SBIRT Service Design Site Visit Report

Oregon Health and Science University

Service Design Site Visit Report
Medical Residency: Oregon Health and Science University

Prepared by JBS International, Inc., and Alliances for Quality Education, Inc.
Prepared for the Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment

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Medical Residency: Oregon Health and Science University

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Grant TI Number	TI020272
Date of Site Visit	October 20–21, 2011
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Overview and Summary of Findings

Purpose of the Visit

The purpose of the site visit was to conduct an onsite assessment of program strengths and to engage the grantee in a continuing improvement process supported by technical assistance, as approved by the Substance Abuse and Mental Health Services Administration (SAMHSA). Assessment of Oregon Health and Science University's (OHSU's) Screening, Brief Intervention, and Referral to Treatment (SBIRT) medical residency training program model, curriculum, training methods, implementation, and program evaluation was completed by:

- Meeting onsite with the principal investigator, project director, residency directors, evaluator, program champions, training coordinator, faculty, and clinic staff to review curriculum components and materials
- Visiting Family Medicine and Internal Medicine clinics where residents practice SBIRT

On October 20–21, 2011, the site visit team met with the OHSU SBIRT medical residency training program to gain a better understanding of the SBIRT medical residency training program model, curriculum, training methods, implementation, and program evaluation. The site visit team also visited clinics where the residents practice SBIRT and was provided with an orientation on how SBIRT has been integrated into these settings.

Day 1, October 20, 2011: During the morning of Day 1, the site visit team met with the OHSU SBIRT medical residency training program team at the OHSU School of Medicine in the Family Medicine Department. Following introductions, the residency training program team provided an in-depth overview of the SBIRT medical residency training program, including its background and context, program model, curriculum components, faculty training, residency implementation, dissemination model, and sustainability planning and electronic medical record (EMR) tools. This orientation provided a foundation for the site visit activities that followed.

During the afternoon of Day 1, the site visit team reviewed the SBIRT training curriculum, met with the residency director of OHSU Family Medicine, and toured Internal Medicine and Family Medicine clinics that have integrated SBIRT into clinical practice.

Day 2, October 21, 2011: On the morning of Day 2, the site visit team met with OSHU's SBIRT medical residency training program local evaluator to discuss the program's process assessment, outcome assessment, and performance monitoring activities.

During the afternoon, the site visit team visited the Providence Milwaukie Hospital's Family Medicine Residency Program. The team met with the residency director to learn about how SBIRT has been integrated into the residency's primary care medical home setting.

Project Overview

OHSU School of Medicine's SBIRT program is currently in year 3 of its 5-year SAMSHA SBIRT grant. The project's four overarching goals are to: (1) deliver an SBIRT training curriculum to five residency programs representing a diverse group of primary care residency programs, including university- and nonuniversity-based programs that serve urban, rural, and frontier populations throughout Oregon; (2) create systems and organizational change in seven primary care clinics to promote and support the use of SBIRT practices; (3) implement the use of SBIRT practices into routine clinical exams for all new patients and annually for existing patients; and (4) develop policies and procedures for disseminating the SBIRT curriculum and clinic practices to a broader network of university- and nonuniversity-based primary care programs throughout Oregon.

Residents in three primary care specialties receive SBIRT training, including: (1) Family Medicine; (2) Internal Medicine; and (3) Preventive Medicine. Over the 5-year period, OHSU's medical residency training program expects to train 400 residents, and as of October 20, 2011, 260 residents have been trained.

The curriculum provides SBIRT training for residents, faculty, and clinic staff. The curriculum is supported by a Web site and an array of curricular tools.

OHSU's approach to SBIRT medical residency program implementation is designed to operate within the patient-centered medical home model of the primary care settings. Systems changes were made in the clinic workflow and EMRs to facilitate the integration of SBIRT in the clinics prior to the completion of the residents' training.

OHSU currently provides SBIRT services in seven clinics in Oregon. The clinics are located in Portland, Milwaukie, and Klamath Falls. Physician champions and staff champions serve as primary points of contact for promoting buy-in for SBIRT and integrating SBIRT in the clinics.

A process evaluation is conducted to assess the medical residency training program's progress in integrating SBIRT into clinic processes, training residents, and the clinic team's perceptions of the efficacy of SBIRT. An outcome evaluation assesses the impact of training on residents' attitudes, knowledge, and behavior related to SBIRT.

Project Accomplishments to Date

OHSU School of Medicine's medical residency training program accomplished several program activities since initiation of the grant, including the following:

- Developed a core curriculum using the Brief Negotiated Interview (BNI) model that has been implemented in the Family Medicine, Internal Medicine, and Preventive Medicine residency programs
- Developed evaluation tools to assess SBIRT training and clinic implementation
- Developed a plethora of training tools including laminated pocket cards, role plays, and billing guides
- Developed and launched the resourceful www.sbirtoregon.org/ Web site that features the full curriculum, training videos, screening instruments, and resources
- Adopted a systems approach to SBIRT training and built capacity within practice sites before having residents begin the practice of SBIRT
- Looking to the near future, organized their practice sites as patient-centered medical homes

Program Strengths

Program Model

The OHSU medical residency training program has developed a patient-centered medical home model in which SBIRT is imbedded. This strategy is intended to normalize SBIRT in the clinical process. Physician assistants, nurses, and office staff are included in the normal work flow.

Physician and Staff Champions

Each residency site designates at least one staff champion and a physician champion. The staff champion oversees screening in the clinic and facilitates the integration of SBIRT into clinical office practice. The physician champion promotes physician buy-in and the adoption of SBIRT in the residency program. A percentage of the salaries of the

staff champions, physician champions, and residency directors are supported by the grant.

Web Site

The www.sbirtoregon.org Web site provides a virtual learning environment for the medical residency program. The Web site houses the training curriculum, alcohol and drug screening forms, role plays, demonstration videos, information on reimbursement, and other curricular materials and resources.

SBIRT Program Sustainability

OHSU's medical residency training program faculty have designed and implemented mechanisms for program sustainability including imbedding SBIRT into residency practice sites, integrating SBIRT into the EMR, and web-based training through the www.sbirtoregon.org Web site.

