

State of SBIRT 2003 – 2012: Review and Discussion of SAMHSA Funded SBIRT Initiatives

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The State of SBIRT: 2003–2012

Review and Discussion of SAMHSA-Funded SBIRT Initiatives



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1.0 Introduction

Unhealthy and unsafe alcohol useⁱ and drug use is a major preventable public health problem resulting in more than 100,000 deaths each yearⁱⁱ and is costing society more than \$600 billion annually.ⁱⁱⁱ The effects of unhealthy and unsafe alcohol and drug use have far-reaching implications not only for the individual, but also for the family, workplace, community, and the health care system.

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a comprehensive, integrated, public health approach to delivering early intervention and treatment services for persons with substance use disorders and for persons at risk for developing these disorders. Primary care centers, hospital emergency rooms, trauma centers, and other community settings provide opportunities for early intervention with at-risk substance users before more severe consequences occur. SBIRT skills are viewed as critical for health care and human service practitioners. This report describes the history and results of SBIRT implementation within States, communities, and medical residency training programs supported by the Substance Abuse and Mental Health Services Administration (SAMHSA). These real-world implementations build on findings of more than 100 research studies conducted during the past 30 years that have supported development of reliable screening tools, empirically proven brief interventions, and implementation and technology transfer research. The cumulative results of these efforts have demonstrated SBIRT's value for health care delivery systems and have supported a paradigm shift in how substance use is understood and addressed.

An emerging public health model today might describe substance use and abuse as a social and cultural problem with risks for individual addiction as well as for other problems and consequences—quite different from past models. Previously, substance use intervention and treatment focused on substance abuse universal prevention strategies aimed at those who had never initiated use and at specialized treatment services for those who met the abuse or dependence criteria. As a consequence, those who used substances at unhealthy or risky levels—in other words, those who could be diverted through early intervention from developing or experiencing a drug or alcohol problem or consequence—were left out of substance use disorder continuum of services. In the emerging public health paradigm, all services are aligned.

Continuum of Services

Primary Prevention	Universal Prevention Selective Prevention Indicated Prevention
Early Intervention	SBIRT and other brief interventions
Treatment	Evidence-based practices with recovery supports (ROSC)
Maintenance	Recovery supports, self-help, etc. (ROSC)

This report summarizes the accomplishments of SAMHSA-supported SBIRT initiatives between 2003 and 2011. Its appendices include copies of FFY 2011 companion reports for Medical Residency and State funded grantees.

2.0 State of SBIRT Report Goals

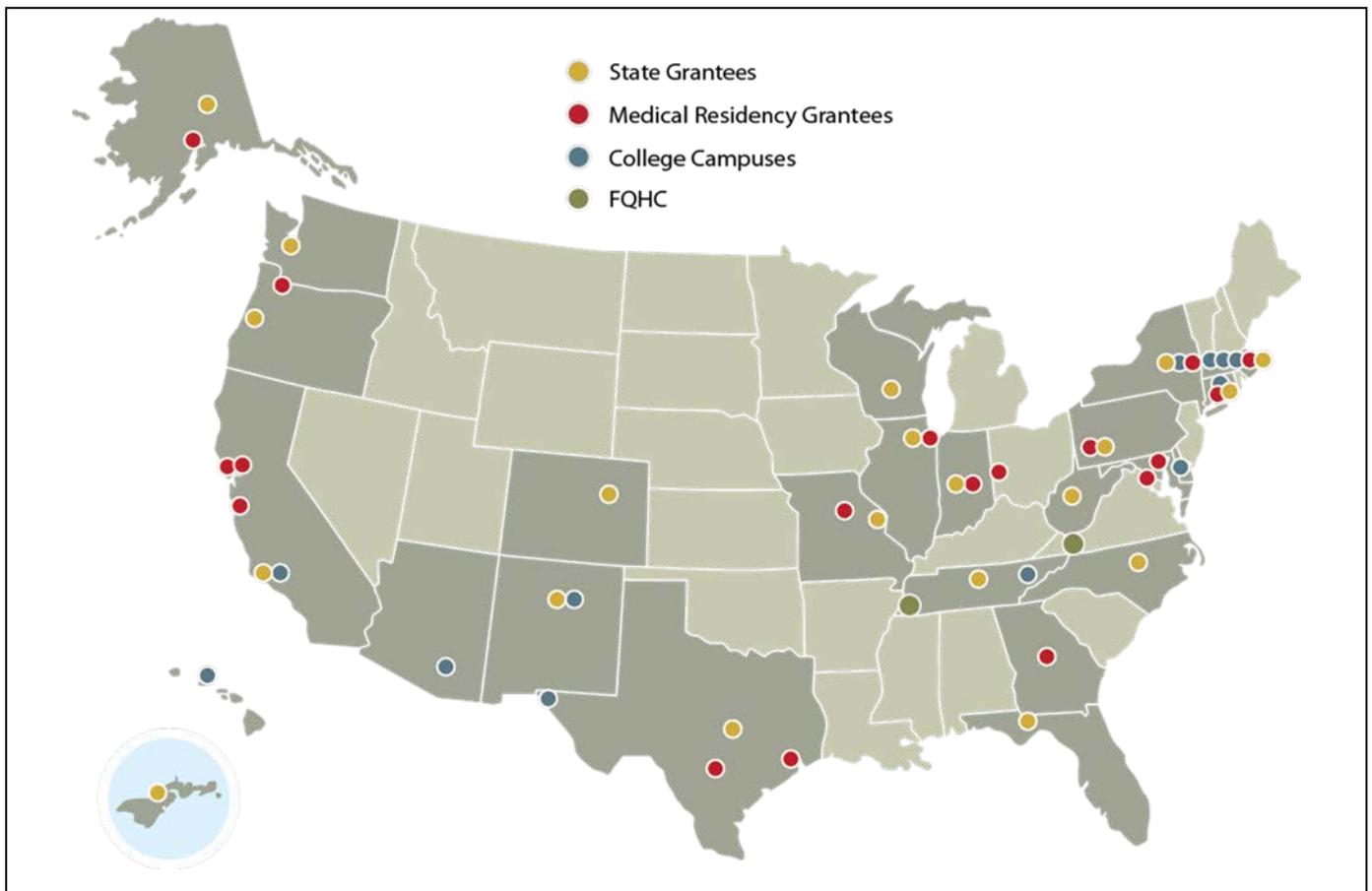
That SBIRT yields measurable improvements in individuals' health has been well demonstrated. Thus, "making the case for SBIRT" is not a primary goal of this report. Rather, this report has the following three goals:

