

A Team Approach to Systematic Behavioral Screening and Intervention

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Several federal agencies and other authorities recommend that primary care providers conduct systematic tobacco, alcohol, depression, and obesity screening and intervention¹⁻⁸; henceforth, behavioral screening and intervention (BSI). Dozens of randomized controlled trials and meta-analyses have demonstrated the efficacy of these services. Most such studies addressed 1 behavioral issue, involved selected consenting patients, and delivered services with more resources and tighter quality controls than most clinical settings could typically offer. Because of such studies, these services carry Grade A or B ratings from the US Preventive Services Task Force (USPSTF) and are consequently being advanced by the Affordable Care Act (ACA). Indeed, BSI could help reduce the \$500 billion annual economic loss from tobacco use, alcohol use, and depression,^{9,10} as for every dollar spent, \$4 is saved in 1 year through BSI for alcohol,⁸ \$6.50 in 4 years for depression,¹¹ and likely more for tobacco.¹²

BSI starts with a few screening questions to identify patients who likely have behavioral risks or disorders.¹ Positive screens require further assessment, which guides further service delivery, as per prior research. Low-risk drinkers or tobacco and alcohol abstainers receive reinforcement. Tobacco users and high-risk drinkers receive on-site interventions and ongoing support. Nicotine-dependent patients are offered pharmacotherapy. Patients with possible alcohol dependence, and patients with the desire but not the ability to modify tobacco or alcohol use, are referred for specialty care or other resources. In addition to usual pharmacotherapy and/or counseling, depressed patients receive collaborative care, in which typically a nurse or mental health professional coordinates management, promotes patient engagement in treatment during and in between visits, tracks depression symptom scores, and alerts treatment professionals to reconsider treatment plans if scores are not improving as expected.¹³ Collaborative care can also include behavioral activation, in which patients are engaged in behaviors that ameliorate depression symptoms.¹⁴

Two major sets of barriers impede BSI implementation. Financial barriers are waning, as fee-for-service reimbursement for BSI is expanding under the ACA, and shared savings models are taking hold. Staff time is a more stubborn barrier. A primary care clinician would need 7.4

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Objectives: Unhealthy behaviors are responsible for most chronic disease, ample healthcare costs, and around 40% of deaths. This study assessed patient satisfaction and behavioral outcomes for a program that enables healthcare settings to deliver evidence-based, cost-saving behavioral screening and intervention (BSI) services, as recommended by the US Preventive Services Task Force and others.

Study Design: Pre-post program evaluation.

Methods: Thirty-one diverse primary care clinics and 2 other sites participated. Over 110,000 patients completed multibehavioral screening questionnaires. Those with positive alcohol or drug screens met with dedicated, on-site health educators for further assessment, and then received either reinforcement, brief intervention, or referral. Over 300 patients completed satisfaction questionnaires during year 3 of the program. A pseudo-randomly selected group of 675 patients participated in a 6-month follow-up telephone interview. In addition, for a short time in a pilot project at 3 clinics, 29 patients received depression screening, collaborative care, and behavioral activation, and 22 completed a 3-month follow-up telephone interview.

Results: Mean patient satisfaction scores for all services exceeded 4.2 on a 5-point scale. Over 6 months, binge drinking episodes declined by over 20% for most subgroups. Recent marijuana use decreased by 15%. Depression symptom scores decreased by 55%.

Conclusions: With intensive training and ongoing support, cost-efficient paraprofessionals can deliver effective alcohol, drug, and depression screening and intervention services in busy healthcare settings. The approach holds promise for systematically addressing on a population-wide basis a variety of important behavioral health determinants and reducing related healthcare costs.

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For author information and disclosures, see end of text.

Take-Away Points

This article describes a program that successfully delivers evidence-based, cost-saving alcohol, drug, and depression screening and intervention services in primary care settings.