Electronic Medical Records

SBIRT has been incorporated into the EMR in the OHSU residency clinics where SBIRT is performed. An SBIRT smart set is being created that will facilitate data entry for patients' Alcohol Use Disorders Identification Test (AUDIT) and Drug Abuse Screening Test (DAST) scores, brief intervention (BI) information, physician notes, billing information, and prescription notes. The SBIRT smart set will increase buy-in and facilitate the monitoring of fidelity to the SBIRT model.

Program Challenges/Barriers

Time/Scheduling

Finding time to schedule training for residents, faculty, and staff has presented logistical challenges. In addition, many residents and physicians feel there is not enough time during patient visits to address alcohol and substance use issues, which are often not included in the medical complaints that the patient presents.

Buy-In

Physician buy-in is described as a challenge. Many faculty physicians have limited understanding of the efficacy of SBIRT and do not see the connection between alcohol and drug screening and the impact of substance use on certain chronic conditions. Limited physician support also appears to have a secondary effect, influencing the relative importance that allied medical staff place on supporting SBIRT and staff perceptions of the importance of their role in the process.

Oversight and Accountability

It is difficult to determine the fidelity of residents' performance of the Brief Negotiated Interview (BNI) steps with patients, as there are inconsistencies between the number of screenings and brief interventions that residents are performing and the number of each that are being documented in the EMR. Upgrades to the EMR system will hopefully improve data collection supporting more accurate counts.

Referral Services

Referral to treatment is described as a challenging aspect of OHSU's SBIRT program. The SBIRT training and practice in many clinic settings does not focus on actively connecting patients to referral services. Additionally, there is a shortage of available services in the community for patients who require specialized treatment services.

Reimbursement

Billing codes exist for SBIRT in Oregon, however actual billing is limited at this time as clinic compliance departments often require additional language in the patient documentation in order for billing to occur and rates for reimbursement are relatively low.

Limited EMR Tools

SBIRT data input and extraction are currently limited because of the current capacities and tools in the existing EMR. To address this issue, an "SBIRT Smart Set" is being created within the EMR that will make the reporting of SBIRT data easier and facilitate appropriate documentation. The SBIRT team hopes that in the future the prescreen performed directly by the patient will transition to a tablet interface**.**

Sustainability

A challenge for the sustainability of the SBIRT medical residency training program will be maintaining the faculty's interest and participation in the program after the grant expires. Other challenges include the low reimbursement rates for SBIRT and the fact that SBIRT is one of many competing priorities within the already busy schedules of residency training programs.

Team Roles and Responsibilities

- **Principal Investigator:** John Muench, M.D., is currently Director of Behavioral Medicine for the OHSU Department of Family Medicine and has helped to develop and disseminate curricula for Family Medicine residents. He oversees the project, including the development of the overall SBIRT curriculum, coordinating the systems changes in the primary care clinics, and coordination of the "trainer trainings."

- **Project Director:** Jim Winkle, M.P.H., assists Dr. Muench in the logistics of developing and implementing the curriculum and coordinating the activities with the primary care clinics and trainings.

- **Project Evaluator**: Kelly Jarvis, Ph.D., participates on the curriculum development team and is responsible for data collection, data analysis, and the dissemination of findings to key stakeholders to assist in data-driven decision making for continued improvement and sustainability.

- **Project Coordinator**: Janice Hohnstein provides the project team with in-kind administrative and coordination support.

- **Residency Director, OHSU Family Medicine:** Roger Garvin, M.D., helps to lead the change of culture in the OHSU Family Medicine residency so that primary care residents will take on a new responsibility for alcohol and drug treatment needs in their patient populations.

- **Residency Director, OHSU Internal Medicine:** Joe Hardman, M.D., helps to lead the change of culture in the Internal Medicine residency so that the primary care residents will take on a new responsibility for alcohol and drug treatment needs in their patient populations.

- **Residency Director, OHSU Cascades East Family Medicine:** Joyce Hollander-Rodriguez, M.D., helps to lead the change of culture in the OHSU East Cascades Family Medicine Residency so that the Primary Care residents will take on a new responsibility for alcohol and drug treatment needs in their patient populations.

- **Residency Director, OHSU Preventive Medicine**: John Stull, M.D., helps to lead the change of culture in the Preventive Medicine residency so that the residents will understand the evidence base for SBIRT and have familiarity with the intervention in order to apply this knowledge to disease prevention, health maintenance, and wellness promotion within communities and populations.

- **Residency Director, Providence Milwaukie Hospital**: William Gillanders, M.D., helps lead the change of culture in his residency so that their Primary Care residents will take on a new responsibility for alcohol and drug treatment needs in their patient populations.
- **Curriculum Developer**: Meg Hayes, M.D., focuses on designing, implementing, and disseminating the curriculum and clinical practice system for alcohol and drug screening and assessment.
- **Research Associate**: Denna Vandersloot, M.Ed., is the primary staff assigned to work in consultation on the Primary Care Physician (PCP) Tradition Grant. Ms. Vandersloot will also serve as a networker to facilitate collaboration on this project with Oregon State Addiction and Mental Health Division and the Substance Abuse Providers Association.

Administrative Observations:

- The OHSU SBIRT team successfully engaged the Council of Residency Directors to secure buy-in and approval for SBIRT before implementing the intervention in the clinics.
- Physician assistants, nurses, and office staff are included in the SBIRT work flow.
- A percentage of the salaries of the staff champions, physician champions, and residency directors are supported by the grant.
- The project staff, residency directors, and clinic staff are enthusiastic about the SBIRT medical residency program and are invested in ensuring its success at OHSU School of Medicine.
- Physician champions and staff champions serve as primary points of contact for promoting buy-in for SBIRT and integrating SBIRT in the clinics.
- Some of the program challenges include scheduling training for residents, faculty, and staff; obtaining buy-in from physicians; and referring patients to specialty treatment.

