

Lessons Learned in Implementing Behavioral Screening and Intervention

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ABSTRACT

Value-based reimbursement programs are creating strong incentives for primary care settings to deliver evidence-based behavioral screening and intervention (BSI). BSI for unhealthy drinking, depression, and smoking improves outcomes and generate substantial cost savings. Addressing other behavioral risks and disorders may also reduce costs. From experience helping dozens of primary care clinics implement BSI, the author makes several recommendations: expand the healthcare team, because BSI requires ample time; hire full-time bachelor's-level health coaches selected for their personality attributes rather than prior training and experience; initially, deliver BSI for patients of one clinician, and optimize workflow, then serve patients of other clinicians; obtain buy-in from all clinicians and staff with strong support from healthcare organization and clinic leaders, data demonstrating patients' need for BSI, initial success stories, and local data documenting effectiveness; train coaches rigorously in motivational interviewing, an empathic, respectful, patient-centered, evidence-based approach to promoting healthier behaviors; provide ongoing support for coaches after 2 to 3 weeks of initial training; have receptionists ask patients to complete screening forms in waiting areas, then have medical assistants review completed screens and summon coaches to see patients with positive screens; use a data-driven quality improvement program to refine the workflow, maximizing the proportions of patients screened and of patients with positive screens who see health coaches; and adapt electronic health records to support BSI. Administering BSI in this manner can help primary care clinics make substantial progress toward achieving the quadruple aim and thriving under value-based reimbursement.

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The Changing Playing Field of Value-Based Reimbursement

Under fee-for-service reimbursement, primary care clinicians in the United States have had little financial incentive to help reduce healthcare costs. Primary care practice leaders have understandably viewed the expenses of many recommended cost-saving measures as indefensible investments, as savings would accrue to payers or purchasers, not to the primary care practices.

Value-based reimbursement is creating a new playing field. Payers are increasing expectations and incentives for primary care clinicians to deliver cost-effective care. Under the Medicare Access and CHIP Reauthorization Act, Medicare will modify each practice's reimbursement rates, starting in 2019, based on claims submitted throughout 2017. Whether primary care practices choose to participate in alternative payment models (APMs) or the Merit-based Incentive Payment System (MIPS), an increasing portion of their earnings will depend on quality metric performance and cost control.

Especially after commercial payers start to emulate Medicare and most payment is based on value, a Darwinian vicious-circle scenario will likely ensue. Better-performing and more highly compensated practices will invest more in innovation, improve their performance further, generate more profit, and entice clinicians and staff away from other practices with better working conditions and higher compensation while other practices will wither. Now is the time for primary care practices to start making bold changes if they aim to thrive under value-based reimbursement.

Table 1. Behavioral Health Issues: Prevalence, Impacts, and Effects of Screening and Intervention

	Smoking	Risky Drinking	Depression	Obesity
Prevalence (≥18 years)	20%-24%	17%-25%	7%	36%
Health impacts	Leading preventable cause of death	88,000 deaths per year; 30 years of potential life lost per death	Major cause of disability, suicide, and poor self-management of chronic diseases	Risk for cardiovascular disease, diabetes, and cancer
Healthcare costs	\$133 billion	\$25 billion	\$26 billion	\$147 billion
Other costs	\$156 billion	\$199 billion	\$57 billion	\$73 billion
Health impacts of evidence-based BSI	Screening and optimal interventions increase 1-year quit rates from 3% to 28%	Brief alcohol interventions reduce unhealthy drinking by 20%, injuries by 33%, emergency department visits by 20%, and hospital admissions by 37%	Collaborative care increases the odds of remission by 75% at 1 year; behavioral activation prevents progression of minor depression	Structured programs lead to sustained weight loss of 9 to 15 pounds and clinically significant reductions in blood pressure, blood glucose, and LDL cholesterol
Economic impacts of BSI	Third leading preventive service in favorable health and cost impacts	\$523 in healthcare savings in 1 year for primary care patients and \$4392 for disabled Medicaid patients; fourth leading preventive service in health and cost impacts	A \$522 investment generates \$3363 net savings per patient over 4 years	No known ROI

