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## **SBIRT Service Design**

**Medical Residency:  
University of Pittsburgh**

## **Service Design Site Visit Report Medical Residency: University of Pittsburgh**



Prepared by JBS International, Inc. and Alliances for Quality Education, Inc.  
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# Service Design Site Visit Report

## Medical Residency: University of Pittsburgh

<b>Grantee Name</b>	University of Pittsburgh
<b>Address</b>	2100 Wharton Street, Suite 720C Pittsburgh, PA 15203
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### Grantee Project Team Members Visited

#### University of Pittsburgh SBIRT Medical Residency Project Team

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William Jonjulio, M.D., Medical Director and Chair, Council of Residency Directors and Project Training and Implementation Team

Carl Chudnofsky, M.D., Chair, Project Training and Implementation Team

Adam Gordon, M.D., Chair, Curriculum Committee and Co-Chair, Evaluation Committee

Bradley Miller, D.O., Chair, Curriculum Committee

Melinda Campopiano, M.D., Chair, Curriculum Committee

Michael Melczak, Ph.D., Lead Evaluator and Chair, Evaluation Committee

Marleen Bruce, B.S., C.A.C., SMaRT Training Coordinator

Robert E. Griffin, M.B.A., Assistant Director of Distance Learning

Michael Keyes, M.C.S.D., Lead Web Site Development & Maintenance

Levent Kirisci, Ph.D., Statistician

Randall Kolb, M.D., Program Director UPMC Shadyside Family Medical Residency

Shari Holland, M.A., L.P.C., Champion, McKeesport Family Medicine Residency

Patricia McGuire, M.D., Faculty Liaison for SMaRT Project

Randall Smith, Ph.D., Senior Associate Dean, School of Pharmacy

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# Overview and Summary of Findings

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## 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 SAMHSA. Assessment of the University of Pittsburgh's SBIRT medical residency training program model, curriculum, training methods, implementation, and program evaluation was completed by:

- Meeting onsite with the principal investigator/project director, medical director, curriculum chair, dean, residency directors, program champions, training coordinator, distance learning staff, faculty, clinical staff, residents, evaluator, and Web site developer
- Conducting conference calls with residency directors
- Reviewing curriculum components and materials (paper and electronic)
- Visiting family medicine residency clinical sites
- Meeting with the Web-based interactive training developers—MedRespond, LLC

On February 16–17, 2011, the site visit team met with the University of Pittsburgh's SBIRT Medical and Residency Training (SMaRT) Project and visited clinical sites to gain a better understanding of the SBIRT medical residency training program model, curriculum, training methods, implementation, and program evaluation.

**Day One, February 16, 2011:** The site visit team participated in four meetings with the SBIRT project team and visited two family medicine clinical sites. The meetings took place held at the University of Pittsburgh School of Pharmacy, Program Evaluation & Research Unit (PERU). During the morning, the site visit team received an introduction to the SMaRT Project's Web site and attended a brief orientation on the program and its vision, goals and objectives, curriculum, participating programs, implementation protocols, and evaluation. The orientation established the framework for the site visit. Following the orientation, the site visit team joined the SMaRT Project team—the Principle Investigator/Project Director, Medical Director, Training Coordinator, and Lead Evaluator—to discuss the SBIRT training program with a focus on understanding progress to date, status of plans, current implementation, barriers and facilitators to implementation, and lessons learned. Topics of discussion included program background and context, program model, curriculum components, faculty training,

residency implementation, dissemination model, and sustainability planning. The site visit team also met with members of the Council of Residency Directors to learn about the council's involvement with the curriculum and training program.

During the afternoon of day one, the site visit team visited the University of Pittsburgh Medical Center (UPMC) McKeesport Family Medicine Residency to meet with faculty and residents. The team returned to PERU to participate in meetings with the SMaRT Curriculum Chair and the Faculty Liaison for the UPMC St. Margaret Family Medical Residency.

**Day Two, February 17, 2011:** On the morning of February 17, the site visit team met with the Senior Associate Dean of the School of Pharmacy. The team also viewed videos of trainings provided to the UPMC General Internal Medicine (GIM) residents and the Williamsport Hospital Family Medicine Residency and discussed the curriculum and training program with some of the GIM and Williamsport residents and Champions.

During the afternoon of day two, the site visit team met with the Lead Evaluator to discuss the project evaluation design (process and outcome assessments), evaluation activities and progress to date, barriers and facilitators to evaluation, lessons learned, and to review any preliminary data. Topics covered included: monitoring residency performance, process assessment, and outcome assessment. The afternoon also included a meeting with MedRespond, LLC—the developer of an artificial intelligence training application for the SMaRT Project.

## Project Overview

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The School of Pharmacy's Program Evaluation and Research Unit operates the University of Pittsburgh's SBIRT Medical and Residency Training (SMaRT) Program. The SMaRT Program is currently in year 3 of its 5-year SAMHSA SBIRT grant. The project's two overarching goals are to (1) train medical residents in SBIRT practices effectively and (2) disseminate SBIRT practices throughout the medical community. The SMaRT Program serves patients in two major metropolitan areas, Pittsburgh and Philadelphia, and one non-metropolitan area, Williamsport. The residency sites include the University of Pittsburgh Medical Center (UPMC) Family Medicine Residencies in St. Margaret's, Shadyside, and McKeesport; the University of Pittsburgh School of Medicine, Division of General Internal Medicine (GIM); the Albert Einstein Medical Center (Philadelphia); and Susquehanna Health—Williamsport Hospital and Medical Center.

