Changing Organizational Constructs Into Functional Tools: An Assessment of the 5 A's in Primary Care Practices

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PURPOSE

rimary care clinicians have a unique opportunity to identify health risks in their patients and to encourage healthy behaviors, such as smoking cessation, physical activity, proper nutrition, and moderation in the use of alcohol. Yet, even brief evidencebased interventions are inconsistently used by primary care clinicians. The 5 A's model (ask, advise, assess, assist, and arrange) is a tool to assist clinicians in asking patients about their health behaviors and, if patients are found to be at risk, advising them to modify their behavior, assessing their interest in doing so, assisting in their efforts to change, and arranging appropriate follow-up.^{2,3} This article describes baseline data from a larger interventional study testing a nurse consultation model for improving health promotion in primary care practices, and presents the implications of moving the concept of the 5 A's into systematic interventions for multiple unhealthy behaviors. A transition from an organizational construct to a set of evidence-based 5 A tools is essential for primary care clinicians to assist their patients with health behaviors as suggested in the Healthy People 2010 goals for the nation.4

METHODS

Practices in the study selected their own goals for practice improvement based on the 5 A's for 1 or more of the specified health behaviors. Twenty Michigan family medicine and general internal medicine practices belonging to the Great Lakes Research Into Practice Network participated: 10 were rural, hospital-owned practices (69 clinicians), and 10 were metropolitan, largely independent practices (25 clinicians). Practices were provided several services, including determination of their current preventive care activities, identification

of practice improvement opportunities, assistance with planning interventions, and support for implementation and evaluation.

Data collection methods included chart audits and nurse-consultant field notes based on practice observations and interviews with practice clinicians and staff, including their awareness and use of the 5 A's model. A 3-month time frame was identified for the preintervention audit, and all visits by adults for chronic disease (hypertension, cardiovascular disease, diabetes) and health maintenance were selected for that period. Fifty charts per practice were randomly selected for audit, and 1 reference visit was audited per selected chart. Trained nurses conducted the chart audits using a specifically designed chart audit tool and identified guidelines for determination of each of the A's. Relevant items from the reference visit progress note, visit-related laboratory and radiograph reports, and flow sheets were noted and copied verbatim onto the audit form. As a quality assurance measure, the principal investigator reviewed all of the chart audit forms for consistency across abstractors.

LESSONS LEARNED

From the nurse-consultant field notes, we discovered it was rare that anyone in the practice, other than the physicians, had ever heard of the 5 A's. Most of the clinicians who participated in our study were aware of the 5 A's as an organizational construct, but none used it as a functional tool in practice. The rate of documentation of the 5 A's in the medical records at baseline varied by practice and by behavior (Table 1). When present, ask was usually documented on a flow sheet completed at a previous visit. Clinicians most frequently asked about tobacco use and smoking but intervened only in about one third of the patients at risk. Queries about diet were least frequently documented, but dietary interven-

Table 1. Documentation of Asking and Intervention for Health Behaviors in 20 GRIN Practices

Health Behavior	Mean % (No.)	Range* %
Ask rate†		
Tobacco use	81 (791/981)	0-100
Alcohol use	57 (559/981)	0-96
Physical activity	48 (471/981)	2-96
Diet	47 (457/981)	4-98
Any intervention rate [‡]		
Tobacco use	35 (61/174)	0-100
Alcohol use	35 (10/29)	0-75
Physical activity	72 (146/204)	15-100
Diet	85 (181/213)	56-100
All intervention score§		
Tobacco use	0.7	0-2.5
Alcohol use	0.7	0-2.0
Physical activity	1.2	0.3-3.3
Diet	1.8	1.2-3.7

GRIN = Great Lakes Research Into Practice Network

Note: Asking was defined as documented use of ask among all patients making visits. Intervention was defined as documented use of any A past ask (advise, assess, assist, or arrange) among patients identified to be at risk for that behavior.

- * Range across the 20 practices.
- † Number of patients for which ask was documented/number of patient visits. ‡ Number of patients for which any A past ask (advise, assess, assist, or arrange)
- * Number of patients for which any A past ask (advise, assess, assist, or arrange) was documented/number of patients identified to be at risk for that behavior.

 **Total number of 4.1/* Jaking assess, assist, or arrange) documented per patients.
- § Total number of 4 A's (advise, assess, assist, or arrange) documented per patient among patients identified to be at risk for that behavior. Possible range of scores: 0 (minimum) to 4 (maximum).

tions were most commonly documented for those at risk. More of the 4 A's beyond ask were documented for dietary interventions than for any of the other behaviors. Dietary interventions were typically documented in the reference visit progress note and were often paired with recommendations for increased physical activity. Advice was the most commonly documented of the remaining 4 A's for each behavior. For most practices in the study, documentation of assess, assist, or arrange was minimal. It appeared from the documentation that most clinicians were unaware of the importance of assessing the patient's readiness to change as a key step in assisting with behavioral change and arranging appropriate follow-up.

DISCUSSION

The 5 A's have been widely used in high-quality, controlled clinical trials in tobacco cessation and brief primary care interventions for a variety of behaviors.^{3,5-7} Unfortunately, there are few validated, functional supportive resources for screening, monitoring, and intervening for unhealthy behaviors.^{4,8} Current research also indicates that successful practice interventions involve systematic processes using multiple members of the practice team, and not just relying on the physician

alone.⁹⁻¹¹ This finding has important implications for the practical use of the 5 *A*'s tool in that practice staff members must be skilled in its use as well.