BSI indicates behavioral screening and intervention; LDL, low-density lipoprotein; ROI, return on investment. Reprinted with permission.¹

Behavioral Screening and Intervention

One recommended cost-saving practice not widely implemented by primary care practices in a robust, evidence-based manner is behavioral screening and intervention (BSI).¹ The core components of BSI are smoking screening and cessation; alcohol screening, brief intervention, and referral to treatment; and depression screening and collaborative care. These services carry Grade A or B recommendations from the United States Preventive Services Task Force, are recommended by many other authorities, and generate ample net cost savings, as shown in **Table 1**.¹ BSI can also include screening, intervention, and referral for drug use, intimate partner violence, diet, physical activity, and obesity—services that are recommended by many authorities but lack documentation of cost savings. BSI can be extended to address additional behaviors relevant to various chronic diseases, such as adherence to medication, dietary, and physical activity regimens.²

The author and colleagues have helped dozens of primary care practices implement BSI. From 2006 to 2011, with funding from the Substance Abuse and Mental Health Services Administration, they helped 33 clinical settings to conduct alcohol and drug screening for more than 100,000 patients; deliver more than 20,000 interventions; and garner high patient satisfaction. Six-month follow-up phone calls to hundreds of patients found average reductions of 20% in binge drinking and 15% in marijuana use.³ An analysis of Medicaid claims data also found average net 2-year cost savings of \$782 per patient screened.⁴ In a small pilot

project in which 3 of the 33 settings also implemented depression screening and collaborative care, depression symptom scores declined by 55% over 8 to 12 weeks.³ In other projects since then, the author and colleagues have helped other practices implement BSI with various combinations of behavioral focuses, including cardiovascular risk reduction for patients with hypertension, lipid disorders, and diabetes, as recommended by HHS' Million Hearts Initiative.

BSI would help primary care practices that join APMs excel on 15 Medicare Shared Savings Program metrics, as shown in **Table 2**, and practices that choose MIPS increase scores in 3 of 4 areas: quality metrics, cost control, and practice improvement.

For practices that wish to implement BSI, this paper will report on lessons learned from helping dozens of primary care settings implement BSI since 2006.

Lesson 1. Plan for Robust Service Delivery and Expand the Healthcare Team

The robust services required for optimal behavioral outcomes and cost savings require ample patient contact time. Optimal smoking quit rates are obtained with motivational interviewing and at least 9 one-on-one support sessions.^{5,6} Collaborative care for depression involves contact with patients over several months.⁷ Although some patients with unhealthy drinking patterns respond to a single-session brief intervention, follow-up contacts elicit greater and more sustained change.⁸

Table 2. Medicare Shared Savings Program Quality Measures for Which BSI Could Improve Performance

Metric Number	Description
ACO-5	Health promotion and education
ACO-8	All condition readmission
ACO-9	COPD/asthma readmission
ACO-10	Heart failure readmission
ACO-16	BMI screening and follow-up
ACO-17	Tobacco screening and intervention
ACO-18	Depression screening and intervention
ACO-27	Diabetes: A1C $\leq$ 9%
ACO-28	HTN: BP <140/90 mm Hg
ACO-29	Ischemic vascular disease: LDL <100 mg/dL
ACO-30	Ischemic vascular disease: aspirin use
ACO-36	Unplanned admission: diabetes
ACO-37	Unplanned admission: CHF
ACO-38	Unplanned admission: multiple chronic diseases
ACO-40	Depression remission

A1C indicates glycated hemoglobin; ACO, accountable care organization; BMI, body mass index; BP, blood pressure; BSI, behavioral screening and intervention; CHF, congestive heart failure; COPD, chronic obstructive pulmonary disease; HTN, hypertension; LDL, low-density lipoprotein.

In planning for BSI estimate patient contact time requirements. **Table 3**⁹⁻¹¹ shows such calculations based on the prevalence of smoking, unhealthy drinking, and depression in the US adult population.