Residents in five primary care residency programs will receive training, including: (1) Family Medicine, (2) General Internal Medicine, (3) Emergency Medicine, (4) Obstetrics/Gynecology, and (5) Pediatrics. Residents are receiving training in all primary care specialty areas except Emergency Medicine. Over the 5-year period, the University of Pittsburgh's SMaRT program expects to train 1,147 residents. As of February 10, 2011, 49 faculty champions and 105 residents had received training.

The University of Pittsburgh's SMaRT Project has developed a 3-tier, multi-modal curriculum. Level 1 provides basic SBIRT training. Continuing Medical Education (CME) credits have been acquired for basic training for community preceptors. Level 2 provides training modules for specific specialties and populations. Level 3 provides training for faculty and advanced learners. Screening and brief intervention proficiency checklists have been developed to assess the brief intervention and motivational interviewing skills of residents and attending physicians.

Department faculty champions are responsible for serving as the primary point of contact for the residency's SMaRT project, implementing the curriculum, and training. A Web site and a plethora of curricular tools and resources support the curriculum.

The SMaRT Project's evaluation team is conducting process and outcome evaluations. The process evaluation assesses the SMaRT Program's progress in meeting its goals and objectives. The outcome evaluation will assess the impact of training on residents' attitudes, knowledge, and skills related to SBIRT.

An earlier SAMHSA SBIRT grant to Pennsylvania State laid the groundwork for the activation of Medicaid billing codes for SBIRT in the State, which the University of

Pittsburgh Medical Center is using. In addition, the SMaRT program is currently participating in a pilot study of the cost effectiveness of SBIRT.

### **Project Accomplishments to Date**

The University of Pittsburgh's SMaRT program accomplished several program activities since initiation of the grant. A summary of major accomplishments to date include the following:

- Development, evaluation, and refinement of a core curriculum that can be applied across specialties
- Development of additional curriculum components that provide specialized training for specific populations and primary care settings as well as training for faculty and advanced learners
- Commencement of training for four medical specialties—Family Medicine, General Internal Medicine, Obstetrics/ Gynecology, and Pediatrics
- Acquisition of CME credits for community preceptors
- Development of curricular tools for SBIRT champions, faculty, residents, and guests
- Development of SBIRT protocols for training, implementation, testing, evaluation, and clinical application
- Development of grant-related products such as papers, abstracts, posters, and a resource guide
- Development of evaluation tools and checklists to assess residents' proficiency in SBIRT
- Development and launch of the resourceful "Get SMaRT" Web site
- Initiation of a HCPCS Code pilot study as part of SBIRT sustainability efforts

## **Program Strengths**

### **Organizational Strength**

The University of Pittsburgh's SBIRT medical residency program has benefited greatly from the previous SBIRT program experience of the Principal Investigator, Dr. Jan Pringle. Dr. Pringle served as lead evaluator for an earlier Pennsylvania State SBIRT grant. Her experience with and understanding of SAMHSA's larger SBIRT grant program has been very beneficial to the University of Pittsburgh's SBIRT medical residency program. Dr. Pringle quickly established a highly functional organizational structure (staff, committees, Council of Residency Directors, etc.) and a framework for developing the training program and curriculum. In addition, the School of Pharmacy is a welcome



home to the SBIRT project and fully supported by the administration and staff of the Program Evaluation and Research Unit. The highly competent and creative project staff is enthusiastic about their work for the SMaRT project.

The SMaRT project effectively utilizes its committee structure to accomplish its goals and objectives. The committees interact, collaborate, and exchange information effectively. The Executive Committee is responsible for final administrative and operational decisions. The Advisory Council provides feedback on project implementation and dissemination and advocates for SBIRT training and change practices at the policy-making level. The Council of Residency Directors (CRD) assists with program development and implementation, reviews and provides feedback on the curriculum and effectiveness of the evaluation. The Project Training and Implementation Team provides the training component of the SMaRT project and ensures that resident and faculty training is implemented effectively. The Curriculum Committee works with the CRD to ensure that curriculum implementation is effective within each site, and works on an ongoing basis with the evaluation team to assess residents' feedback on the curriculum. The Evaluation Committee assesses the effectiveness of SBIRT implementation and evaluates performance and outcomes. The Policy Sub-Group advocates for policies that further systems change for SBIRT.

### **Faculty Strength and Buy-In**

Medical school faculty who participate on the various SMaRT Project committees and who serve as Champions were instrumental in garnering buy-in from other medical school faculty in the early stages of the project's development. The faculty has also been involved in evaluating, revising, and packaging the curriculum to accommodate physician learning styles and departmental training requirements.

### **SMaRT Champions**

The University of Pittsburgh SMaRT program utilizes a physician implementation model. Each residency site must designate at least one faculty champion to train residents and facilitate the integration of the SBIRT into clinical practice. Faculty champions are funded.