- Ample research has documented the effectiveness of these services and their return on investment, yet they are seldom delivered, largely because of provider and staff time pressures.
- Trained and supported, cost-efficient paraprofessionals can deliver these services, elicit high patient satisfaction, and attain substantial declines in risky drinking, illicit drug use, and depressive symptoms.
- Over time, clinical settings were able to modify work flow so that most patients received recommended services.

hours every work day to deliver all recommended preventive services, including BSI, leaving little time to address acute concerns and chronic illness.¹⁵ A potential solution is team-based care. Indeed, if the nation's undersized primary care workforce will be able to serve the growing numbers of insured, elderly, and chronically ill patients, then primary care clinicians may need to delegate preventive services to other team members.¹⁶

The US Substance Abuse and Mental Health Services Administration (SAMHSA) administers grants for demonstration projects to advance delivery of its alcohol and drug Screening, Brief Intervention, and Referral to Treatment (SBIRT) services. Successful projects develop a feasible service delivery model, serve a large number of patients, demonstrate patient satisfaction, and document reductions in substance use. Between 2006 and 2011, with SAMHSA grant funding, the Wisconsin Initiative to Promote Healthy Lifestyles (WIPHL) helped 33 clinical sites deliver SBIRT by expanding their healthcare teams with trained and supported "health educators" of varied backgrounds. WIPHL obtained separate funding to support delivery of depression screening and collaborative care for a short time at 3 sites. This paper reports on service delivery, patient satisfaction, and pre-/postintervention changes in behavioral outcome measures at the participating sites. The intent of this paper is to inform the design and implementation of programs that are intended to systematically identify and address multiple behavioral issues among large numbers of unselected patients, respect healthcare provider time constraints, help clinical settings meet several USPSTF recommendations, and serve the triple aim of improved health, patient experience, and cost control.

METHODS

Administration

The Wisconsin Department of Health Services administered the project, contracted with the University of Wis-

consin (UW) School of Medicine and Public Health and the Wisconsin Medical Society to administer a coordinating center, and contracted with the UW Population Health Institute to conduct program evaluation. SAMHSA provided funding and direction.

Sites

The Coordinating Center recruited sites through networking and selected them for their diversity in geographic location, population density (urban, suburban, and rural), payer mix, and their readiness to take advantage of the program. Sites were launched in waves to fill 18 slots. Additional sites were recruited as vacancies occurred. Initially, only primary care clinics were recruited. In later years, an emergency department (ED) and a hospital were added.

Site Preparation and Support

Interested sites completed a checklist to assess readiness and guide preparations. Sites instituted annual, universal screening for their entire patient population or for a subpopulation defined by provider or visit purpose. At most sites, receptionists distributed brief screening questionnaires. Sites were encouraged to include questions on multiple behavioral risks, in part to enhance acceptance of alcohol and drug questions.¹⁷ Staff members who checked vital signs reviewed questionnaire responses and referred patients with positive alcohol or drug screens to health educators. Consistent with SAMHSA requirements, health educators primarily conducted alcohol and drug assessment, then education, intervention, or referral as appropriate; they provided brief feedback and referral for other behavioral risks. They reported back to providers, who were encouraged to provide additional support and pharmacotherapy.

Sites were encouraged initially to identify champions, establish a quality improvement team with representatives from various staff segments, and design an initial work flow. The coordinating center provided consultation on best practices. Sites were encouraged to engage in monthly plan-do-study-act cycles to optimize 2 metrics: (1) the proportion of eligible patients who completed screens and (2) the proportion of patients with positive alcohol or drug screens who completed health educator-administered brief assessments.

Health Educator Hiring

The coordinating center guided each clinical site in hiring a health educator—a term that carries no legal impli-

■ **Table 1. Alcohol, Drug, and Depression Screening Questions**

1. Think of the last time you had more than (men: 4 drinks; women: 3 drinks) in a day or night. Was that within the past 3 months?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
2. In the last year, have you ever drunk alcohol or used drugs more than you meant to?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
3. In the last year, have you felt you wanted or needed to cut down on your drinking or drug use?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
4. In the last 12 months, did you smoke pot, use another street drug, or use a prescription painkiller, stimulant, or sedative for a non-medical reason?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
5. Over the past 2 weeks, have you been bothered by having little interest or pleasure in doing things?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
6. Over the past 2 weeks, have you been bothered by feeling down, depressed, or hopeless?	<input type="checkbox"/> No	<input type="checkbox"/> Yes

cations in Wisconsin. Of the 44 health educators hired, 9 were master’s-level counselors or social workers, 33 held bachelor’s degrees, and 2 were high school graduates with special language or cross-cultural skills. Seven health educators had a bachelor’s degree in health education, 4 were certified health education specialists, and 1 was a certified chemical dependency counselor.