- Identify successes and challenges of SAMHSA-funded SBIRT programs that might guide and inform future successful SBIRT implementation
- Identify current SBIRT activities and their alignment with SAMHSA's strategic initiatives
- Identify future opportunities for SBIRT in this time of rapid change in our country's health and human services delivery systems

3.0 A Brief History of SAMHSA-Funded SBIRT Initiatives

To date, SAMHSA has fully or partially funded four portfolios of SBIRT grantees: (1) SBIRT Cooperative Agreements to Single State Authorities (SSAs) for Substance Abuse Services; (2) SBIRT implementation on college campuses; (3) a pilot project for SBIRT implementation within Federally Qualified Health Centers (FQHCs); and (4) SBIRT implementation within 17 medical residency training programs. Each portfolio has contributed lessons learned for a sustained SBIRT service.

SBIRT Grantees Across the Country



Important public policy accomplishments must also be recognized because these accomplishments provide environmental context for the present and future of SBIRT. Building on the success of the intervention and its population-level public health value, SAMHSA and others have played supportive and educational roles in elevating the status of SBIRT. This process has aided promulgation of the 2008 SBIRT procedural and reimbursable codes that have been adopted by the Centers for Medicare and Medicaid Services (CMS) and others. Codes that bundle screening and brief interventions for alcohol and other drugs into a single and reimbursed service have multiple benefits for treatment providers. Further, with the adoption of the Affordable Care Act of 2010, SBIRT and other clinical preventative services are reflected in expectations for emerging accountable care organizations and patient-centered medical homes. Lastly, the emerging position of The Joint Commission (formerly JCAHO), the accrediting body for hospitals and other health care providers, supports adoption of SBIRT within hospitals.

SAMHSA-Supported SBIRT Grantee Timeline

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cohort 1: State	█	█	█	█	█	█								
Cohort 2: State				█	█	█	█	█	█					
Cohort 3: State						█	█	█	█	█	█			
Cohort 4: State									█	█	█	█	█	█
College Campus	█	█	█	█	█	█								
FQHC Pilot						█	█	█						
Cohort 1: Med Res						█	█	█	█	█	█			
Cohort 2: Med Res							█	█	█	█	█	█		

4.0 State SBIRT Grants

SAMHSA funded four cohorts of State grants each cohort for 5-year periods beginning in 2003, with six grantees in 2003 (Cohort 1), four grantees in 2005 (Cohort 2), and four grantees in 2008. A fourth cohort of nine grantees was funded beginning in October 2011. The first SBIRT grant program in 2003, with cooperative agreements to six States and one Tribal Council, was the first large-scale implementation of SBIRT in a wide range of community practice settings. This initiative was viewed as groundbreaking because previous SBIRT initiatives had been conducted in carefully controlled research settings. Adaptations were made to the SBIRT model to align with real-world circumstances, and the screening, brief intervention (BI), and brief treatment (BT) and referral to treatment (RT) procedures used were still deemed to be evidence-based practice. A primary adaptation to SBIRT was the move from an

intervention that was delivered primarily by the physician to a physician-led team model that might include allied health staff, health educators, peer educators, and behavioral health specialists. The roles of these other staff were determined by how the SBIRT intervention was embedded into the routine workflow of the practice setting and helped to reduce the time demands on medical staff. Quantitative data from GPRA found consistent and statistically significant reductions in patients' alcohol and illicit drug use following the receipt of SBIRT services. These reductions were consistent with those found in the research literature^{iv}.

The cooperative agreements RFAs with States in Cohorts 1, 2, 3, and 4 are intended to expand and enhance State substance abuse treatment service systems in several ways:

- Expand the State's continuum of care to include SBIRT in general medical and other community settings (such as community health centers, school-based health clinics and student assistance programs, occupational health clinics, hospitals, and emergency departments)
- Support clinically appropriate treatment services for nondependent at-risk substance users, persons with a substance abuse disorder, as well as for dependent substance users
- Improve linkages among community agencies performing SBIRT and specialist substance abuse treatment agencies
- Identify and support systems and policy changes to increase access to treatment in generalist and specialist settings

These CSAT-supported State programs supported large-scale implementation of SBIRT within multiple-practice sites, including primary care, hospital emergency departments (EDs), and other health and human service programs serving diverse populations of adults and youth such as homeless shelters, school based programs, veterans centers, and mental health centers.

An important component in these State SBIRT programs was implementing a State Policy Steering Committee (PSC) that was to provide strategic policy and operational advice to the SBIRT project and to the Governor on integrating SBIRT into the existing system of care and on State policies, as appropriate. The PSC consisted of 15–20 members and a chair, to be appointed by the Governor, including a representative of the Office of the Governor and diverse stakeholders in the State, including representatives from various entities, such as the following:

<u>SBIRT State Grantees</u>
<p><u>Cohort 1 State Grantees: 2003-2008</u> Cook Inlet Tribal Council (Alaska) California Illinois New Mexico Pennsylvania Texas Washington</p>
<p><u>Cohort 2 State Grantees: 2006-2011</u> Colorado Florida Massachusetts* Wisconsin* * No cost extension into 2012</p>
<p><u>Cohort 3 State Grantees: 2008-2013</u> Georgia Missouri Tanana Chiefs Conference (Alaska) West Virginia</p>
<p><u>Cohort 4 State Grantees: 2011-2016</u> American Samoa Colorado Connecticut Illinois Indiana New York North Carolina Tennessee Washington</p>

- Relevant State executive branch agencies (including the SSA), legislative committees, and judicial branch agencies
- Community specialist treatment organizations
- General and specialist health care organizations (such as FQHCs, hospitals, family practice clinics, EDs, and obstetrics and gynecology clinics)
- Occupational health clinics and employee assistance programs or Human Resources departments
- Student health centers and student assistance programs
- Unions and member assistance programs
- Professional and trade associations
- Recovery community organizations
- Community coalitions
- Training agencies and universities
- Employers and business coalitions
- Insurers and managed care organizations

The PSCs members are viewed as essential stakeholders that would support and empower systems changes to integrate SBIRT and sustain it beyond the life of SAMHSA funding.