Curriculum

Curriculum Review

The OHSU SBIRT medical residency program curriculum for faculty and clinic staff provides training in alcohol and drug use screening, brief intervention using the BNI, and referral to residents. The curriculum is supported by a very impressive training Web site that provides the entire training curriculum, complete with didactic video, slides, and an interactive component that steps through the SBIRT Oregon method for primary care clinics, role plays, video demonstrations, screening forms, tools for clinicians (e.g., readiness ruler, BNI steps, drinking limits), reimbursement information, and clinician notes.

A description of the core curriculum components for OSHU's SBIRT training program is provided below. A summary of the curriculum modules and methods of instruction are provided in Tables 1 and 2 on pages 12 and 13 of this report.

Core Curriculum

Alcohol Screening

OHSU's alcohol screening component consists of two instruments—a validated single question prescreen for at-risk alcohol use and, if a patient scores positive on the prescreen, the AUDIT.

The validated single screening question is recommended by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) to accurately identify unhealthy alcohol use in adult primary care patients 18 years of age and older.[1, 2] A different question is used for men and women, as follows:

> MEN: How many times in the past year have you had five or more drinks in a day?
>
> WOMEN: How many times in the past year have you had four or more drinks in a day?

[1] Peter C. Smith; Susan M. Schmidt; Donald Allensworth-Davies; Richard Saitz. Primary Care Validation of a Single-Question Alcohol Screening Test. Journal of General Internal Medicine. Feb 27, 2009.

[2] Peter C. Smith; Susan M. Schmidt; Donald Allensworth-Davies; Richard Saitz. Erratum to: Primary Care Validation of a Single-Question Alcohol Screening Test. Journal of General Internal Medicine. April 25, 2010.

One drink is defined as 12 ounces of beer, 5 ounces of wine, or 1.5 ounces of liquor (1 shot).

If a patient scores positive (1 or greater) on the single-question prescreen, the AUDIT (a 10-item screening instrument) is used to obtain more specific information regarding the patient's hazardous alcohol use, dependence symptoms, and harmful alcohol use.

Trainees are also provided with instruction on how to interpret the AUDIT score and assign the score to a corresponding zone of use (i.e., healthy, risky, harmful, or dependent).

The training on alcohol screening is provided through didactic lectures, video demonstrations, discussions, and an exercise that involves completing the AUDIT. The trainees are provided with a pocket-size card containing information on low-risk drinking limits for men, women, and adults over age 65, and AUDIT scores stratified by zones of use.

Drug Use Screening

The OHSU SBIRT medical residency program uses a modified version of the validated single-question test developed by Smith, et. al., to identify drug use and drug use disorders in adult primary care patients 18 years of age and older.[3] The validated question asks:

> "How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?"

Smith, et. al., define illicit drugs as marijuana, cocaine, heroin, stimulants, or hallucinogens.

The modified question used by OHSU replaces the term "illicit drugs" with "recreational drugs," as follows:

> "How many times in the past year have you used a recreational drug or used a prescription medication for nonmedical reasons?"

In the modified question, recreational drugs are defined as methamphetamines (speed, crystal), cannabis (marijuana, pot), inhalants (paint thinner, aerosol, glue), tranquilizers (Valium), barbiturates, cocaine, ecstasy, hallucinogens (LSD, mushrooms), or narcotics (heroin).

[3] Peter C. Smith; Susan M. Schmidt; Donald Allensworth-Davies; Richard Saitz. A Single-Question Screening Test for Drug Use in Primary Care. Arch Intern Med. 2010; 170(13):1155-1160

The training on drug use is provided through didactic lectures, video demonstrations, discussions, and an exercise that involves completing and scoring the DAST and assigning a corresponding zone of use.

Brief Intervention

The brief intervention component of OHSU's SBIRT medical residency training curriculum was developed by Yale University—the Brief Negotiated Interview (BNI).[4] The BNI is a short 5–15 minute counseling session that incorporates brief feedback and advice with motivational enhancement techniques to assist the patient in changing his or her drinking patterns. The product of the BNI is the patient's agreement to reduce alcohol use or its ability to cause harm. The BNI is implemented in four major steps: (1) raise the subject; (2) provide feedback; (3) enhance motivation; and (4) negotiate a plan. Each step has critical components, specific objectives, actions, and preparations. The BNI training includes role plays designed for triads so that trainees can practice each of the three roles as physician, resident, and compliance assessor. A 10-item checklist is used by the compliance assessor to rate the physician's proficiency in performing a BNI during the role plays.

Referral to Treatment

The referral to treatment component of the curriculum provides training on: (1) levels of substance abuse treatment; (2) when to make a referral; and (3) how to make a referral for a comprehensive assessment or to specialty treatment. Budget cuts in public services and the lack of resources in Portland for the uninsured have made referrals to treatment difficult, even if a patient is motivated to receive treatment for harmful and dependent substance use. There are also few referral resources in Klamath Falls, a rural area of Oregon approximately 275 miles from Portland, where the Cascades East Family Medicine Residency Clinic is located.

Residents are instructed to provide patients in need of a referral with a 24-hour helpline number that is staffed by personnel who can link the patient with appropriate services based on their level of need, readiness to change, and insurance coverage. In addition, five of the seven clinics where residents practice have social workers who can assist with referrals. Also, physicians can develop plans for the medical management of patients needing outpatient treatment. Clinic policies at each site define appropriate referral to treatment practices for the respective clinics. Specialty treatment is not currently provided onsite at the clinics; however, some of the clinics are building internal behavioral health capacity.

[4] Gail D`Onofrio, Michael V. Pantalon, Linda C. Degutis, David Fiellin, Patrick G. O'Connor, Yale University School of Medicine. The Yale Brief Negotiated Interview Manual (2005).

Tables 1 and 2 below provide a summary of the two curriculum modules. Each module section is listed, along with the respective training goals and methods of instruction.