Health Educator Training and Support

One week of distance training and a subsequent week of face-to-face training emphasized alcohol and drug screening, SBIRT, motivational interviewing, and cultural competence. Learning activities included interactive lectures, discussions, demonstrations, and role-play exercises, sometimes with standardized patients. Health educators had to pass a written examination and skills/performance assessment. At their clinical sites, they received ongoing support through weekly conference calls and quarterly retreats. Monthly, with patients’ written consent, health educators submitted audiotapes of sessions and received structured feedback from trainers, who completed a modified skills checklist.¹⁸ Custom software guided health educators in realtime in delivering high-fidelity, evidence-based services. As they saw patients, health educators entered data, which allowed tracking of service delivery.

Clinical Protocols

As shown in **Table 1**, the alcohol and drug screen included 3 validated questions on substance use^{5,19} and a direct question about illicit drug use or nonmedical use of prescription drugs. Questionnaires were available in several languages.

For patients with positive screens, health educators administered the Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST)²⁰ plus 3 questions on quantity and frequency of alcohol use.²¹ Based on their responses, patients’ substance use was classified as low

risk, risky, harmful, or likely dependent. Health educators asked additional questions as required by SAMHSA and the Governmental Performance Results Act.

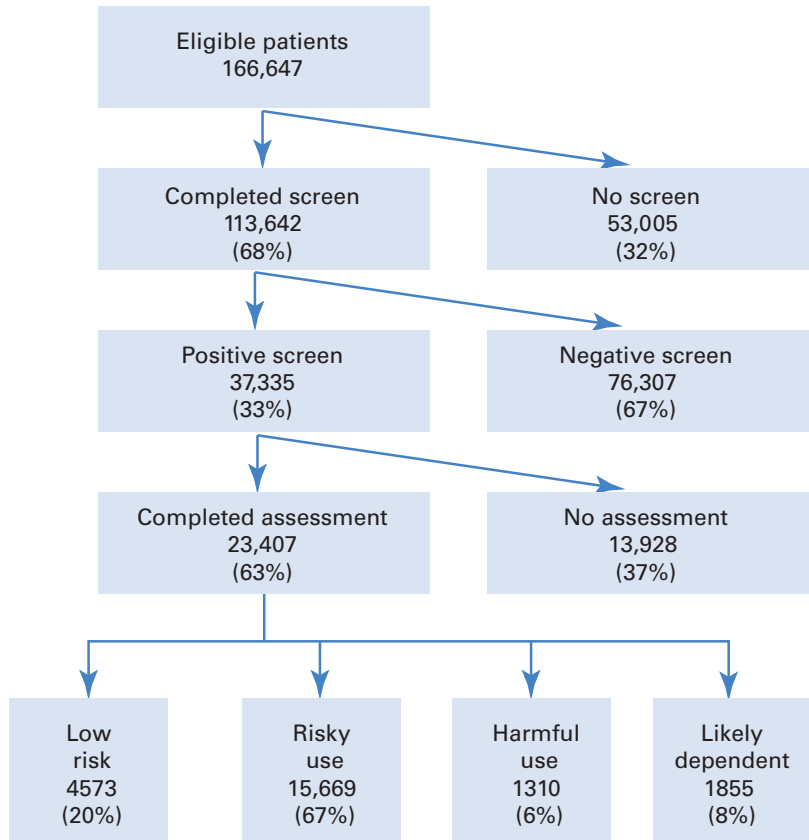
For low-risk patients, health educators affirmed and reinforced low-risk behaviors. For patients with harmful or risky use, interventions ranged from brief feedback, recommendation, and negotiation to motivational interviewing.²² Health educators varied their interventions in response to severity of risk or disorder, patient preference and response, and time constraints. For likely dependent patients, health educators recommended referral for specialized assessment or treatment. Most educators referred interested patients to a treatment liaison who was based at the coordinating center and gathered additional information by phone, provided encouragement and support, and negotiated referrals considering availability, financing, and patients’ needs and preferences. Grant funds were available to fund treatment for patients without other means.