As of October 2011, more than 1.5 million adults and youth have participated in SBIRT screenings and intervention. This initiative’s successes have demonstrated the flexibility and utility of the SBIRT intervention in a wide range of practice settings.

5.0 SBIRT on College Campuses

In 2003, SAMHSA funded an SBIRT initiative on 12 college campuses, most of whose student health services or offices of student life adopted the Brief Alcohol Screening and Intervention of College Students (BASICS) program. BASICS is a preventive alcohol abuse screening and brief intervention program for college students 18 - 24 years old. It is aimed at students who drink alcohol heavily and have either experienced or are at risk for alcohol-related problems, such as poor class attendance, missed assignments, accidents, sexual assault, and violence.

SBIRT College Campus Grantees

Bristol Community College
 New Mexico Highlands University
 Northeastern University
 State University of New York at Albany
 University of Arizona
 University of California – Los Angeles
 University of Delaware
 University of Hartford
 University of Hawaii at Manoa
 University of Massachusetts
 University of Tennessee
 University of Texas at El Paso

6.0 SBIRT FQHC Pilot

Through a special initiative, SAMHSA funded an SBIRT pilot program in FQHCs in 2008. This SBIRT pilot had two purposes: to implement SBIRT within diverse community health centers to screen for and identify individuals with or at risk for substance use-related problems; and to provide effective strategies for intervention prior to the need for more extensive or specialized substance abuse treatment. Partners in this initiative were the National Association of Community Health Centers (NACHC), the Center for Integrated Behavioral Health Policy, the George Washington University Medical Center, and the National Network to Eliminate Disparities. The project supported community health centers (CHCs) in adopting the SBIRT model, with support around implementation, funding mechanisms, documentation, and reporting requirements.

The SBIRT initiative included FQHCs in Tennessee and Virginia. Health centers were screened and selected to ensure that they were treating a diverse patient population that would meet National Network to Eliminate Disparities requirements, had experience in quality improvement activities, and were committed to dedicating the resources necessary to implement SBIRT services.

At the conclusion of the pilot, the participating FQHCs identified important lessons learned for future SBIRT adoption:

- Ensure that adequate staffing and leadership are in place at the organization as these elements are essential for implementing SBIRT services.
- Ensure that the organization's clinical and administrative leadership are demonstrably committed from the onset.
- Thoroughly investigate the reimbursement and sustainability landscape at the State level. Without adequate reimbursement (either at the State level or via a multi-year grant), SBIRT cannot be implemented successfully.
- Train all staff in SBIRT and Motivational Interviewing (MI).
- Determine a practice model with input from all levels of staff.
- Have face-to-face process improvement resources available, as "anything new is never done 100 percent right the first time."
- Align change and implementation activities in order to maximize the use of scarce resources.

Of note: More than 2 years after the conclusion of this pilot, the Virginia network of health centers has successfully sustained its practices with a successful business model that includes insurance billing and other sources of revenue. While information is not available on the specific pilot sites clinics in Tennessee, it is noteworthy that the State was awarded one of the Cohort 4, State Cooperative agreements that began in October 2011.

7.0 SAMHSA-Funded Medical Residency Training Programs

In two cohorts of competitive proposals funded in 2008 and 2009, SAMHSA has funded 17 medical residency training programs. The SBIRT Medical Residency Program’s primary purpose is to develop and implement training programs to teach medical residents skills to provide evidence-based screening, brief intervention, brief treatment, and referral to specialty treatment for patients who have, or are at risk for, a substance use disorder. Other purposes of the program are to sustain training of residents beyond the life of grant support and to promote adoption of SBIRT through delivery of training to local and statewide medical communities for wider dissemination of SBIRT practices.

SBIRT Medical Residency Program Grant funds are used to develop SBIRT curricula and clinical training as part of residency programs for physicians in multiple primary care areas: family medicine, internal medicine, obstetrics and gynecology, pediatrics, emergency medicine, trauma, psychiatry, and others. The program’s goal is to train physicians to provide SBIRT services and to promote systemic change in residency programs by integrating SBIRT into the curriculum on a long-term basis. The expectation is that SBIRT will be a component of the education provided to each successive class of medical residents.

SBIRT Medical Residency Grantees

Cohort 1 Medical Residency Grantees:

2008-2013

ACCESS Health Network
 Albany Medical Center
 Children’s Hospital - Boston
 Howard University
 Kettering Medical Center
 Natividad Medical Center
 Oregon Health and Sciences University
 University of Pittsburgh
 San Francisco General Hospital
 University of Texas Health Science Center
 Yale University

Cohort 2 Medical Residency Grantees:

2009-2014

Baylor College of Medicine
 University of Maryland - Baltimore
 Mercer University
 Indiana University
 University of Missouri-Columbia
 University of California San Francisco

