Improving Health-Related Behaviors
Opportunities and Challenges

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Health behaviors are a major, if not the single greatest, determinant of health. The County Health Rankings attribute 30% of health improvement to those behaviors, and along with the social and physical environmental effects on health behaviors, the amount they contribute to overall health is greater still,1 hence the importance of understanding how we can improve them. This American Journal of Preventive Medicine supplement highlights the work of the U.S. Preventive Services Task Force (USPSTF) and many collaborators who fund and conduct the research and translate the findings into practice.

The primary task of the USPSTF is to review the scientific evidence for the effectiveness of preventive interventions by primary care clinicians and to make recommendations for preventive care practice based on evidence for the net benefit of the intervention. The rigor of the USPSTF’s methods has made its recommendations the gold standard for evidence-based practice. Yet, that very rigor, which is so well suited to the examination of discrete technologies such as screening tests (e.g., screening for prostate-specific antigen or dyslipidemia) and chemoprevention (e.g., hormone replacement therapy or aspirin prophylaxis), makes assessing intrinsically more complex interventions, such as behavioral counseling, a major challenge. This supplement identifies many of the key evidentiary issues: there are major differences in how counseling is actually administered in clinical practice; in many cases, there are long delays between the time counseling is provided and health outcomes can be anticipated and observed; there is a paucity of rigorous studies that meet the USPSTF’s inclusion criteria for relevance to primary care or provide sufficient information on health outcomes rather than behavior change; and the relationship between behavior change and health outcomes is, for some behaviors, less certain than one might expect.

Although we need to know more, physician counseling interventions create only minor harms and have the potential for large benefits. Although “confidence limits” for net benefit may include zero (no effect), the distribution often is skewed far to the right (much more likely to show a benefit). This strongly suggests that using behaviors that are strongly associated with health outcomes are often appropriate surrogates for ultimate health outcomes. At this stage, who can really dispute that excessive alcohol consumption, sedentary lifestyle, excessive weight, or tobacco smoking is harmful and that health benefits won’t accrue if they are ameliorated?

There are additional challenges. Our behaviors are shaped less by medical intervention, and more by our communities, the environments in which we live, learn, work, and play. Those social and environmental influences are not static. In that context, teasing out the effect of brief clinician counseling becomes an even greater challenge. How much can a clinician really influence in the face of communities that do not have safe and walkable streets and little access to parks; fail to provide healthy, tasty, convenient, and affordable food choices; have inadequate taxes on alcoholic beverages and permit an excessive number of alcoholic beverage outlets; and where tobacco taxes are too low and laws on sales of tobacco to minors are poorly enforced? The articles in the supplement use the USPSTF review of screening and behavioral counseling interventions in primary care intended to reduce alcohol misuse to exemplify the Task Force’s approach. Such recommendations also illustrate potential synergies with recommendations from the Community Preventive Services Task Force (CPSTF). The CPSTF has reviewed alcohol-related interventions as well.2 Their recommendations include dram shop liability, increasing alcohol taxes, maintaining limits on days and hours of sale, privatization, regulation of alcohol outlet density, and enhanced enforcement of sales to minors. In addition, there are opportunities for rehabilitation programs, educational initiatives, and control of use of alcohol on college campuses among many others. The range of interventions that communities can take—and that the clinical care system can advocate for—can complement and enhance the work of primary care clinicians. As the CPSTF has repeatedly demonstrated, multicomponent interventions are commonly necessary to secure and maintain behavior change. Clinicians, of
course, can catalyze patients’ actions as has been amply demonstrated for tobacco use. Establishing a quit date, providing nicotine-replacement therapy, and linking patients to community organizations and resources are central to management. So although clinicians can help individuals directly and refer them to additional individualized services, they are complemented by the range of policies and programs that over the last 50 years have reshaped societal norms and led to a 50% decrease in smoking.

Simply conducting more randomized trials of physician counseling will not provide the answers we need. By the time health outcomes are demonstrated many years down the road, the very environments in which the behavioral counseling interventions were implemented and evaluated will have changed dramatically. Those environmental changes could lessen or obscure the previously observed intervention effects. A good example is the MRFIT trial that demonstrated that changes in control groups’ behaviors can easily obscure the benefits of effective interventions. The NIH’s enhanced engagement with the USPSTF is a positive step forward. But importantly, there needs to be a major realignment of research resources and support of multidisciplinary teams. Behavior change is only partly a medical problem, so more research into the effects of social and environmental interventions is critical. In addition, the interaction of social, environmental, and clinical interventions needs to be understood in the context of dynamic systems. That requires rethinking standards of evidence—how can the epistemology of the social and environmental sciences be integrated into USPSTF decision processes? With multiple interventions occurring simultaneously, how do we understand the combinations of interventions that will have the most salutary effect in the context of different communities? Intrinsically, this will require that the USPSTF embrace modeling more fully to capitalize on the information we do have and synthesize it in ways to have greater confidence in what really works because all the empirical studies needed to untangle all the interactions will never be conducted. The USPSTF has begun to use modeling to refine its recommendations, but fully understanding the benefits and harms of clinician counseling can only be understood in a broader context where recommendations can be tailored to different situations.

The CPSTF has partnered with the USPSTF for many years and has grappled with analogous problems in assessing community-based interventions. This partnership needs to be greatly enhanced to tackle these critical problems. The Community Guide’s work on systems, policies, and programs complements USPSTF recommendations and provides a more fulsome understanding of how to improve health. A more unified approach to community and clinical interventions can lead to more effective priority setting and resource allocation.

Although trusted primary care clinicians can influence behaviors, they need to work in systems that support their work. Reforms in the Affordable Care Act with requirements for community benefits, bundled payments to align practice with improved outcomes, and the creation of Accountable Care Organizations and Accountable Health Communities should provide the environmental synergies where a clinician’s counsel can best take root.

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