Program Evaluation

Evaluation included follow-up telephone interviews 5 to 8 months after initial service delivery. Subjects included a randomly selected sample of patients who received interventions or referrals. The chief purpose of the interviews was to assess for changes in behavior. Questions on substance use were identical to those asked by health educators. Of 1099 patients eligible to participate, 874 (80%) provided consent, and 675 participated (77% of those consenting).

During the third project year, health educators were asked to distribute “patient satisfaction” surveys to all patients in 1 month. Patients anonymously submitted the surveys, which were based on the 4-item task subscale of the well-validated Likert-type Working Alliance Inventory,²³ which assesses the strength of psychotherapeutic relationships. The items, which originally focused on “problems” and “change,” were modified to focus on al-

■ **Figure 1.** Patient Flow Through Screening and Assessment



cohol and drug use. The impact of these modifications on item validity is unknown.

Depression Pilot Study

Of the 33 participating clinics, 3 with bachelor’s-level health educators added the Patient Health Questionnaire-2 (PHQ-2) depression screen²⁴ (Table 1) to their written questionnaires, and delivered BSI for depression in up to 4 sessions per patient. Their health educators attended 3 days of additional training involving lectures, role-play exercises, feedback, and coaching. For patients with positive screens, health educators administered the PHQ-9.²⁵ They referred patients with possible suicidality or major depressive episodes for further assessment and possible pharmacotherapy and/or psychotherapy. For patients with PHQ-9 scores of 10 or greater, they delivered collaborative care as guided by a workbook derived from protocols from several prior randomized controlled trials. Such care included education on etiology, treatment modalities, and treatment effectiveness, and motivational interventions to maximize adherence to pharmacotherapy and psychotherapy and to engage patients in behaviors that lift depressive symptoms, including exercise, sleep hygiene, socializing, enjoyable activities,

healthy nutrition, and relaxation. At each subsequent visit, patients responded to the PHQ-9 and anonymously completed a brief satisfaction questionnaire. During 3-month follow-up telephone interviews, research assistants readministered the PHQ-9 and the satisfaction questionnaire.

Human Subjects

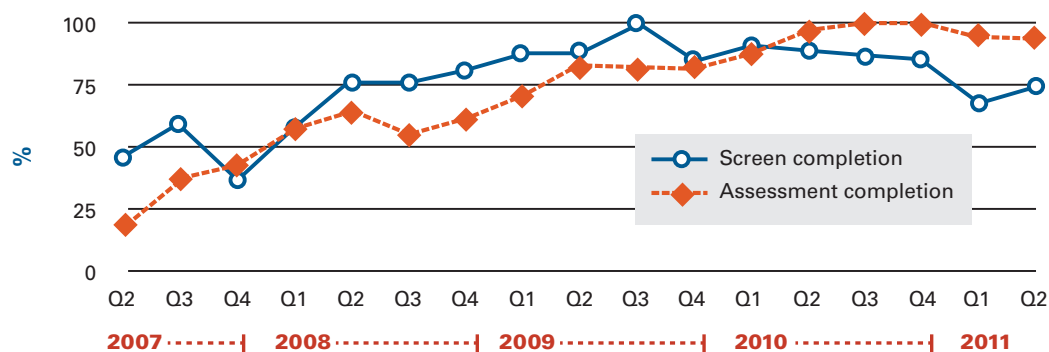
The University of Wisconsin Human Subjects Committee exempted the main project from its purview, because it involved delivering evidence-based services and limited program evaluation to federal requirements. Nevertheless, health educators informed patients of the risks and benefits of participating, and patients gave written consent to participate in 6-month follow-up interviews. The Committee approved the research protocol for the depression pilot study.

RESULTS

Clinical Site Participation

Of 33 participating sites, 9 were located in or near Milwaukee, 10 in or near cities with populations of 30,000 to 250,000, and 14 in rural areas. The sites were 17 large commercial primary care or multispecialty groups, 6 federally

■ **Figure 2.** Screen and Assessment Completion Over Time



"Screen completion" was calculated as (patients who completed alcohol/drug screens) / (patients who were eligible for screening as determined by clinical sites).

"Assessment completion" was calculated as (patients who completed health educator-administered brief alcohol/drug assessments) / (patients with positive alcohol/drug screens).