Medical Residency Specialty Areas Trained

	Access	Albany	Baylor	Children’s	Howard	Indiana	Kettering	UMaryland	Mercer	UMissouri	Natividad	OHSU	Pittsburgh	SFGH	UTHSC	UCSF	Yale
Pediatrics		✓		✓	✓	✓		✓		✓			✓		✓	✓	✓
Family Practice/Family Medicine	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓		✓		
Adolescent and Child Health				✓						✓					✓		✓
Internal Medicine	✓	✓	✓		✓		✓	✓	✓	✓		✓		✓			
Psychiatry		✓	✓	✓	✓		✓	✓		✓					✓	✓	✓
OB/GYN	✓	✓			✓	✓		✓		✓			✓		✓	✓	✓
Emergency Medicine		✓				✓	✓						✓			✓	✓
Developmental Medicine				✓													
Surgery					✓					✓					✓		

An important dimension of this portfolio is that residency programs are more than classrooms and integral to the residency experience is the medical resident’s work in a medical practice site. Residency programs employed four overarching strategies: (1) to deliver an SBIRT training curriculum to a diverse group of primary care residency programs that serve urban, rural, and even frontier populations; (2) to create systems and organizational changes in resident’s training primary care clinics that will promote and support the use of SBIRT practices; (3) to integrate the use of SBIRT practices into routine clinic practices (process normalization); and (4) to develop policies and procedures for practices that support sustaining SBIRT. Systems changes were made in the practice workflow and electronic medical records to facilitate SBIRT integration. These experiences provide important lessons for broader dissemination of SBIRT into community medical practices and the patient-centered medical homes of the very near future.

8.0 Brief Summary of Key Performance Outcomes

The SBIRT intervention has produced demonstrable positive outcomes, based on a review of Government Performance and Results Act (GPRA) data (2003–2011).

- More than 425 practice sites deliver SBIRT supported by SAMHSA funds.
- More than 4,000 physicians and 8,500 allied professionals have been trained.
- Approximately 25,000 referrals have been made to specialty substance use disorder treatment.

Table 1: Changes in Substance Use Behaviors and Related National Outcome Measures (NOMS)

Cohort	Count of Intakes	Count of Matched 6-Month Followup	Measure type	# Valid Cases	% at Intake	% at 6-Month Followup	Rate of Change
Cohorts I-IV	1,474,659	21,035	Employment/Education: Were currently employed or attending school	5,758	33.7	39.5	17.0
			Stability in Housing: Had a permanent place to live in the community	5,899	49.7	52.5	5.7
			Crime and Criminal Justice: Had no past 30 day arrests	5,527	88.4	94.8	7.3
			No Social Consequences	5,625	50.4	84.4	67.4
			Abstinence: Did not use alcohol or illegal drugs	20,747	16.1	41.1	155.3
			Social Connectedness: Were socially connected	4,612	74.6	73.2	-1.8

Table 1 demonstrates that individuals exposed to some dosage of SBIRT—whether (1) screening alone, (2) screening and brief intervention, or (3) screening, brief, intervention, and referral to treatment—reported improved outcomes on most social measures, including employment/education status, housing stability, and 30-day-past-arrest rates. Most notably, respondents indicated a marked increase in self-reported rates of drug and/or alcohol abstinence at the 6-month followup (i.e., 41 percent of

respondents were abstinent from drugs and/or alcohol at followup compared to just 16 percent of respondents were abstinent at baseline). There was a slight decline in respondents social connectedness, but the change was likely not meaningful.

Table 2: Changes in Mental Health Outcomes

Cohort	Count of Intakes	Count of Matched 6-Month Followup	Measure type	# Valid Cases	% at Intake	% at 6-Month Followup	Rate of Change
Cohorts I-IV	1,474,659	21,035	Depression	5,516	47.3	37.3	-21.0
			Anxiety	5,525	46.7	40.5	-13.2
			Hallucination	5,575	8.3	5.6	-32.8
			Trouble understanding, concentrating, or remembering	5,514	31.6	29.9	-5.5
			Trouble controlling violent behavior	5,607	11.7	8.5	-27.3
			Attempted suicide	5,625	4.5	1.5	-66.9
			Been prescribed medication for psychological or emotional problems	5,597	17.9	19.0	6.0

Table 2 demonstrates that individuals exposed to some dosage of SBIRT—whether (1) screening alone, (2) screening and brief intervention, or (3) screening, brief, intervention, and referral to treatment—reported improved mental health outcomes, including reductions in depression, anxiety, hallucinations, and anger. Most notably, respondents indicated a marked reduction in self-reported suicide attempts at the 6-month followup (i.e., 1.5 percent of respondents had attempted suicide at followup compared to just 4.5 percent of respondents at baseline). Respondents were also slightly more likely to have been prescribed medication to control psychological and/or emotional issues.

Table 3: Impact on Risky Behaviors

Cohort	Count of Intakes	Count of Matched 6-Month Followup	Measure type	# Valid Cases	% at Intake	% at 6-Month Followup	Rate of Change
Cohorts I-IV	1,474,659	21,035	Injected illegal drugs	19,496	19,496	1.5	-55.1
			Had unprotected sex	1,059	75.2	71.9	-4.4
			Had unprotected sex with HIV infected individual	617	2.1	1.0	-53.9
			Had unprotected sex with IV drug user	617	7.5	3.9	-47.8
			Had unprotected sex with high individual	617	25.1	16.7	-33.5

Table 3 demonstrates that individuals exposed to some dosage of SBIRT—whether (1) screening alone, (2) screening and brief intervention, or (3) screening, brief, intervention, and referral to treatment—reported reductions in risky behavior, including fewer unprotected sexual encounters. Most notably,

respondents indicated a marked reduction in self-reported injection drug use at the 6-month followup (i.e., 1.5 percent of respondents reported injection drug use at followup compared to just 3.2 percent of respondents at baseline).

9.0 Successful Practice Models and Strategies Supporting SBIRT Sustainability

Below are descriptions and examples of successful models and strategies implemented by State and Medical Residency grantees. These models and strategies are clustered around key sustainability themes.