### **Scholarly Papers and Presentations**

SMaRT project faculty, staff, and residents are encouraged to develop scholarly papers, posters, and presentations. Several abstracts, papers, posters, and presentations have been developed and delivered at professional meetings.

### **Three-Tier, Multimodal Curriculum**

The SMaRT curriculum is structured on three levels: (1) foundational training in basic principles of SBIRT (core), (2) focused training for medical specialties and on populations, and (3) faculty/advanced training. The curriculum committee has also developed methods for training that are flexible and adaptive to unique residency program needs. The SMaRT curriculum was designed to be delivered in various methods, including face-to-face and Web-based slide presentations and didactic lectures, video, and role-play resulting in dynamic trainings intended to improve resident knowledge and skill development.

#### **“Get SMaRT Web site”**

The “Get SMaRT” Web site provides a virtual learning environment for the medical residency program. The Web site houses the curriculum, quizzes and other curricular materials and resources, surveys, evaluation instruments, and presentations.

### **SBIRT Program Sustainability**

Medicaid billing codes for SBIRT have been activated at UPMC for third-party payers, including Gateway, Highmark, and Unison. In addition, the SMaRT Project is working with RTI on a pilot study to determine if activation of the Medicaid SBIRT-associated HCPCS codes can result in cost savings to the Commonwealth of Pennsylvania.

## **Program Challenges/Barriers**

### **Time/Scheduling**

Finding time to schedule training for residents, faculty, and community preceptors has presented logistical challenges. Web-based interactive training will provide the flexibility that faculty, residents, and preceptors need to address this challenge.

### **Billing**

Three UPMC third-party payers have activated the Medicaid billing codes for SBIRT at UPMC—Gateway, Highmark, and Unison. However, the family medical residency programs have not begun to bill for these services. The programs are concerned that under the Uniform Policy Provision Law (UPPL) patients might not receive reimbursement for costs incurred when an accident is a result of the insured patient’s alcohol or substance use intoxication. In addition, the faculty indicated that 42CFR might impede record sharing across hospitals and counties. The medical residency programs would like to resolve these issues so that they can begin to bill for services.

## Verifying clinical practice

The residencies would like to (1) verify that the residents are actually screening and performing brief interventions real-time in the family health centers and (2) understand how the residents are using it in the patient population.

## Team Roles and Responsibilities

- **Principle Investigator/Project Director:** Dr. Janice Pringle (Ph.D.) is responsible for all final administrative and operational decisions related to the project. Dr. Pringle serves as the primary contact person with SAMHSA and oversees all reporting to SAMHSA, the grant budget, and coordinates grant activities internally at PERU and with external partners (e.g., Baylor College of Medicine, Mercer University School of Medicine, and the Department of Welfare Office). Dr. Pringle chairs both the Executive Committee and the Advisory Council and participated in the various committees/teams that make up the project.
- **Medical Director:** Dr. William Jonjulio oversees program development and implementation and ensures effective implementation for residents and faculty. He also reviews and provides feedback on the curriculum and the evaluation. Dr. Jonjulio chairs the Council of Residency Directors. He also chairs the Project Training and Implementation Team along with Dr. Carl Chudnofsky.
- **Curriculum Committee Chairs:** Dr. Adam Gordon, Dr. Bradley Miller, and Dr. Melinda Campopiano work with the SMaRT Curriculum Committee to design, test, and refine an SBIRT curriculum for residents and faculty that is evidence-based and adaptable to the unique needs of the various residency programs. The Curriculum Committee Chairs coordinate efforts to ensure that the curriculum is effective within each site and work on an ongoing basis with the evaluation team to assess residents' feedback on the curriculum.
- **Lead Evaluator:** Dr. Michael Melczak, Ph.D. is responsible for the development and implementation of the evaluation protocol for the SMaRT project. He is also in charge of assessing the effectiveness of SBIRT implementation and evaluating SMaRT project performance and outcomes. He works along with the statistician, Dr. Levent Kirisci (PhD), and chairs the Evaluation Committee along with Dr. Adam Gordon.
- **Lead Web Site Development & Maintenance:** Michael Keyes, MCSD, is responsible for the development and maintenance of the Web site as well as

tracking progress and reporting to the various committees and Champions and Residency Directors.

- **SMaRT Training Coordinator:** Marleen Bruce, B.S., CAC, coordinates the implementation of the SMaRT program in the various residencies, and assists with monitoring adherence to the implementation and training protocols.

#### Administrative Observations

- The Principal Investigator and team members had prior knowledge of and experience with SBIRT from a previous Pennsylvania State SBIRT grant. This knowledge and experience base provided a strong launch for the SMaRT project and has provided a foundation for the furtherance of SBIRT sustainability efforts for the State (i.e., Medicaid billing pilot study) and evidence-based practices (i.e., validation of screening and motivational interviewing proficiency tools).
- The SMaRT Project committee structure is highly effective. The committees collaborate and exchange information critical to the development and refinement of the project processes, curriculum, training and clinical implementation, and evaluation.
- The project staff, dean, champions, and faculty all appear to be enthusiastic about the SBIRT medical residency program and invested in ensuring its success at the University of Pittsburgh.
- SBIRT is being implemented in clinical practice in four Pittsburgh communities and in Philadelphia.