Table 1. Module 1 – Sections, Goals, and Methods

Sections	Goals	Method
Why SBIRT?	• Describe the prevalence and morbidity of drug and alcohol misuse. • Understand that SBIRT is efficacious and cost effective. • Recognize the missed opportunities of current primary care practices to address substance misuse with patients.	Lecture, discussion
Overcoming barriers	• List physician barriers to addressing substance misuse in primary care, as well as strategies to overcome them.	Lecture, discussion
Screening	• Describe the role of clinic personnel in carrying out the SBIRT clinic method under the medical home model of primary care. • Score the annual screen and full screens, as well as understand how each is administered in the clinic. • Define the low-risk, risky, harmful, and dependent zones of use and how to correlate screening scores to these zones.	Lecture, discussion Exercise Video demonstration

Table 2. Module 2 – Sections, Goals, and Methods

Sections	Goals	Method
Communication styles	• Understand the limits of the directive style of communication on eliciting behavior change with patients. • Recognize how the guiding style of communication and principles of motivational interviewing apply to eliciting behavior change with patients.	Lecture, discussion Exercise Video demonstration
Brief intervention	• Perform the four steps of the BNI: raise subject, provide feedback, enhance motivation, and negotiate plan. • Understand the Stages of Change model. • Use the readiness ruler to assess and build a patient's readiness to change.	Lecture, discussion Role play Exercise Video demonstration
Referral to treatment	• List the different levels of substance abuse treatment. • Recommend a referral for further assessment and treatment. • Recognize medications used for alcohol and drug dependence.	Lecture, discussion

Curriculum Tools

OHSU has developed an array of tools to support the medical residency training program curriculum.

Web Site
The OHSU SBIRT Medical Residency program Web site (http://www.sbirtoregon.org.) provides a virtual learning environment for the SBIRT medical residency program and the public. The curriculum, curricular materials, and resources—including videos, role-plays, and implementation instruments—are available online.

The following tools are available at OHSU's SBIRT medical residency training program Web site:

Training Curriculum
OHSU's complete medical residency training program curriculum is available online. The curriculum is presented with video and slide sets. Each slide is accompanied by a didactic video presentation.

Pocket Card
A pocket-size reference card that summarizes the basic information taught in Module 1 and Module 2 provides: (1) low-risk drinking limits; (2) the categories of the drinking pyramid (low risk, risky, harmful, and dependent) and drinking zones; (3) AUDIT and DAST score limits for categories of drinking; (4) readiness ruler; (5) BNI steps; and (6) referral phone numbers.

Reference Sheet
A double-sided page containing information on the risks of unhealthy drinking as well as the same information that is provided on the badge card (above) has been designed for the exam room to assist clinicians in performing a brief intervention.

Online Screening Tools
Screening forms for the annual screen, AUDIT, and DAST are available.

Role Plays
The OHSU SBIRT project has developed tools for SBIRT role-play practice, including patient cases for triads involving a physician, resident, and compliance assessor.

Brief Intervention Observation Sheet
An 11-item observation sheet is used in conjunction with role plays to assess trainees' proficiency in performing a BNI. The checklist was adapted from Yale University's BNI adherence and competence scale created by D'Onofrio, et. al.

Billing Reference Card
A small billing reference card that can be used as a computer sign is available.

Demonstration Videos
Several role play videos are available that demonstrate SBIRT in practice.

Future Curriculum Enhancements

The OHSU SBIRT team is developing the following curriculum enhancements:

- Train-the-trainer materials that will be used to transition the responsibility for SBIRT training to the physician champions.
- A video collection of patient testimonies about how SBIRT has helped them. The video testimonies will be used during training to inform the residents, faculty, and clinic staff of the importance and efficacy of SBIRT.
- Data measures and results to be added to the clinical dashboard to enable residency directors and clinicians to monitor SBIRT performance and compliance.

Curriculum Dissemination

The OHSU SBIRT medical residency training program disseminates its training curriculum, videos, and resource materials electronically through its Web site. Over the last 6 months, OHSU recorded over 2,400 visits to the Web site from 420 cities located across 25 countries and 47 States. An OHSU SBIRT medical residency training presentation is also posted at the Addiction Technology Transfer Center (ATTC) Web site. The OHSU SBIRT program makes presentations and exhibits SBIRT products at conferences and meetings. A brief report written by OHSU staff will be published in the November issue of the *Journal of Substance Abuse*.

Curriculum Observations:

- The curriculum consists of two modules that provide training on a one-item alcohol prescreen, a one-item drug use prescreen, a full screen using the AUDIT and DAST, the BNI, and referral to treatment.
- A number of curriculum tools have been developed to support the curriculum.
- A well developed Web site makes the full curriculum and curricular tools available to the public. The Web site has recorded thousands of hits from the United States and over 25 countries.
- Feedback on the curriculum provided by residency directors, residents, physician assistants, and clinic staff was used to condense the curriculum to the

most concise and precise components required to perform SBIRT in a clinic setting.

- Curriculum training videos provide diverse perspectives and experiences to enhance the trainees understanding of alcohol and substance use.

Approach/Implementation

Approach

OHSU's approach to SBIRT medical residency program 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 primary care method. In order to implement this model, the OHSU medical residency program staff developed and implemented a plan to:

- Observe, analyze, and document the workflow in the residency clinics in order to identify how the SBIRT model could be integrated into the system.
- Create systems changes in the residency clinics so that the residents would be able to immediately practice their newly acquired SBIRT skills in receptive environments.
- Develop a team of clinicians, professionals, and clinic staff to implement systems changes in the clinics.

After the systems have been put in place, the SBIRT medical residency training program is implemented.

During the first 6 months after the grant award, the SBIRT medical residency program team met to observe and analyze the clinical and office processes in the residency clinics in order to develop a clinic process and curriculum that were appropriate and relevant.

The SBIRT site visit team toured three clinics where SBIRT has been implemented in the residency program—OHSU Internal Medicine Clinic, South Waterfront Clinic, and Providence Southeast Clinic.