Practice administrators can easily obtain population prevalence figures for their states.^{9,10} These figures should be regarded as conservative because behavioral risks and disorders are usually more prevalent in clinical populations than in general populations. As shown in Table 3, robust BSI for smoking, unhealthy drinking, and depression for an average panel of 2300 patients¹¹ would require more than 900 total hours of patient contact time per year. This calculation makes clear that busy clinicians or other staff cannot deliver robust BSI. The healthcare team must be expanded to enable delivery of the high-quality services necessary to improve outcomes and reduce costs. The calculation suggests that practices must plan to add 1 health coach for every 2 full-time primary care clinicians. A higher health coach-to-clinician ratio would be needed if coaches choose to address additional behavioral risks and disorders and chronic diseases.

Lesson 2. Configure Teams of People Who Practice at the Top of Their Capability

Some healthcare planners assume that several experts are needed for BSI: a smoking cessation specialist, an alcohol and drug counselor, a mental health professional, a dietician, and others. Such staffing is neither feasible nor advisable because it would badly fragment care. Patients need 1 trusted individual to serve as their health coach. Interestingly, there is no established healthcare profession that trains its members to provide coaching on all behavioral issues.

We have observed that individuals with a bachelor's degree—with appropriate training, support, and guidance—are the best fit for BSI coaching positions. In our initial 5-year project, bachelor's-level coaches elicited greater reductions in binge drinking than their counterparts with master's degrees in counseling or social work.⁴ Some master's-level coaches can be very effective; however, some are more difficult to train in motivational interviewing (discussed later) because of ingrained communication patterns, are uncomfortable addressing behavioral issues outside of the realm of mental health, prefer to ply their more advanced counseling skills, or expect higher compensation than bachelor's-level coaching counterparts. Consistent with the concept of having staff serve at the top of their capabilities and licenses, counselors and social workers with a master's degree are best utilized as on-site referral resources for counseling. If coaches can make personal face-to-face introductions to on-site counselors rather than referrals to remote agencies, referrals for counseling tend to be more successful.

In some situations, there may be advantages to hiring licensed professionals to administer BSI. In small practices, licensed professionals

Table 3. Contact Time for BSI for a Primary Care Panel of 2300 Patients*

	Condition			Total Hours
	Smoking	Unhealthy Drinking	Major Depression	
US adult prevalence	18%	25%	7%	
Patients with the condition	414	575	161	
Average number of 15-minute sessions per patient	3	2	8	
Hours of contact time per patient	0.75	0.50	2.00	
Total hours of contact time	311	288	322	920

BSI indicates behavioral screening and intervention.

*For each condition, the number of patients with the condition was obtained by multiplying the prevalence by 2300, the average primary care panel size.¹¹ Average numbers of sessions were obtained from observations of previous programs. Hours of contact time were obtained by multiplying the number of 15-minute sessions by 0.25 hours. Total hours of contact time for each condition were calculated by multiplying the number of patients with the condition by the hours of contact time per patient.

Adapted from references 9 and 10.

may be able to serve as part-time coaches and counselors. Medicare, some Medicaid programs, and some commercial payers reimburse for some components of BSI only when delivered by licensed individuals.

Practices with certain payer mixes may benefit from conducting financial simulations to help guide decisions on coach hiring requirements. Such simulations should account for coming declines in fee-for-service reimbursement and increases in value-based reimbursement.

Lesson 3. Emphasize Efficient and Sustainable Workflow

BSI is not reserved for scheduled preventive visits, because many patients do not schedule such visits. In the outpatient settings where BSI works best, receptionists are prompted by electronic health records (EHRs) to ask patients to complete written screening forms each year, perhaps along with other annual forms. Medical assistants (MAs) review the completed screening forms and summon coaches to see patients with positive screens in exam rooms.

In the exam rooms, clinicians always have priority with patients. If clinicians are running behind, coaches can see patients first and seek the patients' permission to remain if clinicians interrupt. If clinicians are on time, MAs typically ask patients to remain and meet with coaches afterward. If patients cannot stay, or if coaches are busy with another patient, the EHR is flagged to remind the MAs that patients need to see a coach at their next visit.

How receptionists and MAs ask patients to complete screening forms and see coaches is critical. All should be instructed to use scripts framing the process as an important routine preventive service that clinicians want and expect their patients to receive.