# Curriculum

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## Council of Residency Directors

The site visit team met with representatives from the Council of Residency Directors on February 16, 2011, to learn about their role in the development of the SMaRT curriculum. Physicians from each participating site and a representative of the Family Medicine Education Consortium serve on the Council of Residency Directors. The Council's role is to provide program oversight and to review and approve the curriculum prior to its submission to the Executive Committee. The Council approves any proposed curriculum adaptations for implementation at the residency sites as well as curriculum enhancements. The Council also monitors the effectiveness of the curriculum and program outcomes through the evaluation. The Residency Directors indicated that time is the major challenge. They expect the automation of the curriculum should help to increase the effectiveness of training and residency competence in SBIRT.

## Curriculum Review

The site visit team reviewed the second version of the SMaRT curriculum. The first version of the curriculum was very comprehensive; it contained 10 modules. The first curriculum was implemented in two UPMC family residency programs. The feedback provided by the champions and residents indicated that the curriculum was too detailed and took too much time from other didactic hours. The first version of the curriculum was implemented at two family residency programs. The feedback provided by the champions and residents indicated that the curriculum was too detailed and took too much time from didactic hours.

The curriculum committee revised the curriculum by (1) eliminating redundancies; (2) determining information that should be considered core SBIRT material versus material for more advanced/specialty-specific study; (3) reorganizing training material into five modules that can be presented in a one-hour teaching slot; and (4) including natural stopping points in the modules so that the training material can be presented in shorter intervals over longer periods of time.

The curriculum committee also learned that the video lectures were inconsistent with the learning style of the physician audience. The physicians were not accustomed to viewing pictures and videos in the lectures. The video lectures were determined to be too passive; consequently, they were removed.

The revised version of the curriculum was packaged in two forms—a PowerPoint presentation with content containing key verbiage for the lecturer, notes, and a handout version for the trainee; and a self-guided version.

The University of Pittsburgh's SBIRT Medical and Residency Training (SMaRT) Program has developed and implemented a comprehensive evidence-based curriculum that incorporates Accreditation Council for Graduate Medical Education (ACGME) and American Osteopathic association (AOA) core competencies. The SMaRT curriculum provides knowledge acquisition, skills demonstration, and teaching methods on three levels:

- Level 1: Basic Principles
- Level 2: Specialty Settings and Populations
- Level 3: Faculty/Advanced Learner

## **Core Curriculum**

The basic principles of SBIRT presented at Level 1 of the SMaRT curriculum comprise the core curriculum. Residents receive a total of 8 hours of training at Level 1. This curriculum component contains five modules:

- Module 1: Introduction to SBIRT
- Module 2: Medical and Psychiatric Complications of Substance Use Disorders
- Module 3: Brief Intervention and Referral to Treatment Methods
- Module 4: Skill Acquisition for Screening, Brief Intervention, and Referral to Treatment
- Module 5: Pharmacologic Treatment Description and Rationale

Each of the five modules has specific learning objectives, knowledge targets, and a corresponding quiz. Residents are required to demonstrate knowledge in the basic principles of SBIRT by completing the quiz for each module and successfully achieving a score of 100 percent. In addition, each resident must demonstrate minimal proficiency in the application of SBIRT (via the scores on the proficiency checklists) BOTH via the observation and scoring of practice sessions in the classroom AND via observation by trained preceptors OR via the provision of the audio or videotapes following the application of at least one case in clinical practice.

The following modalities are used for residents' skill development and training toward the demonstration of proficiency in SBIRT:

- Interactive Web-based components for the development of applied knowledge of each SBIRT skill domain

- Clinical cases for group discussions and corresponding class activity descriptions
- A case study (enacted by a faculty member, actor, or volunteer resident) which is scored using the proficiency checklist
- Observation of residents providing screening and brief intervention AND referral to treatment in at least one case, and the provision of feedback to the residents on the observation in as close to real time as possible.

## Specialty Components

At Level 2, more focused modules have been developed to provide training for specialty settings and about the use of SBIRT with various populations. A specialty can choose two Level 2 modules as required training for its residents. Level 2 training will begin this program year. Following are some of the modules that have been developed:

### Level 2: Specialty Settings and Populations

- |                          |                            |
|--------------------------|----------------------------|
| ▪ Adolescents            | ▪ Incarcerated Populations |
| ▪ Culturally Specific    | ▪ Injectors                |
| ▪ ER                     | ▪ Inpatient Populations    |
| ▪ Ethnic Minorities      | ▪ Obstetric                |
| ▪ Geriatrics             | ▪ Rural                    |
| ▪ HIV+                   | ▪ Sexual Minorities        |
| ▪ Homeless               | ▪ Veterans                 |
| ▪ Impaired Professionals |                            |

Faculty/Advanced Learner training (Level 3) is provided in a face-to-face half-day training. Level 3 training is required for all faculty champions, using the following five modules:

### Level 3: Faculty/Advanced Learner

- **Part I: Overview**—focusing on (1) the clinical spectrum and prevalence of at-risk alcohol and other substance use, (2) negative health and related consequences of at-risk alcohol and other substances, (3) the appropriateness of SBIRT for screening within a medical setting, (4) the existing educational void in training medical professionals about substance abuse, and (5) addiction as a chronic illness.
- **Part II: Screening**—discusses (1) definitions of low-risk alcohol consumption and the concept of “one drink,” (2) a stepwise approach to SBI, and (3) universal and secondary screening methods.
- **Part III: Brief Intervention**—reviews the definitions of a standard drink and low-risk drinking and discusses FRAMES and the stages of Change Model

- **Part IV: Motivational Interviewing (MI)**—outlines the goals and uses of MI strategy in brief intervention.
- **Part V: Referral to Treatment**—discusses (1) when it is appropriate to refer patients to treatment, (2) referral to treatment, and (3) treatment matching.

At Level 3, the training is designed to be interactive, and formal didactic training is minimal. Video examples of SBIRT and reflection exercises with audience are used. Half of the training includes practicing SBIRT with an actor. Time is also devoted to a discussion of the practice and the challenges that the faculty/champions expect residents to face as well as how to address these challenges. The trainer also provides resources to address the challenges.

## Continuing Medical Education Curriculum

The SMaRT Program offers Continuing Medical Education (CME) credits through the UPMC to community preceptors who complete the first full 10-module version of the SMaRT curriculum.

## Future Curriculum Enhancements

### Proficiency Checklist

The SMaRT project is collaborating with two other SBIRT medical residency programs—Baylor College of Medicine and Mercer University School of Medicine—to develop and validate a checklist for assessing physicians' competency in performing screening and motivational interviewing. The grantees will discuss their progress with this activity at the SBIRT grantee meeting in June 2011.

### Web-based Interactive Training

The SMaRT project has contracted with MedRespond to develop Web-based interactive training modules to enhance the user's BI and MI skills. The application uses a virtual actor to present scenarios to the learner that require the demonstration of BI/MI skills. Interplay between the trainee and the virtual actor uses both natural language and typed responses. The virtual actor will also review the trainee's performance. The trainee must have a minimal score to progress through the each level of training. In addition, trainees will be required to film their interaction with the virtual actor and post it to YouTube for critique. The technology will facilitate training to achieve a minimum level of proficiency in skill acquisition, especially in areas where preceptors are not available.



### Curriculum Observations

- Faculty and resident needs assessments helped to guide the design of the curriculum.
- Physician learning styles were considered in the development of the training modules.
- A three-tier, multimodal curriculum provides core training, specialty- and population-specific training, and training for faculty and advanced learners.
- Eight (8) hours of training is required for all residents
- Proficiency checklists are used to assess resident's BI and MI skills
- The curriculum is Web-based and in the public domain.
- SMaRT training modalities include one-on-one, lecture, role play, online, and preceptor observations.
- CME credits are provided for community preceptors who complete a comprehensive 10-module training course.

# Approach/Implementation

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## Approach

The University of Pittsburgh SMaRT program utilizes a physician implementation model. The implementation protocol requires that a residency site that would like to implement SBIRT must first submit a pre-implementation plan for approval and designate at least one faculty champion who will train residents and facilitate the integration of the curriculum. The champions are provided with clearly defined expectations regarding the amount of time they must commit and the responsibilities they are expected to fulfill.

## Residency Training Implementation

The SMaRT Program defines a training event as a residency year. Due to variations in residency program areas, no single training implementation model for delivery of SBIRT training exists. Each residency program will use the core curriculum, materials, and training exercise concepts as a foundation for adapting an SBIRT training program that meets their specific scheduling and practice needs. However, suggested proficiency goals have been established for each residency year (below). The residents can take the quizzes as many times as necessary to achieve a target score of 100 percent on each quiz. These results are then reported to the respective sites' faculty champions. If residents are not achieving 100 percent, faculty champions are encouraged to follow-up with residents. The residents must also demonstrate proficiency in Screening and brief intervention. Proficiency checklists have been developed to assess the residents' skills. Residents are expected to exhibit 100 percent proficiency in SBIRT, via scores on proficiency checklists, with standardized patients/role play scenarios and clinical practice. The checklists will be implemented this year.

## Observation of Training

At the time of the site visit (February 16–17, 2011), the General Internal Medicine (GIM) residents had already been trained. However, two training sessions for the (GIM) residents were taped in advance for the site visit team to review during their visit. The team observed Dr. Gordon training a small group of residents at the University of Pittsburgh School of Medicine. Four weekly training sessions were provided, with each session lasting 2 hours. The first two sessions focused on the didactic training. The third session, and part of the fourth, were devoted to role-playing; and the last part of the fourth session focused on the quiz.

The site visit team also observed Dr. Miller training 39 GIM residents at Williamsport Hospital and Medical Center. The trainings in Williamsport are conducted in 3- to 5-month segments.

Residents can also train online with a face-to-face review of the material. With self-guided online training, the resident can do the quiz online or hard copy. The residents are encouraged to complete the quiz online so that the results can be returned quickly and the data can be made available for the evaluation.