Q1, Q2, Q3, and Q4 refer to 3-month time periods of each year.

qualified health centers or look-alikes, 5 independent commercial primary care sites, 2 tribal health centers, 1 health department clinic, 1 hospital-based ED, and 1 hospital trauma center, plus other inpatient units. Over the course of 51 months, average duration of participation was 25 months.

Patient Participation

Between March 2007 and June 2011, 113,642 patients completed screens. Those screened were 63% female, 58% white and non-Hispanic, 15% Hispanic, 14% black or African American, 11% Native American, 1% Pacific Islander, and 2% multiple races. Of those, 15% were aged 18 to 24 years; 23% were aged 25 to 35 years; 50% were aged 36 to 64 years; and 12% were 65 years or older.

Patient Flow

Figure 1 shows the flow of patients through the clinical process and the final categorization of patients' substance use. Throughout the project, 68% of patients who were eligible completed a screen, and 63% of those with positive brief screens saw a health educator and completed a brief assessment. A plot of these metrics over time, as reported by health educators, is shown in Figure 2. A linear regression confirmed significant improvements over time for quarterly completion of screens ($P < .001$) and assessments ($P < .001$). Metrics declined toward the end of the project, when new clinics replaced experienced clinics that had become self-sufficient and exited the grant-funded program.

Alcohol/Drug Assessment Results

Figure 1 also shows the results of the brief assessments for patients who completed them. Assuming similarity between screened and unscreened patients, and between pa-

tients with positive screens who did and did not undergo brief assessment, the estimated population prevalence of abstinence or low-risk use was 73%; risky use, 22%; harmful use, 2%; and likely dependence, 3%.

Alcohol/Drug Intervention and Referral Services

All patients in the risky and harmful use categories received a brief intervention. All likely dependent patients were encouraged to accept a referral for specialized assessment or treatment. Of the 1855 likely dependent patients, 452 (24%) expressed initial interest in referral. Health educators' and the treatment liaison's records showed that 183 (10%) entered treatment, though data capture may have been incomplete.

Substance Use Outcomes

We compared 675 patients' initial, face-to-face self-reports to health educators with telephone self-reports provided 6 months later to evaluation staff. Results are shown in Table 2. Reductions in risky drinking, mean number of drinks per drinking day, and maximal number of drinks over the prior 3 months exceeded 20% and were consistent across most subgroups. Patients over age 65 years and patients with Medicare had lower base rates, and manifested small reductions. Bachelor's-level health educators elicited greater reductions than those with master's degrees ($P < .05$ for all 3 alcohol measures).

Among those who screened positive for substance use, reports of past 3-month marijuana use declined from 28% at baseline to 23% at follow-up ($P < .001$). Reports of past 30-day marijuana use declined from 23% to 19% ($P < .001$). The low rates of other drug use precluded assessments of intervention effectiveness.

■ **Table 2.** Baseline and 6-Month Follow-up Data on Alcohol Use in the Prior 3 Months

Patients	N	Proportion Exceeding Low-risk Limits			Mean Number of Drinks on a Typical Day			Mean Maximum Number of Drinks in a Day		
		Baseline, %	6 Months	Relative Change	Baseline	6 Months	Relative Change	Baseline	6 Months	Relative Change
All	662	86	67%	-22% ^c	4.06	3.27	-19% ^c	7.52	5.67	-25% ^c
By age group										
18-24 years	122	84	62%	-25% ^c	3.71	2.89	-22% ^a	7.25	5.48	-24% ^b
25-35 years	201	84	68%	-20% ^c	4.66	3.64	-22% ^b	8.26	6.31	-24% ^c
36-64 years	294	86	66%	-23% ^c	4.09	3.33	-19% ^c	7.70	5.66	-26% ^c
≥65 years	45	98	87%	-11% ^a	2.18	2.29	+5%	3.73	3.36	-10%
By gender										
Females	388	84	64%	-24% ^c	3.52	2.76	-22% ^c	6.33	4.61	-27% ^c
Males	274	88	72%	-18% ^c	4.82	4.00	-17% ^b	9.20	7.16	-22% ^c
By insurance										
Commercial	219	96	77%	-20% ^c	3.62	3.34	-8%	7.84	6.16	-21% ^c
Medicaid	161	71	55%	-23% ^c	4.10	3.01	-27% ^c	6.84	4.78	-30% ^c
Medicare	51	84	67%	-21% ^c	2.49	2.35	-6%	4.43	3.55	-20% ^a
None	142	85	63%	-26% ^c	5.11	3.68	-28% ^c	8.85	6.32	-29% ^c
Other/unknown	89	88	73%	-17% ^b	4.30	3.46	-20%	7.60	6.22	-18%
By race/ethnicity										
Black	159	65	48%	-26% ^c	3.47	2.72	-22% ^a	5.79	4.24	-27% ^b
Native American	28	75	54%	-29% ^b	6.18	4.29	-31% ^a	8.71	6.36	-27% ^a
Other/unknown	16	100	81%	-19%	5.68	3.69	-35%	8.75	5.63	-36% ^a
White, Hispanic	44	93	55%	-41%	5.61	3.32	-41% ^b	8.84	5.43	-39% ^c
White, non-Hisp.	415	93	76%	-18% ^c	3.92	3.40	-13% ^b	7.91	6.20	-22% ^c
By HE degree										
Bachelor's	456	87	66%	-24% ^c	4.23	3.30	-22% ^c	7.64	5.58	-27% ^c
Master's	206	83	70%	-16% ^c	3.70	3.21	-13% ^a	7.26	5.85	-19% ^c

