute various aspects of the findings. More studies of this type are needed to understand the modes of practice that experienced clinicians have developed, and to track the effect of the many natural experiments that are ongoing in our health care system.

REFERENCES

1. McVea K, Crabtree BF, Medder JD, et al. An ounce of prevention? Evaluation of 'Put Prevention into Practice' program. *J Fam Pract* 1996; 43:361-9.
2. Stange KC, Miller WL, Crabtree BF, Zyzanski SJ. Multimethod research: approaches for integrating qualitative and quantitative methods. *J Gen Intern Med* 1994; 9:278-82.
3. Stange KC, Zyzanski SJ. The integrated use of quantitative and qualitative research methods. *Fam Med* 1989; 21:448-55.
4. Dietrich AJ, O'Connor GT, Keller A, Carney PA, Levy D, Whaley FS. Cancer: improving early detection and prevention. A community practice randomised trial. *BMJ* 1992; 304:687-91.
5. Gemson DH, Ashford AR, Dickey LL, et al. Putting prevention into practice: impact of a multifaceted physician education program on preventive services in the inner city. *Arch Intern Med* 1995; 155:2210-16.
6. Jaén CR, Stange KC, Nutting PA. Competing demands of primary care: a model for the delivery of clinical preventive services. *J Fam Pract* 1994; 38:166-71.
7. Weschler H, Levine S, Idelson RK, Schor EL, Coakley E. The physician's role in health promotion revisited—a survey of primary care practitioners. *N Engl J Med* 1996; 334:996-8.
8. Woolf SH. Practice guidelines: a new reality in medicine. *Arch Intern Med* 1990; 150:1811-18.
9. Wall EM. Practice guidelines: promise or panacea? *J Fam Pract* 1993; 37:17-19.
10. Stange KC. Practice-based research networks: their current level of validity, generalizability, and potential for wider application. *Arch Fam Med* 1993; 2:921-3.
11. Davis DA, Thompson MA, Oxman AD, Haynes RB. Changing physician performance. A systematic review of the effect of continuing medical education strategies. *JAMA* 1995; 274:700-5.
12. Lomas J, Anderson GM, Domnick-Pierre K, Vayda E, Enkin MW, Hannah WJ. Do practice guidelines guide practice? The effect of a consensus statement on the practice of physicians. *N Engl J Med* 1989; 321:1306-11.
13. Greco PJ, Eisenberg JM. Changing physician practices. *N Engl J Med* 1993; 329:1271-3.
14. Payne BC, Lyons TF, Neuhaus E, Kolton M, Dwarshius L. Method of evaluating and improving ambulatory medical care. *Health Serv Res* 1984; 19:219-45.
15. Main DS, Cohen SJ, DiClemente CC. Measuring physician readiness to change cancer screening: preliminary results. *Am J Prev Med* 1995; 11:54-8.