#### **PGY1—Skills Toward Proficiency**

- Residents should be proficient in (a) screening patients, and (b) reviewing and interpreting the screen.
- Residents should reach acceptable proficiency in these two skill areas vs. complete proficiency.
- All methods of obtaining skills towards proficiency (as described above) should be followed.

#### **PGY2—Beginning Proficiency**

- Residents should be proficient in (a) providing brief interventions/patient education and (b) providing clinical follow-up.
- Again, the residents should demonstrate acceptable proficiency in these two areas.
- All methods of obtaining beginning proficiency (as described) above should be followed.

#### **PGY3—Proficient**

- Residents should be proficient in (a) providing patient education, (b) providing follow up or A/P, and (c) arranging follow up or referral to treatment
- Residents should demonstrate complete proficiency in ALL aspects of SBIRT

## **Faculty Training**

General Internal Medicine conducted a 1-day training for 35 faculty members and a follow-up training session recently. Updates on SBIRT are provided at faculty meetings every other month. A 1-day workshop is being planned for the Emergency Medicine Department. Although the SMaRT training program has not been implemented into Emergency Medicine, there is some familiarity with SBIRT because of the trauma training requirement.

## Implementation Tools

The SMaRT program has developed an implementation toolkit that contains protocols for faculty/champion and resident participation as well as evaluation, testing, and clinical application. The toolkit provides the following resources:

- minimum requirements checklist for participation in the residency training program
- implementation protocol flowchart
- implementation protocol
- faculty development flowchart
- faculty development model
- curricular activities log
- evaluation models and implementation considerations for faculty and residents
- post-test questions
- proficiency checklists for screening, brief intervention and referral to treatment
- curriculum implementation evaluation
- faculty development satisfaction survey
- SMaRT surveys for faculty and residents
- CSAT baseline and follow-up training satisfaction surveys

## “Get SMaRT” Web Site

Before creating the Web site, the developer convened focus groups to obtain input from the users. The “Get SMaRT” Web site provides a virtual learning environment for the SBIRT medical residency program and the public. The curriculum, quizzes, curricular materials and resources, surveys, evaluation instruments, and presentations are accessible online. The trainee can choose training modality—video with presentation or slides with text.

A Web site segment is provided for each residency site, and sections are provided for faculty champions, and residents. The Web site also provides a news feed, question of the day, calendar, important links, a discussion forum publications, and personal blogs. The residents’ progress through the curriculum is tracked online, and reports are provided to each site. Tracking reports and Web site usage statistics are also generated.

### Approach/Implementation Observations

- Implementation protocols are provided for residencies, champions, testing, evaluation, and clinical application.
- Participating residencies are provided with clearly defined expectations, responsibilities, and protocols.
- A participating residency must identify a Champions to implement the training program in a its clinical setting
- Champions receive funding
- The amount of time required to implement SBIRT training varies depending on the structure of the program and the number of faculty and residents to be trained.

## Data Collection and Evaluation

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The University of Pittsburgh's SMaRT Program is conducting both program process and outcome evaluations. The process evaluation assesses the SMaRT Program's progress in training medical residents in SBIRT practices and disseminating SBIRT practices throughout the medical community. Data for the SMaRT Program's process evaluation are obtained through interviews with faculty champions and residents. Participation by residents in the evaluation is voluntary.

The outcome evaluation assesses resident and faculty satisfaction, as well as change in skills, attitudes, and knowledge relative to the practice of SBIRT with patients in medical settings.

The SMaRT evaluator provided the following matrix, which shows the evaluation domains and related data collection instruments.

Domain	Instruments
Satisfaction	GPRA
Knowledge and Attitude Change	Curriculum Quizzes SMaRT Survey—Faculty Version SMaRT Survey—Resident Version
Clinical Practice Change	Proficiency Checklists SMaRT Survey Clinical Tracking

The evaluation protocol specifies the timing of instrument administration during the residency year as follows:

1. After program registration, but prior to exposure to the curriculum, residents will have two weeks to complete the SMaRT survey. During this two-week period, the residents are provided with a brief orientation to the program and Web site.
2. As residents progress through the Level 1 curriculum during the residency year, they will complete a brief quiz (knowledge components) or be assessed by faculty preceptors (skill components).
3. At the end of the residency year, the residents will complete the SMaRT posttest and the GPRA posttest.

4. Thirty (30) days after completing the GPRA posttest, the residents will complete the GPRA follow-up survey
5. One year after completing the SMaRT survey posttest, the residents will complete the SMaRT survey follow-up.

Faculty participation in the evaluation is also voluntary. The evaluation protocol specifies the timing of instrument administration for faculty as follows:

1. Prior to exposure to the curriculum, all SMaRT faculty members will complete an entailed training/orientation to the project and Web site. The faculty will complete the SMaRT survey and a training satisfaction survey.
2. The faculty champion at each site will complete all knowledge and skill components and participate in curriculum evaluation activities, including quizzes and assessment for skill by a SMaRT master trainer.