HE indicates health educator.
^a*P* < .05.
^b*P* < .01.
^c*P* < .001.

Accuracy of Self-Report

To assess for possible differences in the accuracy of self-reports of substance use to health educators at baseline and to evaluators at 6-month follow-up, we compared self-reports of lifetime substance use. Of the patients who provided complete information, 7 (1%) of 673 gave disparate reports of lifetime alcohol use, 4 reported use only to the evaluator, and 3 only to the health educator. Of the 128 with disparate reports of marijuana use, 85 (66%) reported use only to the evaluator, and 43 (34%) only to the health educator (*P* < .0001). Of the 79 with disparate reports of cocaine use, 64 (68%) reported use only to the evaluator, and 25 (32%) only to the health educator (*P* < .001).

Patient Satisfaction

In year 3 of the project, 346 patients rated each of the 4 adapted Working Alliance Inventory task subscale items on a 1-to-5 integer scale.²³ Higher scores indicated stronger therapeutic relationships between patients and health educators. Mean scores for each item ranged from 4.24 to 4.45.

Depression Pilot Study

At 3 clinics, 1356 patients underwent screening. Of that total, 300 (22%) had a positive PHQ-2 screen; 158 (53%) of the 300 with a positive PHQ-2 screen completed a PHQ-9; 68 (43%) of the 158 respondents had PHQ-9 scores of 10 or greater; and 29 (43% of the 68 who were eligible) consented

to participate. Participant age ranged from 20 to 68 years, with a median of 41 years. About three-fourths (76%) of participants were female, and 97% were white. Five (17%) of the participants were newly diagnosed with depression.

Twenty-two (76%) of the 29 subjects participated in the 3-month follow-up phone interview. Over 8 to 12 weeks, those patients had 2 to 4 sessions with their health educators. At patients' last visits, mean satisfaction score was 4.9; at 3-month follow-up, 4.4. Patients reported to health educators that they especially appreciated learning how to help themselves with their depression. Mean PHQ-9 scores declined by 55%, from 17.1 to 7.7 ($P < .0001$). Those patients already being treated for depression had no change in medication regimens through the study period. Thirteen (59%) of 22 patients met successful treatment outcome criteria—PHQ-9 score reductions of 5 points, and final scores of less than 10.²⁶

DISCUSSION

This paper reports on patient satisfaction and behavioral outcomes for a large demonstration project aiming to expand delivery of evidence-based, cost-saving alcohol and drug screening and intervention services in health-care settings throughout Wisconsin, chiefly in primary care settings. A pilot study also assessed the feasibility of integrating screening and collaborative care for depression into alcohol and drug services. Key features of the project were involvement of diverse healthcare sites; evidence-based screening and assessment instruments and protocols; service delivery by full-time, dedicated, rigorously trained, supported, and computer-guided paraprofessionals; and a quality improvement framework to optimize work flow.

The large proportion of positive alcohol and drug screens and assessments demonstrated need for the services. Responses to 4 items of the Working Alliance Inventory indicated patient satisfaction with BSI as delivered by the health educators.