Clinical Implementation of SBIRT

Based on an analysis of the workflow and clinic systems, the OHSU SBIRT team developed the following SBIRT implementation model for the residency clinics:

- At check-in, the receptionist hands each patient a yellow SBIRT clipboard containing the annual two-question alcohol and drug use screening form to complete. The screening form also contains two questions for depression screening.
- The medical assistant quickly reviews and scores the screening form as part of the vital signs process. If the score is positive for risky alcohol or drug use, the medical assistant gives the patient the full screening instruments (AUDIT and/or DAST) to complete.
- The physician reviews the patient's answers on the full screening form(s), adds the score for each answer to obtain a total score, and circles the patient's corresponding zone of use (healthy, risky, harmful, or dependent) at the bottom of the form.
- The physician reviews the results with the patient and provides the appropriate level of intervention. The physician records his/her name, date, and AUDIT/DAST zone on the form.
  - If the patient's zone of use is healthy, the physician commends the patient for his or her healthy practices and reminds them about healthy use levels for alcohol and to take prescription medicines as prescribed.
  - If the patient's zone of use is risky, the physician performs a brief intervention and checks off the appropriate brief intervention step boxes on the form (raised the subject, provided feedback, enhanced motivation, negotiated plan) or a box indicating that a brief intervention was not performed.
  - If the patient's zone of use is either harmful or dependent, the physician performs brief intervention, checks off the appropriate brief intervention step boxes on the form, and possibly recommends that the patient contact a helpline telephone number for a referral to treatment. If the physician makes the recommendation for referral to treatment, he/she checks a box on the form indicating that the patient was provided with the helpline telephone number.
- At the end of the visit, the physician places the screening form in a designated box for the clinic staff to retrieve and enter the data into the EMR.

The clinic implementation model is flexible so that clinics can adjust the process to accommodate their unique workflow. Physician champions advocate SBIRT with the physicians in the practice in order to build support and buy-in for the intervention and the clinic model. Staff champions oversee the screening process in the clinic.

In April 2011, focus groups were conducted separately with front desk staff and medical assistants to learn about their experiences with SBIRT in order to refine the clinic implementation approach. Feedback from the focus group session is reported in the Evaluation Findings section below.

At this time, four residency programs and seven clinics have implemented SBIRT into their practices, as indicated in Table 3 below.

Electronic Medical Record Systems

Although SBIRT has been incorporated into the EMR, the OHSU residency clinics where SBIRT is performed currently use multiple EMR systems, including Epic, OCHIN (an EPIC product for health centers), Centricity, and Meditech. This has created challenges for data collection and program monitoring. Several of the clinics are in the process of converting their systems to Epic or OCHIN (see Table 3).

An SBIRT smart set is being created that will facilitate the entry of patients' AUDIT and DAST scores, brief intervention information, physician notes, billing information, and prescription notes. The SBIRT smart set will increase ease of use, improve buy-in, and facilitate the monitoring of fidelity to the SBIRT model.

Billing

Although billing codes exist for SBIRT and are in the EMR, billing is not occurring for SBIRT services. The hospital has resisted using them because they are unfamiliar with the codes and are unsure about their appropriateness. The facility compliance departments often require additional language in the progress notes to support billing.

Implementation Challenges

The OHSU SBIRT team reported the following implementation challenges:

- Currently, an SBIRT intervention may be completed in the clinic but may not be recorded in the EMR.
- The front desk staff's "success" on their step of the process is contingent on the medical assistants' successful entry of the data. Monitoring of the entire process is important to full delivery and documentation of the intervention.

- Allied staff indicated that they would like more feedback on how well they are performing their role in SBIRT.
- Physician attitudes about SBIRT influence staff's attitudes about the process and the importance of their role.
- Staff report needing a better system to document when an annual screen is completed. They have adapted their current systems, but their approaches are all unique to their specific clinics.
- Clinicians cite limited time available to address SBIRT.
- Codes exist for SBIRT; however, levels of reimbursement are inadequate and compliance departments often require additional language in the progress note in order to bill for SBIRT.

Table 3. OHSU Residencies, Clinics, and EMR Systems

Residency	Clinic	Location	EMR
OHSU Family Medicine	1. Richmond	Portland	OCHIN (EPIC)
	2. Center for Health & Healing		EPIC
	3. Gabriel Park		EPIC
OHSU Internal Medicine	4. Internal Medicine	Portland	EPIC
Providence Family Medicine	5. Providence Milwaukee	Milwaukee	Centricity → EPIC
	6. Providence Southeast	Portland	
OHSU Family Medicine	7. Cascades East	Klamath Falls	Meditech → OCHIN

Residency Training Implementation

The OHSU SBIRT medical residency training curriculum is designed for residents, faculty, medical assistants, and clinic staff with training in SBIRT. Training in SBIRT is provided by a member of the SBIRT project team—the Project Director and two curriculum faculty members who are skilled in motivational interviewing.

Medical Residents

All first-year residents in Family Medicine, Internal Medicine, and Preventive Medicine receive 3 hours of training in SBIRT. A total of 260 residents have already been trained since the start of the program. The SBIRT program expects to train a total of 180 residents in all of the residency programs over the next 3 years, as shown in Table 4 below.

Table 4. Number of Residents to be Trained in Each Residency

Residency	Number of Residents to be Trained Each Year	Total Number of Residents to be Trained
Internal Medicine	30	90
Family Medicine	12	36
Providence	8	24
Cascade	8	24
Preventive Medicine	2	6
Total	60	180

The SBIRT training is provided to residents in groups of up to 12 trainees at a time. The curriculum content is organized into two modules presented in two separate 90-minute training sessions. Module 1 provides didactic instruction on the evidence base for SBIRT. Module 2 provides training on the components of SBIRT and practice in SBIRT skills. Second- and third-year residents must participate in a mandatory SBIRT refresher course. Module 2 provides the content for the refresher course. The training is supported by a combination of lectures, discussions, video demonstrations, and role plays. See Tables 1 and 2 for a summary of the goals and methods of the SBIRT training curriculum.

Scheduling is described as a major challenge for resident training. It has been difficult to identify time when groups of 12 residents can be scheduled for the SBIRT training. For example, during the first year of SBIRT training, Internal Medicine, which has 60 residents, could schedule only groups of 4 residents to be trained at one time. It required a great deal of persistence to train all of the residents. However, all of the Internal Medicine residents were trained.