9.1 Flexible and Transferable Practice Model

SAMHSA defines the SBIRT intervention as an integrated and comprehensive intervention for substance use disorders. The SBIRT intervention has been successfully delivered in multiple venues with successful adaptations by primary care providers, medical specialists, allied health care providers, and behavioral health practitioners. Implementers of SBIRT describe embedding the intervention into the routine workflow, record keeping systems, business practices, and policies and procedures as essential to success. Who delivers the intervention and how they do it are influenced by the facility's unique context. Most commonly, a model involving collaboration between a primary care provider and allied staff is adopted because of the primary care provider's time constraints and because the institution has real needs for a viable business practice model.

9.2 SBIRT Implemented Within Multiple Practice Settings

SBIRT has been successfully adapted and implemented into multiple and diverse practice settings, including hospital EDs, hospital inpatient settings, primary care clinics, and community health centers such as FQHCs, geriatric programs, HIV/AIDS programs, secondary schools, colleges, homeless shelters, military installations, and other settings. Examples below showcase how SBIRT has been successfully implemented within multiple practice settings.

- **Yale New Haven Hospital** has integrated SBIRT into the practices of its Pediatrics Department.
- **The Natividad Medical Center**, located in Salinas, California, delivers SBIRT within the Geriatric Services at the Monterey County Veterans Administration, and other settings.
- **The Georgia BASICS** program has been implemented at Georgia's two largest hospital EDs: Grady Health Systems in Atlanta, and the Medical Center of Central Georgia in Macon. Both sites are Level-1 Trauma Centers.
- **The State of Wisconsin** implemented SBIRT into 15 sites, including 8 primary care clinics, 4 FQHCs, 1 tribal clinic, 1 behavioral health clinic, 1 trauma center, and 1 inpatient unit.
- **The State of New York** is implementing SBIRT at a military installation in the Upstate region and within HIV/AIDS clinics in New York City.
- **The Commonwealth of Massachusetts** supported program implementation at three primary hospital sites and five community health centers.

- **The State of Colorado** implemented SBIRT in multiple Level-1, -2, -3, and -4 trauma centers, four FQHCs, a full-service, acute-care hospital, and a community care clinic serving an indigent population.

9.3 SBIRT Embedded into Clinical Practice Settings

As a means for successful implementation and for sustainability, grantees highlighted the importance of addressing the systems in which the intervention takes place and embedding SBIRT as a part of routine clinical practice and workplace culture.

9.4 SBIRT Embedded into Practice Workflow

The Oregon Health Sciences University (OHSU) Medical Residency Program approach to implementation is based on a systems approach that integrates SBIRT within the patient-centered medical home model of primary care. Within this team-oriented model, the front desk staff, medical assistant, and clinician together carry out the SBIRT intervention. Based on an analysis of the workflow and clinic systems, the OHSU SBIRT team developed an implementation model for each of the clinics.

9.5 SBIRT and Electronic Medical Record Integration

SBIRT has been integrated (or is in process of being integrated) into the EMRs of nearly all grantee health care settings. Integrating SBIRT into the EMRs has multiple dimensions of value. It supports quality documentation and coordinated communication among providers. It prompts screening and follow-up activities; and it supports monitoring, fidelity of implementation, and billing.

To further enhance the EMR's utility, at OHSU an SBIRT "Smart Set" has been created to facilitate data entry for patients' screening information, BI information, physician notes, billing information, and prescription notes. The SBIRT Smart Set increases buy-in, enhances documentation quality, supports billing, and facilitates monitoring of fidelity to the SBIRT model.

9.6 Technology Used by Allied Staff for SBIRT

The Missouri Screening, Brief Intervention, and Referral to Treatment (MOSBIRT) project has created a computer-tablet-based SBIRT project management resource (MOSbox) to coordinate the screening and data collection processes. MOSbox ensures program fidelity to the SBIRT model and supports a standardized implementation process. Other programs have introduced similar use of tablets and PDAs to support the process.

10.0 Training and Further Knowledge Development

SBIRT is viewed by SAMHSA and other Federal partners as an essential skill set for the health care practitioner because substance use and its consequent medical, social, and legal problems are highly prevalent, frequently undetected, and treatable in a variety of settings. High-quality training and knowledge development efforts have occurred over the past 10 years. The 17 medical schools, the 18 State grantees, and other medical and behavioral health entities have each developed SBIRT training curricula and supportive materials for medical residents, practicing physicians, allied health professionals, and others. The trainings are intended, at minimum, to build the necessary skills and knowledge with the practitioner to perform three functions: (1) to conduct the evidence-based screening, including use of standardized instrumentation; (2) to provide a brief intervention based on MI strategies to reduce risky levels of use; and, when indicated; and (3) to negotiate and facilitated referral to treatment for alcohol and other drug problems.

In addition to these essential skills, health practitioners have been introduced to a wide range of important and contemporary issues in addictions and behavioral health, such as: the unique needs of youth, women, elders, diverse, and immigrant populations; clinical issues surrounding substance use, abuse, and dependence; the culture of recovery; co-morbid physical and mental disorders; pain and prescription opioid abuse; and addiction pharmacology.

Training for advanced intervention strategies include advanced skills in motivational interviewing, including use of the Brief Negotiated Interview (BNI) (described later in this report), cognitive and behavioral change strategies, medical management of patient withdrawal, clinical protocols for pain management, the appropriate use of prescription opioids, and physician/provider self-care and wellness.

SBIRT training materials are high in quality and provide important contributions to the learning and development of our health and human service workforce. They span medical and other specialties. They are also directly relevant for nurses, physicians' assistants, allied health workers, and behavioral health workers who operate in primary care settings and elsewhere in the community.

In addition to developing quality training materials, innovative pedagogical approaches have been employed that are grounded in evidence-based learning strategies. These approaches to learning help the trainees acquire knowledge and skills, transfer and integrate the learning into practice settings, and use supports that maintain fidelity to the delivery of the intervention.