#### **Data Collection and Evaluation Observations**

- Patient encounters are tracked; there have been over 2,000 patient encounters
- The evaluation instruments incorporate the Alcohol and Alcohol Problems Perception Questionnaire and the Drug and Drug Use Problems Perception Questionnaire
- Evaluation data for Year 1 and Year 2 of the SMaRT Project
- Data collection instruments can be completed online

## Program Area Summaries

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In an effort to understand perspectives on SBIRT training at the program area level, the site visit team met faculty, staff, and residents from the three Family Medicine Residency Program sites that are currently delivering SBIRT training—UPMC McKeesport, St. Margaret, and Williamsport. The purpose of these meetings was for the site visits team to develop an understanding of the training approach, status of implementation to date, and barriers and facilitators to implementation for each program area from the perspective of faculty and staff integrating the trainings into their program and, in some cases, delivering the trainings to residents. One meeting (McKeesport) was conducted at the Family Health Center and lasted for an hour. The meeting with the St. Margaret Faculty Liaison was conducted at the PERU office and, the meeting with the Williamsport Residency Director and residents was conducted by conference call.

### McKeesport Family Medicine Residency

#### Participants

Shari Holland, MA, LPC (Champion), Dr. William Markle (Residency Director), Dr. Daphne Bicket (Family Medicine Preceptor) Dr. Esther Ngare (Resident), Dr. Tracey Conti (Research Coordinator)

#### Observations

Major topics of discussion included: (1) buy-in, (2) clinical implementation of SBIRT, and (2) billing.

#### Buy-in

Buy-in is not an issue at the medical center. The medical staff are supportive at all levels of SBIRT at McKeesport. This support can be attributed, in part, to the inclusion of all staff in the decisions about how SBIRT would be implemented at the clinic. The nurses, medical assistants, and front office staff asked to provide feedback on the process. They recommended that the screening be done at the same time as the depression screening. The Champion indicated that it was important for the staff to have a voice in the process from the beginning.

The faculty has asked questions about the supporting research. However, the studies are not such a big factor because the physicians are seeing the population that is in great need of the help. Faculty and staff from other programs have come to McKeesport to observe how SBIRT is preformed, and information is exchanged at project training meetings.



Initially, the residents thought that the idea of doing a brief intervention was “scary” until they realized that it was really having a conversation about what was affecting the patient’s health. Now they are less afraid because they now have the skill and training to have the conversation.

### **Clinical implementation of SBIRT**

The McKeesport Family Medicine Residency was one of two programs where SBIRT was first implemented. The program trains 21 residents in Psychiatry, OB-GYN, and Family Medicine per year. All first-year residents completed their training in June 2010 and began screening in September 2010. In addition, Psychiatry residents are must attend a mandatory Alcoholics Anonymous meeting.

The SBIRT process begins in the medical center with a medical assistant or nurse who administers a two-question prescreen to each patient. The prescreen is in the EMR and is administered at the same time that depression screening (PHQ-9 and Edingburgh postnatal depression scale) and domestic violence screening is administered. If the two-question prescreen is positive, the nurse or medical assistant will administer the ASSIST. The resident will review the ASSIST. If the score indicates that a BI is necessary, the resident will call for the Champion or attending faculty to observe the resident perform BI. At times, BIs with patients are also videotaped and feedback is provided to the resident. If the resident performs a BI, the resident must follow up with the patient on subsequent visits. The completed ASSIST is placed in a box to be entered into the electronic medical record.

Treatment referrals are made to Mon Yough Community Services and Turtle Creek Valley Mental Health Services.

SBIRT has been integrated into the McKeesport Family Medical Health Center and the faculty indicated that it would continue in the future after the SBIRT medical residency training program has ended.

### **Billing**

Although the UPMC has made the Medicaid billing codes available, the McKeesport Family Medicine Residency has not billed for SBIRT services. The question for McKeesport is how to document SBI for billing. The concern is that, under the Uniform Policy Provision Law (UPPL), if the explanation of benefits (EOB) reflects that alcohol and substance use screening was performed insurers would not have to reimburse patients for costs incurred when an accident is a result of “the insured’s being intoxicated or under the influence of any narcotic.” Patients also complain about seeing the charge for alcohol and substance use screening on their bill.

### Observations (Residents)

Dr. Ngare expressed enthusiasm for SBIRT because she now has the confidence to have a conversation with patients about other risky behavior and health concerns. She is using her motivational interviewing skills to address diabetes and tobacco with patients. Dr. Ngare indicated that a resident, trained in SBIRT, could integrate it in their own way and tailor the approach to each patient.

### Observations (Champion)

Ms. Holland observed that the SBIRT approach is not judgmental and does not make patients feel ashamed or scolded. SBIRT opens the door and shows genuine care and concern for the patient. One patient commented that a doctor had never asked these questions before.

## UPMC St. Margaret Family Medicine Residency

On February 16, the site visit team met with Patricia M. McGuire, M.D., at the PERU Office. Dr. McGuire, a board certified in general and child/adolescent psychiatry, is Director of Family Medicine and Faculty Liaison for the SMaRT Project at UPMC St. Margaret Family Medicine Residency. She also represents St. Margaret on the SMaRT Curriculum Committee.