Clinicians should not serve a critical role in the workflow, such as referring patients to coaches. Many clinicians do poorly with routine, in part because they focus on addressing patients' other needs, generating documentation, and completing other administrative tasks in short time periods. Consistent with configuring teams to work at the top of their capabilities, clinicians are best reserved for delivering pharmacotherapy for depression and nicotine, alcohol, or opioid dependence; for reinforcing patients' work with coaches; and for stepping in when patients' needs surpass coaches' training, such as further assessing patients who indicate suicidal ideation on depression assessment questionnaires.

Lesson 4. Select Coaches Well

The best coaches have high emotional intelligence, an engaging manner, therapeutic attitudes, enthusiasm for their work, strong abilities to work in teams, and bachelor's degrees. Prior healthcare training and experience are less important. Ideally, coaches represent the same racial and ethnic backgrounds as their patients and, in some practices, speak multiple languages. Unfortunately, in many communities, it is difficult to find such coach candidates with bachelor's degrees. Fortunately, BSI can be also delivered well by high school graduates who were qualified to attend college but did not have the opportunity. BSI programs often attain suboptimal results when coaches are selected from current staff rather than wider applicant pools.

Lesson 5. Hire Full-Time Coaches

For BSI to optimize outcomes and cost savings across populations of patients, coaches must be present at all times during workdays when patients are completing screens, because attempts to telephone patients with positive screens who were not seen face-to-face in clinical settings usually fail. When coaches serve part time in other roles, those roles tend to dominate their time, because BSI is rarely urgent. In addition, having full-time coaches enables more consistent routines and better performance by receptionists and MAs at distributing screens and summoning coaches.

Lesson 6. Start Small

The wisdom behind starting small, working out kinks, and then expanding is incontrovertible, but understanding how to start small is very important. Some healthcare organizations start implementing BSI one behavioral issue at a time, perhaps avoiding new hires until there is certainty that BSI can work. Even if the coach is a new hire, this approach is usually not optimal. One problem is that some clinicians and staff perceive only a tentative commitment to BSI by the leadership. Another problem is that the decisions made to optimize the effectiveness of a BSI program with limited scope make it more difficult to expand the scope later. For example, a program that starts addressing only depression may hire a coach with a special interest in mental health, but that coach may be uncomfortable expanding into smoking, alcohol, and other behavioral issues despite additional training.

There are other reasons to address multiple behavioral issues at the inception of a BSI program. Many patients have interrelated behavioral issues. For example, a patient who quits smoking is more likely to relapse if depression and frequent alcohol intoxication are not addressed. Another reason is that clinician and staff support for BSI tends to be stronger when it addresses multiple issues. Some clinicians may not be supportive of a program that addresses only alcohol and drugs but may be glad to support a program that also addresses smoking and depression. A third reason is that patients respond more favorably to programs that address multiple issues. Although some may feel singled out to be screened for 1 or 2 sensitive issues, screening forms and coaches that mention sensitive issues (eg, substance use and depression) at the same time as other general health issues (eg, fruit and vegetable consumption and smoking) engender more accurate reporting and more cooperation. In addition, for patients with multiple behavioral risks or disorders, success in addressing one issue can often engender successes with other issues.

We recommend starting with a robust BSI program that addresses at least smoking, alcohol, and depression, the 3 issues for which return on investment is well documented. Brief feedback and referrals can be suggested for patients with unhealthy diets, physical inactivity, and obesity.

The recommended way to start small in a primary care setting is to begin with 1 coach who addresses several behavioral issues for the patients of 1 supportive clinician. That clinician ideally will have ideas and patience for working out any glitches, and then patients of other clinicians can be served.

In healthcare systems with multiple primary care sites, it is best to start with at least 4 coaches at 4 sites. Advantages include support and sharing of best practices among sites and coaches, economy of scale in training and start-up, and higher odds of success for at least some of the sites.

Lesson 7. Obtain Buy-In From All Clinicians and Staff

For BSI to succeed, all clinicians and staff must effectively serve the roles previously described (Lesson 3). To maximize their cooperation, they should understand the purpose of the program; the rationale for anticipating patient satisfaction, improved outcomes, and lower costs; and the importance of the program to the organization's overall clinical and financial goals. Leaders of the organization and the setting must make clear to clinicians and staff their commitment to succeed and their expectation that all will do their part.