Sites delivering BSI must attend to work flow issues, because failure to deliver appropriate services to patients with positive screens or assessments could engender poor outcomes and medicolegal risk. Across all sites over time, there was substantial gain in the proportion of eligible patients who completed screens and assessments. Improvements came as some sites learned through quality improvement cycles, as successful sites could serve as models for other sites, as less effective sites were replaced with more effective ones, and as the coordinating center more effectively promoted best

practices, recruited suitable sites, and better prepared them to participate.

The 20% decline in risky drinking found at 6-month follow-up is typical of prior controlled studies and has been associated with reductions of 20% in ED visits, 37% in hospitalizations, 46% in arrests, and 50% in vehicle crashes.⁸ Since WIPHL attained greater than 20% reductions in risky drinking in most subgroups, WIPHL likely had substantial favorable impacts on health outcomes, costs, and public safety. Analysis of impacts on healthcare costs is in progress.

A potential limitation of our findings is the sole use of self-report to measure changes in substance use. The limitation is mitigated by ample prior literature showing the validity of self-report and this project's finding that self-report of substance use was greater during confidential follow-up interviews with evaluators than during initial assessment face-to-face interviews with health educators. Thus, patients' decreases in substance use may have been underestimated.

A concerning finding was that alcohol interventions were less effective for elderly patients than younger patients. One reason that few risky drinkers became low-risk drinkers might have been the use of a stringent definition of risky drinking for elders: no more than 1 drink per day.²⁷ Nonetheless, the potency of alcohol interventions for the elderly might be improved with specialized intervention protocols that address common, alcohol-related health risks.²⁸

Another concerning finding was the low proportion of substance-dependent patients who were documented as having started treatment. Barriers to effective alcohol and drug treatment referrals are well known.²⁹ Perhaps offering a non-abstinence-based treatment approach and/or pharmacotherapy in primary care settings would better serve many dependent patients who do not obtain specialized treatment.

In a small pilot study, 3 clinics and their bachelor's-level health educators without prior mental health experience delivered collaborative care and behavioral activation services to depressed patients as they continued to deliver BSI for alcohol and drugs. In most prior studies, behavioral activation and collaborative care were delivered by nurses or mental health professionals.¹³ This project suggests that such services can be delivered by protocol-guided bachelor's-level paraprofessionals, as patients indicated satisfaction with the services, and there was a 55% reduction in depression symptom scores over an 8-to-12-week period.

A retrospective analysis suggested that bachelor's-level health educators elicited greater reductions in risky

drinking than their master's-level counterparts, though confounding factors cannot be ruled out. If this finding is valid, possible reasons—observed informally—are that individuals without prior clinical experience and established clinical behaviors can more easily learn motivational interviewing and deliver it with greater fidelity, and that some master's-level individuals were dissatisfied with following protocols intended to elicit narrow behavior changes rather than deliver broader counseling services. If future study confirms that bachelor's-level paraprofessionals attain behavioral outcomes at least as good as advanced professionals, then providers will be able to employ a low-cost workforce to deliver BSI, given supportive licensure and reimbursement policy.

Prior studies suggest that initial written behavioral screens, subsequent brief counseling, and referral to known resources are best practices for delivering behavioral screening and intervention in primary care settings.³⁰ This study's findings are consistent with that prior research, and further suggest that expanding primary care teams with dedicated, protocol-guided, bachelor's-level paraprofessionals holds promise for enabling the cost-efficient, systematic delivery of BSI for a variety of behavioral risks and conditions in service to the triple aim.³¹

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Authorship Information: Concept and design (RLB, DPM, JBA); acquisition of data (LAS, SML, KB); analysis and interpretation of data (RLB, DPM, CTP, SML, KB); drafting of the manuscript (RLB, RML); critical revision of the manuscript for important intellectual content (RLB, DPM, CTP, MDC, RML); statistical analysis (DPM, SML); provision of study materials or patients (MDC); obtaining funding (RLB, JBA, LAS, SBC); administrative, technical, or logistic support (RLB, JBA, LAS, CTP, MDC, RML, SBC); supervision (RLB, DPM, LAS, RML, SBC); training and oversight of health educators administering behavioral intervention for depression (MDC, KB).

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