Faculty Training

The faculty receives an abbreviated 30-minute version of the SBIRT training. Faculty training has also been a challenge. Most of the faculty have not been able to set aside enough time to properly learn how to perform brief intervention.

Medical Assistant and Office Staff Training

The training provided for the medial assistants and office staff includes an overview of SBIRT and focuses on the SBIRT process in the clinic workflow. Staff turnover and associated retraining presents the greatest challenge for sustaining SBIRT knowledge and workflow among medical assistants and office staff.

Curriculum Fidelity

A two-part *SBIRT Curriculum Fidelity Rating Sheet* is used by an observer, usually the evaluator, to assess the trainer's adherence to the curriculum objectives. The rating sheet documents: (1) the amount of time required to present each subcomponent of the curriculum; (2) instructional objectives; (3) the use of related slides; (4) how well the instructional objectives were covered; and (5) any rater comments. The rating sheet will be used to assess physician champions who will be trained to teach the SBIRT curriculum beginning next year.

Training Challenges

The SBIRT team identified the following challenges related to SBIRT training:

- Most faculty do not or cannot set aside enough time to properly learn to perform a brief intervention.
- It is difficult to measure the quality of the brief intervention without routine objective structured clinical examinations (OSCEs) or standardized patients.

Sustainability

OHSU's plan for sustainability involves maintaining systems change in the residency clinics whereby SBIRT becomes a normalized and embedded part of the workflow. In

order to effect systems change in the clinics, the SBIRT program worked with the residency directors and clinic staff to integrate SBIRT into the workflow and the EMR. Physician champions and staff champions are also being trained using a train-the-trainer approach so that they can continue to promote and perpetuate SBIRT in the clinics once the grant expires. The physician champions will be responsible for training the residents next year.

The OHSU SBIRT team has also implemented system reminders and periodic reports to support the sustainability of the SBIRT medical residency program. A tickler in the EMR creates a pop-up in patient records to remind the clinic staff to perform an annual alcohol and drug screen. The evaluator generates detailed quarterly reports for each clinic that provide aggregate SBIRT data for residents and nonresidents, as well as a report that summarizes the SBIRT performance of all clinics.

The SBIRT team is working to have SBIRT service data results added to the clinical dashboard, which will enable the physician and residency director to monitor SBIRT performance and compliance. One residency director advised that having SBIRT added to the dashboard will put it on par with other clinical practices.

Some of the challenges to SBIRT sustainability identified by the OHSU SBIRT program and clinical staff include uncertainties regarding billing, lack of physician time to perform brief interventions and referrals, and maintaining the SBIRT Web site after the grant expires.

Approach/Implementation Observations:

- OHSU implements SBIRT within a team-oriented medical home model of primary care. Within the OHSU model, the front desk staff, medical assistant, and clinician together carry out the SBIRT primary care method.
- Systems changes were made in the residency clinics prior to the residents' training so they would be able to immediately practice their newly acquired SBIRT skills in receptive environments.
- The clinic implementation model is flexible so that clinics can modify the process to accommodate their unique workflow.
- All first-year residents in Family Medicine, Internal Medicine, and Preventive Medicine receive 3 hours of training in SBIRT.
- Physician champions advocate SBIRT with the physicians in order to build support and buy-in for the intervention and the clinic model. Staff champions oversee the screening process in the clinic.
- Although billing codes exist for SBIRT in Oregon and are in the EMR, billing is not occurring for SBIRT services. The facility compliance departments often require additional language in the progress notes to support billing.
- Scheduling is a major challenge for SBIRT training.

Data Collection and Evaluation

The OHSU SBIRT medical residency training program conducts a process evaluation to assess the medical residency training program's progress in training residents and integrating SBIRT into the clinic processes, as well as the clinic team's perceptions of the efficacy of SBIRT. An outcome evaluation assesses the impact of training on residents' attitudes, knowledge, and behavior related to SBIRT. The outcome evaluation includes a knowledge assessment pre/posttest, attitudes and behaviors survey, and a trainee Government Performance and Results Act (GPRA) satisfaction survey.

Data Collection

The evaluation assesses: (1) training satisfaction; (2) knowledge and attitude change; and (3) clinical implementation. Multiple data collection instruments are administered to trainees, including the CSAT Training Satisfaction Surveys (baseline and followup),

SBIRT Curriculum Knowledge Test (pretest and posttest), and Attitudes and Behaviors Surveys (pretest, 3-month posttest, annual posttests thereafter), as indicated in Table 5 below. Data are also extracted from the clinic EMR systems to assess the clinical implementation of SBIRT.

Table 5. Assessment Domain and Data Collection Instruments

Domain	Instruments
Training Satisfaction	• CSAT Baseline Training Satisfaction Survey • CSAT Followup Training Satisfaction Survey
Knowledge, Attitude, and Behavior Change	• SBIRT Curriculum Knowledge Pretest • SBIRT Curriculum Knowledge Posttest • Attitudes and Behavior Pretest Survey • Attitudes and Behavior Posttest Survey (3-months posttraining) • Attitudes and Behavior Posttest Survey (1-year posttraining) • Attitudes and Behavior Posttest Survey (2-years posttraining)
Clinical Implementation	• Data extracts from the EMR • Focus groups

For the purposes of reporting the CSAT training satisfaction data as required by GPRA, a training event is defined as the completion of Modules 1 and 2 of the training curriculum. Typically a training event is completed in two 90-minute sessions. The knowledge and attitudes/behavior pretests are administered to the trainees prior to the start of training. The CSAT Baseline Training Satisfaction Survey is administered at training completion, along with the knowledge posttest. The CSAT Followup Training Satisfaction Survey is administered 30 days later. The attitudes and behavior posttests are administered 3 months after training and annually thereafter.