The St. Margaret Family Medical Residency serves the following areas:

- **Lawrenceville**, the oldest and largest area of the areas served by the St. Margaret Family Health Center is an industrialized area along the Allegheny River. The population consists of a combination of elderly and indigent citizens along with recent immigrants from Somalia. There is a resurgent arts scene. There are many bars and hardcore alcohol usage among the population, as well as drug trafficking. Lawrenceville has approximately 17,000 annual patient visits, with 23 percent pediatric and adolescent, 60 percent adult, and 16 percent geriatrics.
- **Bloomfield/Garfield** is an underserved area with a large African-American population, a growing Vietnamese community, young families with children and teens. The Family Health Center cares for over 7,100 patients annually, with 32 percent pediatrics and adolescents, 62 percent adult, and 6 percent geriatrics.
- **New Kingston** was once a vibrant community. As a result of the industrial decline in Pittsburgh, the community has fallen on hard times. There is a high incidence of co-occurring mental health and substance use issues among the population, as well as high alcohol and tobacco use among women.

## **Buy-in**

Given the characteristics of the population and the issues related to substance use and mental health, buy in is not a problem. The faculty and residents are aware of pervasiveness of substance use issues and want to work with the patients.

## **Current screening practices**

The New Kingston site has experience using the AUDIT-10 and DAST for alcohol and substance use screening, as well as the PHQ-9 and GAE-7 for depression and anxiety disorder screening. These instruments are not yet in the electronic medical records.

## **Residents**

Forty-five (45) residents will be trained in SBIRT over the course of three (3) years, including 25 at Lawrenceville, 10 at Bloomfield/Garfield, and 10 at New Kingston.

## **Faculty**

The St. Margaret Family Health Center has 20 full-time and part-time faculty members and 12 community preceptors who own practices. Dr. McGuire commented that the community preceptors bring an interesting perspective to the medical residency program.

The faculty and preceptors will receive training in basic SBIRT, the use of tools to determine resident competencies, and motivational interviewing skills in early spring or summer prior to the new residents' arrival in July 2011.

## **Challenges**

Time, negotiating priorities, training community preceptors, and verifying that SBIRT is happening real time in the family health centers are the greatest challenges at St. Margaret's. Video cameras were installed in the three health centers last year, and it has helped to review the SBIRT clinical skills component. Given the constraints of the community preceptors, they will probably receive online training rather than face-to-face training. Dr. McGuire also provided the insight that motivational interviewing requires a shift in one's mindset that is akin to batting right handed when you are left handed, which can be difficult.

# **Williamsport Family Medicine Residency**

## **Participants**

Dr. Bradley Miller (Director of Osteopathic Medical Education); Residents: Dr. Matthew Meeker (Resident) and Dr. Michelle Skinner (Resident)

Dr. Bradley Miller is the SMaRT Curriculum Co-Chair and Director of Osteopathic Medical Education and Program Director the Osteopathic Family Medicine Residency Program. Dr. Brad Miller has a previous history with the SBIRT program through his involvement with the Pennsylvania State SBIRT program.

## **Residency Training**

The program has 21 residents and four (4) faculty members. Didactic training in SBIRT has been provided at Williamsport, but skill-based training has not yet been initiated. Screening for mental health (depression) and limited screening for substance abuse currently performed at Williamsport.

## **Implementation**

The program will be implemented in a family medical center that provides the full spectrum of health care across the whole life cycle. There are also plans to coordinate with the prenatal and obstetrics clinics. An inpatient detox and other treatment services are available for referrals.

## **Challenges**

Scheduling logistics for residents who have fragmented schedules

## **Buy-in**

Thus far, the experience has been good and support is good.

## **Residents**

The residents did not have any prior training in addiction. They commented that the training was useful and helps with their comfort level in discussing uncomfortable issues. The segment on alcohol education was beneficial, especially the information on the definition of a standard drink and identifying hazardous versus harmful drinking.

## **Sustainability**

Faculty members are supportive and have permanently woven sustainability into training for interns. Dr. Miller suspects it will be a permanent fixture in training.

# Summary of Onsite Observations

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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

- **Adherence to Clinical Protocols:** Some programs, especially programs that have large numbers residents, have expressed the need for a way to verify real-time adherence to SBIRT clinical practices.
- **Medicaid Pilot Study:** The Pennsylvania Department of Welfare is considering adding Medicaid codes for SBIRT to the fee schedule. However, evidence for cost savings must be established in order to do so. The Department of Welfare has requested assistance from the SMaRT Project to design and conduct the study and analyze the data. The purpose of this pilot is to demonstrate that the activation of the Medicaid SBIRT-associated HCPCs codes is feasible and can result in some outcomes associated with the cost savings to the Commonwealth. This technical assistance is currently being conducted by RTI under TA 2623. The SMaRT Project will use the findings to ensure that statewide training efforts succeed.
- **Billing for Services:** The residency directors have indicated that they would like to bill for SBIRT services. However, they are not billing because of concerns related to the denial of insurance reimbursements to patients because of the UPPL. In addition, patients complain about alcohol and substance use screening appearing in the explanation of benefits. It was suggested that it might be possible to label SBI as a behavioral risk rather than a drug and alcohol risk and thereby avoid the UPPL issue. Further research on this and other possible solutions warrant further discussion.