Chart audits may either overreport or underreport actual clinician behavior. Previous research shows that chart documentation often underestimates what actually occurs during the office visit. 12 Had the actual intervention rates by clinicians in the present study been double those found in the medical records, however, the level of intervention for assess, assist, and arrange would fall short of the ideal. Because assist and arrange were the least frequently documented of the 5 A's, patients who are ready to change would receive little help in reaching their goals. On the other hand, simple advice, assistance, and follow-up arrangements in the absence of an appropriate assessment of a patient's readiness to change may not be effective in changing patient behavior. The chart audit does not capture the dynamic nature of the 5 A's and thus may overstate the effectiveness of an intervention (ie, produce a false-positive result).

There are additional limitations to this study. The sample of practices selected for this study may not be representative of other primary care practices in their use of the 5 A's for these behaviors. Some arbitrary decisions were made in coding each A within the 5 to maintain consistency in coding. These decisions may not reflect the true intervention delivered to the patient. Finally, these data represent documentation rates, not rates of actual delivery of services, which may have been higher or lower.

CONCLUSIONS

Despite widespread support for their use, the 5 A's remain an organizational construct with limited practical penetration into the primary care practices in this study and most likely other primary care practices nationwide. This study suggests that practices need clinical staff with a better understanding of the 5 A's framework, including brief assessment strategies, systematic approaches to the use of the 5 A's supported by the whole practice team, and development of supportive resources such as chart prompts and other practical tools.

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Key words: Primary care; 5 A's; smoking cessation; physical activity; diet; alcohol drinking; practice-based research

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References

- Ewing G, Selassie A, Lopez C, McCutcheon E. Self-report of delivery of clinical preventive services by US physicians: comparing specialty, gender, age, setting of practice, and area of practice. *Am J Prev Med*. 1999;17:62-72.
- 2. Whitlock E, Orleans C, Pender N, Allan J. Evaluating primary care behavioral counseling interventions: an evidence-based approach. *Am J Prev Med*. 2002;22:267-283.
- Fiore M, Bailey W, Cohen S, Dorfman S, Goldstein M. Treating Tobacco
 Use and Dependence: A Clinical Practice Guideline. Rockville, Md: US Department of Health and Human Services, Public Health Services; June 2000.
- US Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. Washington, DC: US Government Printing Office; 2000.

- Pinto B, Lynn H, Marcus B, DePue J, Goldstein M. Physician-based activity counseling: intervention effects on mediators of motivational readiness for physical activity. *Ann Behav Med.* 2001;23:2-10.
- Goldstein M, DePue J, Kazuira A. Models for Provider-Patient Interaction: Applications to Health Behavior Change. 2nd ed. New York, NY: Springer; 1998.
- Ockene J, Ockene I, Herbert J, et al. Physician training for patientcentered nutrition counseling in a lipid intervention trial. Prev Med. 1995;24:563-570.
- Thompson R. What have HMOs learned about clinical prevention services? An examination of the experience at Group Health Cooperative of Puget Sound. Milbank Q. 1996;74:469-590.
- Solberg L, Brekee M, Fazio C, et al. Lessons from experienced guideline implementers: attend to many factors and use multiple strategies. Jt Comm J Qual Improv. 2000;26:171-188.
- Solberg L. Guideline implementation: what the literature doesn't tell us. Jt Comm J Qual Improv. 2000;26:525-537.
- 11. Solberg L. The KISS principle in family practice: keep it simple and systematic. Fam Pract Manag. 2003;10:63-66.
- Stange K, Zyzanski S, Smith T, et al. How valid are medical records and patient questionnaires for physician profiling and health services research? A comparison with direct observation of patient visits. *Med Care*. 1998;36:851-867.

LEAP—A Brief Intervention to Improve Activity and Diet: A Report From CaReNet and HPRN

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PURPOSE

he purpose of our project was to test a practice-level intervention to increase use of evidence-based strategies for promoting physical activity and healthy diet by primary care patients. The intervention is based on the premise that if you create an office culture that promotes healthy behaviors among clinicians and staff, they will be more likely to provide brief behavioral counseling to patients.

METHODS

Leaders in Effective Activity Planning (LEAP) was a randomized study of a multilevel intervention to promote improvement in physical activity and healthy eating through brief counseling, goal setting, and feedback. We

compared an intensive practicewide intervention with a minimal intervention in 12 primary care practices within the Colorado Research Network (CaReNet, n=8) and the High Plains Research Network (HPRN, n=4). Randomization occurred at the practice level.

In 6 intervention practices, clinicians and staff used the behavior change tools to make their own personal changes for 1 month before using these same tools with their patients. These practices received support from change coaches—a nurse practitioner, a family physician, and a registered dietitian or health educator. Coaches helped practices encourage officewide behavior change through group activities and pedometer use. Intervention practices received promotional items (posters, flyers, pins, and ribbons) to advertise to patients the practice members' behavior changes and the LEAP study.

The 6 control practices did not receive coaching or