The evaluator extracts quarterly data from each clinic EMR system to assess resident and nonresident progress in the clinical implementation of SBIRT. Some of the data extracted include the number of patients who were seen, prescreened, given the AUDIT and DAST, received a brief intervention, and were advised to seek treatment. Each clinic is provided with its own detailed quarterly summary of clinic implementation processes. The report is part of a continuing quality improvement process so that clinicians and staff can make improvements where needed. The evaluator also prepares and distributes an

aggregate quarterly summary that compares clinics on their implementation of SBIRT in the following four areas:

- Percentage of patients eligible for an annual screen who received one
- Percentage of patients who scored positive on the annual screen who received a full screen
- Percentage of patients who scored into Zone II, III, or IV on the full screen who received a brief intervention
- Percentage of patients who scored into Zone IV on the full screen who received a referral to treatment

Focus Groups

The evaluator plans to conduct focus groups periodically throughout the grant period to identify implementation challenges and obtain recommendations on how to improve training and the clinical implementation process. Thus far, focus groups have been conducted with medical assistants and front desk staff.

Some of the challenges that the medical assistants identified included the following:

- Time constraints
- Patients not completing the forms or not giving them to the physician
- Not having the opportunity to see the screening scores/zones for patients in clinics where the instrument is scored electronically
- Uncertainty about whether the physician actually performed a brief intervention; consequently tracking data were not entered into the EMR
- Lack of document tracking and data entry after the form is handed to the patient
- Physicians not completing their part of the SBIRT process when the medical assistants have completed their own SBIRT responsibilities

The medical assistants provided the following insights and recommendations:

- Tasks required by The Joint Commission or the clinic were usually completed and not overlooked
- Include flags (alerts), prompts, and a data-entry template for the EMR
- Additional training is needed on how to approach patients who have substance use issues

- Accountability is needed for all who have responsibility for SBIRT in the clinic (i.e., front desk, medical assistant, and physician)

Some of the challenges that the front desk staff identified included the following:

- Turnover in front desk staff
- At one clinic, many of the patients do not complete the form
- Competing priorities
- Fluctuations and changes in paperwork requirements
- Lack of followthrough by the medical assistants who do not enter data into the EMR
- Different computer systems are used to identify patients to be screened and to document screening results (lack of good electronic communication between front office and back office staff)
- Having to make up their own tracking procedures to identify patients who require screening
- Having so many tasks to perform that they forget to enter the test results

The front desk staff provided the following insights and recommendations:

- Additional training is needed on what SBIRT is and what to expect and how to respond to patients if resistance is encountered when giving them the screening form.
- Include flags (alerts), prompts, and a data entry template for the EMR.
- Create a single button in the EMR that brings up the SBIRT template.
- The champions should monitor and improve SBIRT implementation activities and act as a “cheerleader” for SBIRT.
- A prompt is needed so that the medical assistants know that the patient should be given the screening form.

Evaluation Findings

The results of the pre- and post-surveys for SBIRT knowledge and attitudes are provided below.

Knowledge Assessment

Prior to the training, residents answered less than half of the questions correctly, with an average test score of 46.7 percent. Residents knew less of the Module 1 materials (mean score of 38.7 percent) than Module 2 material (mean score 55.3 percent). After the training, resident's overall knowledge increased to 75.3 percent. Knowledge of Module 1 material increased to 79.4 percent and Module 2 material increased to 70.9 percent.

Attitudes Assessment

Residents were asked to rate themselves on their effectiveness, proficiency, and success in performing motivational interviewing and brief intervention. In terms of effectiveness, there was a substantial increase in the number of residents who rated themselves as good and a substantial decrease in the number who felt their skills were poor.

With regard to proficiency, on a scale from 1 (not proficient at all) to 6 (very proficient), the mean scores among residents for motivational interviewing proficiency increased from 2.93 to 3.81 and from 2.40 to 3.75 for brief intervention proficiency. Overall, at 3 months after training, residents reported feeling significantly more proficient with their motivational interviewing and brief intervention skills than they did before training, and these differences persisted at 1 year.

On the self-rating scale of success the mean scores showed no statistically significant change over time from baseline to 3-month followup. The largest proportion of responses was in the "not sure" category.

Data Collection and Evaluation Observations:

- The process evaluation assesses progress in training residents, integrating SBIRT into the clinic processes, and the clinic team's perceptions of the efficacy of SBIRT.
- The outcome evaluation assesses the impact of training on residents' attitudes, knowledge, and behavior related to SBIRT.
- As part of the continuing quality improvement process, data are extracted quarterly from each clinic EMR system to determine progress in the clinical

implementation of SBIRT.

- Focus groups were conducted with medical assistants and front office staff to learn about their respective roles in the SBIRT implementation process, experiences in that role, thoughts about implementation procedures, and attitudes regarding substance use screening in their clinics.
- OHSU has had difficulty tracking the actual number of screenings and brief interventions that are being performed because of inconsistent reporting in the EMR.

Program Area Summaries

On Day 1, the SBIRT site visit team met with the director of the OHSU Family Medicine Residency. On Day 2, the site visit team participated in a group meeting with the Director of the Providence Family Medicine Residency, the Director of the Preventive Medicine Residency, and other clinic staff. Summaries of the meetings are provided below.

OHSU Family Medicine Residency

Participants: Dr. Roger Garvin, Director of OHSU Family Medicine Residency; Jim Winkle, SBIRT Project Director

Observations:

Major topics of discussion included: (1) SBIRT training; (2) integrating SBIRT into the EMR; (3) billing; (4) challenges; and (5) recommendations.

The SBIRT site visit team met with Dr. Roger Gavin on October 20, 2011, at the SBIRT program office at Emma Jones Hall on the campus of OHSU. Dr. Garvin has a unique vantage point from which to view SBIRT in the OHSU Family Medicine clinics. As the Director of the OHSU Family Medicine Residency, he oversees the Family Medicine clinics where SBIRT is practiced. He has had the opportunity to observe the systems changes that have been implemented in the clinics and to obtain feedback from the physicians, medical assistants, and front office staff on the implementation process.