In the first several months of the program, internal marketing at each setting can help cement support. Coaches should share with clinicians and staff success stories in ways that respect patient confidentiality. Within the first month, leaders should publicize aggregate screening and assessment results, which will show patients' need for BSI. And within several months, leaders can share data on the effectiveness of the program, as described later (Lesson 10).

Lesson 8. Motivational Interviewing Should Be the Lynchpin of All Coaching

Motivational interviewing is an empathic, respectful, collaborative approach to promoting healthy behaviors. The interviewers share information and advice sparingly and only when patients will be receptive. They elicit less defensiveness and more change by emphasizing patient autonomy rather than coercing and arguing. They help patients consider the advantages and disadvantages of change in light of their goals and values, and they create opportunities for patients to make and strengthen their own arguments for change. They help patients who are committed to change design and refine behavior change plans that help them meet their own goals.¹²

A growing body of research suggests that motivational interviewing is more effective than other approaches to eliciting healthier behaviors.^{5,13} An advantage of motivational interviewing over other approaches to promoting change is its inherent patient-centeredness and cultural sensitivity. Some healthcare leaders and clinicians hesitate to implement BSI for sensitive topics because they fear that patients will be alienated. With motivational interviewing, even patients who decided against change at their initial visit expressed satisfaction with BSI.³

Lesson 9. Coaches Must Be Well Trained and Well Supported

Motivational interviewing and other aspects of BSI require intensive training plus ongoing practice and feedback. We have achieved the best results with an initial 2 to 3 weeks of full-time training followed by weekly case conferences and regular feedback to coaches via audiotaped sessions with patients, with their consent. Some healthcare leaders recoil at such training requirements. However, under-trained coaches have lower confidence, see fewer patients, more frequently annoy or anger patients, and generate disillusionment by clinicians and staff. Relative to the duration of other clinicians' and staff members' training and the value coaches will generate, an initial training of 2 to 3 weeks and some additional development activities over several months are worth the investment.

Lesson 10. Faithful Continuous Quality Improvement Ensures Success

As for most new healthcare programs, a rapid-cycle quality-improvement approach bolsters and accelerates success. Key process metrics are (1) the proportion of eligible patients who complete screening questionnaires and (2) the proportion of patients with positive screens who see the coach at that visit. Most settings can achieve 90% or better on both metrics with 5 to 10 Plan-Do-Study-Act (PDSA) cycles over as many days.³ Slower PDSA cycles prolong dysfunction and generate disillusionment. Behavioral outcome metrics can be tracked so that coaches' effectiveness in improving behavioral outcomes can be compared with that of other coaches and with outcomes obtained in prior studies. Multiplying these process and outcome metrics together can indicate the extent to which settings are attaining maximal possible improvement in population health.¹

Lesson 11. Health Information Technology Should Facilitate BSI

At a minimum, EHRs should score and store completed screens and assessments, offer coaches fill-in-the-blank templates to facilitate documentation, track key process and outcome variables, and generate real-time reports for internal and external quality reporting and population health management. Desirable add-ons include internet-based screening and assessment surveys that patients complete at home before appointments, kiosks or mobile devices for administering screens and assessment in waiting areas, real-time guidance for coaches, automatically printed session summaries for patients, and systems that proactively provide patients with reminders, check-in opportunities, and encouragement by email or text message. Until such technology is available, written materials can help guide coaching and maximize fidelity.

CONCLUSIONS

By improving performance on various quality metrics and reducing costs, robust BSI could help healthcare settings thrive under value-based reimbursement. The previous success of BSI in a variety of

healthcare settings suggests that organizations not undertake pilot projects with the intent of determining whether BSI can be effective in those settings. Healthcare organizations that aim to thrive under value-based reimbursement should make and enunciate an unwavering commitment to effective BSI, expand their healthcare teams with well-trained and well-supported coaches, consider lessons learned from prior implementations in planning an initial roll-out, optimize processes during initial implementation at several initial settings, and rapidly expand to other settings.

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