10.1 Innovative Learning Technology

- **The University of Pittsburgh** and a software contractor have collaborated to create an interactive Web-based clinical training program to teach effective behavioral intervention (EBI) concepts and skills to medical residents. The program consists of dramatizations and simulated encounters with a video patient.
- **Yale University** has created a virtual SBIRT/MI coach that provides real-time feedback.
- **The University of Missouri-Columbia, Oregon Health Sciences University, State of Missouri,** and others have developed a series of online curricular materials for medical residents, physicians, and others.
- **Howard University** is developing an interactive learning product that will enhance the training of medical residents and other health care professionals in conducting SBIRT. Partnering with a Maryland-based software development company, Howard is developing a product that simulates a real patient's characteristics. The interactive patient technology allows medical learners to have continuous access to a virtual patient to practice and review their SBIRT skills.
- **Yale University web site** (www.yale.edu/sbirt) provides a virtual learning environment for the Medical Residency Program. The site houses the curriculum, MI and BNI videos, case studies, surveys, journal articles and scholarly papers, and other curricular materials and resources.

10.2 Innovative Learning Strategies

Technology is only as good as the content and strategy it supports. Grantees have implemented a variety of evidence-based learning strategies. All training programs use a variety of teaching strategies, including didactic presentations, case studies, experiential learning activities, demonstration videos, role-play, and videotaped sessions that are reviewed and processed.

- **The Mercer SBIRT residency training initiative** developed the Virginia Reel—an innovative approach to train primary care residents to address substance misuse. This approach supplements 3 hours of MI training with feedback and coaching, using an Objective Structured Clinical Exam (OSCE) format. Residents rotated through 8 OSCE stations addressing 17 MI-based microskills. At each station, a trainer played the roles of actor and coach. For each interview segment, residents received skills instruction, practiced, received feedback, then rotated to the next station in “Virginia Reel” fashion.
- **The Natividad Health System** has a distinctive model for training residents in SBIRT. It includes a train-the-trainer component and heavy community involvement. Residents both practice and train others in SBIRT throughout the hospital and community. This model has proven successful in supporting skills integration and sustainability for future SBIRT training.
- **The Kettering Hospital** program has adopted the Bedside Learning component, conducted by the SBIRT Educator as part of the month-long resident rotation. The resident accompanies and assists the SBIRT Educator for an actual bedside intervention with a selected hospital patient who screened in the “at-risk use” category on the SBIRT screening tool. The practical application of skills in a real-world setting with hospital patients is a powerful learning experience. The SBIRT Educator can provide real-time feedback to the residents and process the encounters with them.
- **The San Francisco General Hospital SBIRT, Yale University, and collectively University of Pittsburgh, Baylor College of Medicine, and Mercer University** (supported through a SAMHSA multisite technical assistance) each developed fidelity adherence and monitoring scales to monitor and evaluate the skills taught in training and to monitor fidelity of the intervention delivery in practice settings.
- **The Missouri SBIRT project** conducts intensive 5-day training sessions that provide skills in the SBIRT intervention and the Motivational Interviewing/Motivational Enhancement and Cognitive Behavioral Therapy techniques used in the brief interventions for those at moderate to high risk for developing substance use problems. After training, the SBIRT health coaches are required to submit recorded sessions with patients on a monthly basis for fidelity review. Booster trainings are held regularly and are tailored to address any issues identified in the fidelity reviews.
- **Missouri** also developed unique trainings for GPRA-required activities. GPRA and associated interviewing skills are often described as dry and tedious. To combat the rote review of the assessments and screening techniques, Missouri developed informational reviews in game formats. An interactive presentation based on the Jeopardy game show has been developed for the GPRA review process with questions and answers about usual and unusual situations in each of the National Outcome Measurement (NOM) domains. “Contestants” participate in the game, and a certificate is awarded to the person with the highest score.

10.3 Flexible Training Strategies

Flexible training designs are an absolute requirement for working practitioners, who usually do not have the scheduling flexibility to attend multiday training events. Most commonly, training events are organized into 1-, 2-, or 3-hour sessions and are implemented over weeks. While “anywhere/anytime” online technologies have obvious advantages for knowledge dissemination, they often lack the immediacy and precision for the coaching and real-time feedback that supports skills development. Combining Web-based, didactic, and experiential learning provides opportunities that might not otherwise be possible.

10.4 Mobilization of Stakeholders

- **The State of Wisconsin** efforts to sustain SBIRT services could serve as a model for State programs moving forward. The program constructed a business case for sustainability and generated momentum supporting commercial, Medicaid, and Medicare reimbursement. They engaged payers on multiple fronts with initiatives such as a payer recognition program and a claims tracking program. They also developed a productive partnership with Wisconsin Manufacturing and Commerce association to generate employer demand. Wisconsin identified a set of criteria for payers that includes providing reimbursement for SBIRT under special billing codes, reimbursement without out-of-pocket payments by patients, and reimbursement when professionals and paraprofessionals, such as health educators, deliver services. Supportive legislation was initiated that further embeds SBIRT within the Wisconsin health care delivery system.
- **The Colorado SBIRT** Policy Steering Committee played a critical role in addressing Medicaid reimbursement and getting SBIRT reimbursement codes activated in the State. The State plans to continue utilizing the Policy Steering Committee members to address billing and reimbursement issues.

11.0 Notable Accomplishments

11.1 Use and Integration Within Electronic Health Records

The State of Oregon and Oregon Health Sciences University grantees were partners in developing the Oregon Community Health Information Network (OCHIN). OCHIN is a not-for-profit corporation that supports providers and practices working to select, install, and effectively use health IT. OCHIN provides a fully hosted, customized application of the Epic System’s practice management system (PMS) and electronic health record (EHR). This system has a unique application tailored for community health centers.

11.2 Implementation Among Diverse Populations and in Rural and Urban Settings

SBIRT has now been implemented in more than 425 setting throughout the continental United States, Alaska, and American Samoa. Persons served have included White, Black, Native American, Inuit, Latino/Hispanic from multiple nationalities, Chinese, Japanese, Cambodian, Somalian, Vietnamese, and others. Materials have been translated into a dozen different languages, and providers have planned carefully to assure the cultural relevance and appropriateness of services.