Dr. Garvin indicated that SBIRT has been integrated with depression screening, and the residents see the usefulness of SBIRT. The nurses have bought into the process and want to make it successful. The medical assistants and full-time office staff help out and provide support as part of the system. He mentioned that the effort that the SBIRT staff

took to understand the process in the clinics and to integrate SBIRT in the EMR helped greatly. Dr. Garvin noted that one of the significant challenges has been time—specifically the time required for training and performing and documenting SBIRT in the clinics.

Dr. Garvin mentioned that initially the training required 16 hours. However the reduction of training time from 16 hours to 3 hours and the development of curriculum tools have helped to resolve the issue. However, faculty training is a challenge because most of the faculty has part-time status and scheduling training is very difficult. He indicated that repetition of training helps. Dr. Garvin recommended that SBIRT training start in medical school; nuances in medicine are then taught in graduate medical education.

Dr. Garvin is working with the clinics to reduce barriers to the acceptance of SBIRT. He mentioned that the residents are concerned about what they will uncover when they screen for alcohol and substance use and, more importantly, what they will need to do about it. For example, the residents are concerned that a positive prescreen will require a series of SBIRT procedures that will take time from the original issue that the patient presented with for the clinic visit. He suggested that training needs to emphasize that SBIRT can be done in a short period of time and is effective. The residents also view SBIRT as one more thing that they are not paid to do. Although the billing codes have been activated in Oregon and are in the EMR system, there is reluctance on the part of the billing compliance department to use them. Billing audits are conducted, and if the documentation is incorrect or lacking, billing will not occur. If billing does not occur, the physicians will be reluctant to do SBIRT.

Dr. Garvin also cited a paper by Yarnell, et. al., that indicated that to deliver all the preventive services recommended by the U.S. Preventive Services Task Force (USPSTF) to an average panel of patients, family physicians would need to spend 7.5 hours of every working day on prevention.[5] Dr. Garvin said that it is unrealistic to expect physicians to do SBIRT alone. He also advised that strategically placing SBIRT on the dashboard and adding reminders in the EMR will help.

Finally, Dr. Gavin cautioned that SBIRT sustainability will not happen without someone to push it.

[5] Yarnell, K.S.; Pollack, K.I.; Ostbye, T.; Krause, K.M.; Michener, J.L. Primary care: is there enough time for prevention? American Journal of Public Health 2003; 93:635–41.

Providence Family Medicine/OHSU Preventive Medicine

Participants: Dr. Bill Gillanders, Residency Director, Providence Family Medicine; Dr. Peter Grover, Clinical Supervisor for the Adult Inpatient Psychiatric Department, Providence Family Medicine; and Dr. John Stull, Residency Director, OHSU Preventive Medicine

Observations:

Major topics of discussion included the following: (1) workflow in the residency clinic; (2) the EMR system; (3) patient referrals; (4) billing; (5) challenges; and (6) recommendations.

On October 21, 2011, the SBIRT site visit team traveled to the Providence Southeast Clinic to meet with Dr. Bill Gillanders, Dr. Peter Grover, and Dr. John Stull. The discussion began with some background information regarding the two Providence Family Medicine clinics that have integrated SBIRT into their practices—Providence Milwaukee Clinic and Providence Southeast Clinic. These residency clinics are pilots for behavioral health integration in the health clinics in Oregon consistent with the model of the patient-centered medical home and healthcare reform. The behavioral health model for SBIRT in these clinics requires that a behavioral specialist perform brief intervention and provide a warm handoff to the clinician. Referrals are also managed by the behaviorist. If the pilot is successful, this model will be expanded to other sites in Oregon. The Providence clinic currently has its own addictions service system and operates a helpline.

The site visit team was provided with a demonstration of how SBIRT is documented in the EMR system. At check-in, the front office staff checks the EMR to see if the patient has been screened and the date of the last screen. If the patient is due for an annual screen, the front office staff provides the patient with the prescreening instrument to complete at check-in. If the prescreen is positive, a medical assistant reviews the prescreen and administers a full screen using the AUDIT or DAST. The medical assistant scores the AUDIT/DAST and enters the patient's score and zone of use in the EMR. The behaviorist who performs the brief intervention checks off the BNI steps performed. The EMR system alerts the person entering the data with a prompt for each step. The residency director indicated that billing for SBIRT is not really profitable. They mentioned that it takes more time to bill than to do the work.

Some of the challenges to SBIRT at the Providence medical residency program are that the residents and clinic staff view the intervention as an additional responsibility that has no clear priority among the many other tasks they must perform. In addition, staff turnover creates a gap in training and supervision for the new hires.

The residency directors and staff provided some recommendations for improving SBIRT for the residency program. These recommendations include the following:

- A literature review that provides an evidence base for the clinical implementation of SBIRT
- The prioritization of prevention interventions across the population base; many preventive services have been recommended by USPSTF; the served recommendations need to be prioritized so that physicians and behaviorists know the priority
- Information about what is working and not working with SBIRT in other locations
- Physicians need to work at the top of their licensure; physicians should be informed of patients' SBIRT status, but not deliver the intervention

Summary of Onsite Observations

The site visit team identified the following key topics during the meetings and discussions held during the 2-day site visit:

Summary of Onsite Observations

- OHSU's approach to SBIRT medical residency program implementation is designed to accommodate the patient-centered medical home model of primary care.
- Systems changes were made in the clinic workflow and EMRs to facilitate the integration of SBIRT in the clinics prior to the completion of the residents' training.
- Residents have been inconsistent in documenting SBIRT activities in the EMR, making tracking and monitoring difficult.
- Some of the program challenges include scheduling training for residents, faculty, and staff; obtaining buy-in from physicians; and referring patients to specialty treatment.
- Billing codes exist for SBIRT in Oregon and are in the EMR, but billing is not occurring for SBIRT services. Facility compliance departments often require additional language in the progress notes to support billing.
- Possible TA:
  - A review of the literature to provide an evidence base on SBIRT process implementation
  - Techniques for performing brief interventions on patients who use marijuana when the literature is mixed around its harmful effects
  - More precise information screen for prescription drug and opioid abuse
  - Information about what is working and not working with SBIRT in other locations