Practice settings have included clinics, hospitals, and homeless shelters in places such as urban Chicago, New York City, Seattle, San Francisco, and Washington, DC. Practice settings have also included rural Missouri, Alaska, New Mexico, West Virginia, and others.

11.3 Innovative Use of Technology

Grantees have made creative use of technologies to support program activities, including Health IT, software and hardware to support practice, online education, and Web-based interactive technology, including avatar coaches, virtual patients, and tablet technologies.

11.4 Public Access Web Portals Supporting Information Dissemination

- **The Institute for Research, Education and Training in Addictions** has served as the lead training agency for SBIRT in Pennsylvania since 2003. <http://sbirt.ireta.org/sbirt/>
- **The BNI-ART Institute at Boston University** has been at the forefront of training health care providers in SBIRT and disseminating SBIRT best practices based on lessons learned from research. <http://www.bu.edu/bniart/>
- **The SBIRT Oregon** Web site includes an online curriculum that begins with teaching a specific office process in which clinic staff conduct annual screening using paper or electronic medical record screening tools. The site also includes access to documents and tools. <http://www.sbirtoregon.org/>
- **The Indiana SBIRT** project created an SBIRT Wikispace—a free informational site that anyone can access and use to upload information. They have uploaded dozens of public domain documents, linked to multiple sites, and created blogs and a message board. To join this wiki, please visit: <http://www.wikispaces.com/t/c/4H1b195u3Z7KGK4iBX0xmY>

11.5 Enhanced Medical Interventions Addressing Prescription Opioid Misuse and Abuse

The Mercer University Medical Residence Program, in cooperation with others, developed and implemented a training and pain management and prescription medication patient care management protocol as a significant enhancement to the existing SBIRT model. The Mercer model is based on an assessment of patient risk and benefit and is grounded in well-established principles and practices.

This protocol addresses the patient-in-pain's need through a defined and guided strategy that includes several components: a thorough patient assessment; a discussion of risk and benefit; use of universal precautions for opioids to monitor for aberrant behaviors (treatment agreements, routine urine drug testing, pill counts, and accessing the State's Prescription Monitoring Program); and regular followup.

11.6 Recognition of SBIRT Interventions as Evidence-Based Practices

The Brief Negotiated Interview (BNI) is a short counseling session, ranging from 5 to 60 minutes. The BNI was first developed in 1994 by Drs. Edward Bernstein, Judith Bernstein, and Gail D'Onofrio, in consultation with Dr. Stephen Rollnick, for Project ASSERT (Alcohol and Substance Abuse Services, Education, and Referral to Treatment) in the ED.^{vi} It was later refined and tested for hazardous and harmful drinkers in the ED at Yale University's New Haven Hospital.^{vii} Project ASSERT has been recognized by SAMHSA's National Registry of Effective Programs and Practices. This SBIRT model is designed for use in health clinics or EDs.

12.0 SBIRT Successes Supported Through SAMHSA-Supported Technical Assistance

SAMHSA has supported SBIRT grantees by providing timely and high-quality training and technical assistance (TA) addressing both clinical and programmatic aspects of SBIRT implementation. Some clinical issues addressed have included use of MI, prescription opioid abuse, cultural competence, and SBIRT across the lifespan. Training and TA topics on programmatic support have included strategies to engage key stakeholders, building a business case, tools to monitor fidelity on program implementation, and sustainability planning.

13.0 SBIRT Alignment With SAMHSA's Strategic Initiatives

SAMHSA has identified eight Strategic Initiatives to focus its resources on areas of urgency and opportunity. They will enable SAMHSA to respond to national, State, Territorial, tribal, and local trends and support implementation of the Affordable Care Act and the Mental Health Parity and Addictions Equity Act. These Initiatives will guide SAMHSA's work through 2014 to help people with mental and substance use disorders and their families, build and support strong and supportive communities, prevent costly and painful behavioral health problems, and promote better health and functioning for all Americans. SBIRT plays a role as an important strategy within three of SAMHSA's initiatives.

13.1 Health Reform

The passage of the Affordable Care Act has ensured many opportunities to improve health care quality. One such opportunity is the integration of primary and behavioral health care. The U.S. Preventive Services Task Force (USPSTF) recommends screening and behavioral interventions to reduce alcohol misuse by adults, including pregnant women, in primary care settings.

SAMHSA has taken a primary role in promoting and supporting primary and behavioral health care integration nationwide through several different initiatives, including the adoption of SBIRT practices at all levels of primary care as an evidence-based clinical prevention and early intervention strategy.

13.2 Military Personnel and Families

The SBIRT model is viewed as consistent with the Veterans Administration and Department of Defense (VA/DoD) Clinical Practice Guideline for Management of Substance Use Disorder (2009) (<http://www.healthquality.va.gov/index.asp>). It will aid health care providers in integrating a step-by-step process for clinical decision-making addressing substance use and associated problems and consequences. SBIRT is viewed as reducing risk and promoting wellness and resilience. SBIRT has been piloted on military bases and is being adopted by the Army National Guard as a universal strategy.

13.3 Health Information Technology

The importance of health information technology (HIT) is recognized. SBIRT has been integrated into the OCHIN and other electronic medical record (EMR) systems. This integration supports a collaborative approach to building and sharing practice management supported by the (EMR) systems. The collaborative capacity includes several tools that allow and support health providers to coordinate care with their partners:

- A single shared medical record for each patient
- Clinical documentation tools shared among all partners
- Reporting tools that measure clinical improvement and/or organizational performance
- Benchmarking against each other for productivity, clinical effectiveness, and other quality initiatives
- Sharing best practices in billing, claims submittal, population management and a host of clinical improvement areas.

14.0 Looking to the Future: Cross-Cutting Themes That Can Inform Further Dissemination and SBIRT Application in New Arenas

SBIRT has now been implemented in multiple settings addressing multiple populations. Looking to future dissemination of the intervention, important lessons learned during the last decade can inform future implementation considerations. The cross-cutting themes described below are important elements to readiness and sustainability:

14.1 Key Leadership and Stakeholder Endorsement and Support

The primary care and behavioral health service systems include spheres of interrelated leadership across multiple sectors, including regulators, accrediting bodies, payers, policymakers, service delivery systems, educational systems, consumers, and perhaps others. “Good enough” endorsement and support by key leaders is a necessary requirement for program success, while the absence of support usually dooms a program to obscurity after grant funding ends. Therefore, in looking to the future, it is important to ask: Are the essential leaders and stakeholders of the initiative willing and able to commit and champion SBIRT over time in their various roles as participants in the change and implementation process?

14.2 Resources Supporting Operations

Adequate financial resources are necessary to support the business model for integrating SBIRT into primary care settings. Important first steps have been made at the Federal level, with the promulgation of screening and brief intervention policy and billing codes for Medicaid and Medicare services. It is also recognized that third-party payers often follow the trail blazed by CMS. Some but not all States have begun to reimburse for the procedure. Also, in several States the initially established rates for the service have lagged behind actual service delivery costs. Looking to the future, two questions must be asked: Does adequate funding exist to support SBIRT services through conventional payer systems beyond the time-limited grant-based funding? Can service providers construct a viable business model?

14.3 Infrastructure Supporting Implementation and Sustainability

The infrastructure to support further dissemination and sustainability must include adequate training and technical assistance (T/TA), integration into facility EHRs and into standard operations practices, and supportive and enabling policies. High-quality training content has indeed been developed, significant progress has been made in integrating SBIRT practices into EHRs, and core national policies have been enacted. However, further enhancements are necessary for efficient and sustainable operations. Most notably, CMS policies continue to include same-day service exclusions^{viii}. Strategies to bring training systems to scale are yet to be developed. Lastly, timely access to community-based substance abuse treatment services has been described as challenging. Shrinking State revenues in recent years have challenged an already under-resourced provider system.

14.4 Successful Practice Models

An overwhelming success of SBIRT is its flexible and effective practice model that has been implemented in hundreds of locations serving diverse populations, while maintaining adequate intervention fidelity and continuing to achieve positive patient outcomes. In locations where adequate ongoing resources are available, the SBIRT practices continue beyond grant funding. In most locations, a team model is implemented that fits within the unique workplace environment, alleviating the burden on physician time.

14.5 Future Opportunities

SBIRT's success is partly based on its achieving its intended outcomes. It is also gauged by the possibilities for its future uses. Looking at the current priorities identified within SAMHSA and Health Reform, several possible future opportunities exist.

- *SBIRT in patient-centered medical homes*—Most primary care clinicians of the future will practice in the team-based environment of the patient-centered medical home, where clinically preventative services and integrated behavioral health service are to be part of the menu of interventions for patients.
- *SBIRT for service personnel and families*—SBIRT is currently being implemented at several military installations in the United States and soon will be implemented within the Army National Guard.
- *SBIRT and depression*—In 2011, CMS adopted guidelines for the routine screening of depression.^{ix} Also, research literature at the National Institutes for Health indicates that brief psychosocial interventions have the potential to prevent or reduce depression in patients, including those with co-morbid health conditions.^x
- *SBIRT in the workplace*—Pilot studies conducted in partnership with Aetna Behavioral Health, Optum/United Behavioral Health, and ValueOptions demonstrate that SBIRT can be adapted to workplace EAPs.^{xi}
- *SBIRT in school health centers*—School-based health centers (SBHCs) offer a variety of onsite behavioral health and preventative services. The SBHC setting provides many benefits for behavioral health services, including access, efficiency, and effectiveness. The Affordable Care Act appropriated a total of \$200 million for 2010 through 2013 to support capital grants to improve and expand services at school-based health centers.
- *SBIRT-trained allied health and behavioral professionals*—Primary care is increasingly provided by nurses, nurse practitioners, and physician assistants. Schools have piloted SBIRT training for nurses, and the national Nurse Associations have adopted the public positions that support use of SBIRT. As behavioral health and primary care further integrate, there is a need to train the behavioral health care workforce.

15.0 Conclusions

The problems and consequences of unhealthy and unsafe alcohol and drug use are a major preventable public health concern with far-reaching implications—not only for the individual, but also for the family, workplace, community, health care system, criminal justice system, and the economy. These adverse effects have been well documented.

In research settings, and with 10 years of real-world implementation experience, SBIRT has demonstrated its effectiveness—consistently yielding positive outcomes with measurable reductions in alcohol and illicit drug use, in negative social consequences associated with use, and in risky behaviors such as unprotected sex and injection drug use. The intervention has also demonstrated positive effects, with improvement in mental status and reductions in both depressive and anxiety symptoms. Improvements in other domains of the patients' lives can be safely inferred.

SBIRT knowledge has been widely disseminated, and the skills supporting SBIRT implementation within multiple-practice sites have been successfully imparted via large-scale trainings. Important lessons have been learned from SAMHSA grantees as they have successfully operated programs in diverse settings. These lessons learned can guide and inform replication and future efforts.

The success and value of this intervention has been measured retrospectively by its demonstrated outcomes, and prospectively with its potential for future applications. This future can include bringing SBIRT to scale as part of Health Reform and embedding SBIRT within patient-centered medical homes and accountable care organizations. It also has potential applications in other areas of concern, such as assisting military service personnel and their families and other SAMHSA priorities.

This report illustrates various successful SBIRT implementations supported by SAMHSA. In a world of Health Reform, increasing patient needs, and shrinking dollars, these cost-effective and innovative methods serve communities and build linkages between primary and behavioral health. These SAMHSA-funded initiatives provide structure, resources, and supports to help build easily replicable programs that are more responsive to the needs of the patients and communities—in contrast to previous practices, where substance use issues were often under-identified and not addressed. Looking to the future, this paper is intended to support and inform discussions, decision making, and planning regarding SBIRT.

Endnotes

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