Substance Abuse Screening and Brief Intervention in Primary Care

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Approximately 3 out of 10 US adults drink at levels that elevate their immediate and long-term risk for physical, mental, and social problems.[1] Few seek treatment from the specialty substance abuse (SA) treatment system that has traditionally targeted the very small percentage of alcohol-dependent patients (less than 5%) and does not address the needs of the 20% or so who are exceeding recommended limits.[a] These groups put themselves and others at risk of injury and increase their likelihood of developing alcohol dependence, chronic diseases, neurological impairments, and social problems (see Figure 1).[2]

In communities across North Carolina and the country, patients with SA issues are regularly presenting at local emergency departments (EDs) and the ED, in many instances, has become a default SA provider for the community. Clearly, patients are not receiving adequate identification, treatment, or support for their substance use disorders elsewhere in the community and, as a result, crises frequently bring them to the ED. This is not a good use of resources nor is it the means to providing high quality care.

If identified early and treated appropriately, substance use disorders can be successfully managed in the primary care setting without further progression. Because at-risk drinkers commonly present to primary care settings, practitioners at these sites can have significant impact in reducing the harm associated with at-risk drinking and can often motivate dependent individuals to seek treatment. This provides an opportunity for substance abuse identification and intervention that has yet to be optimally leveraged.

Integrated Physical and Behavioral Health Care

A number of health-related social and financial factors (including dissatisfaction with the carve-out model[b]) have resulted in a large-scale move to integrate physical health (PH) and behavioral health (BH), including mental health and substance use, a model known as integrated care. There are different levels and definitions in integrated care with varying dimensions and degree of integration; however a recent AHRQ study was unable to identify an optimal integration model as a number of different models were shown to be effective.[3] In other words, integrated care is widely considered the best way to ensure access to BH when it is needed, reducing the relative risk and the risk of progression to more hazardous and/or dependent use.

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Integrated care is a means for intervening earlier, reducing progression to more intensive disease, and obviating the need for more intensive treatment, thus reserving specialty BH care for those with more serious disorders. Integrated care reduces stigma and increases engagement in treatment.[4] In addition, approximately 70% of all primary care visits have psychosocial drivers, and the burden of BH markedly complicates the process and cost.[5] Thus, integrated care also leads to improved outcomes at a reduced cost.[4] Furthermore, integration is more person-centered and approaches depression and substance

a Maximum drinking limits are as follows: no more than 4 drinks in one day and no more than 14 drinks in one week for men and no more than 3 drinks in one day and no more than 7 drinks in one week for women.[1]

b The carve-out model is a managed care term for a program that separates mental health and substance abuse services from the mainstream medical system and provides them separately.

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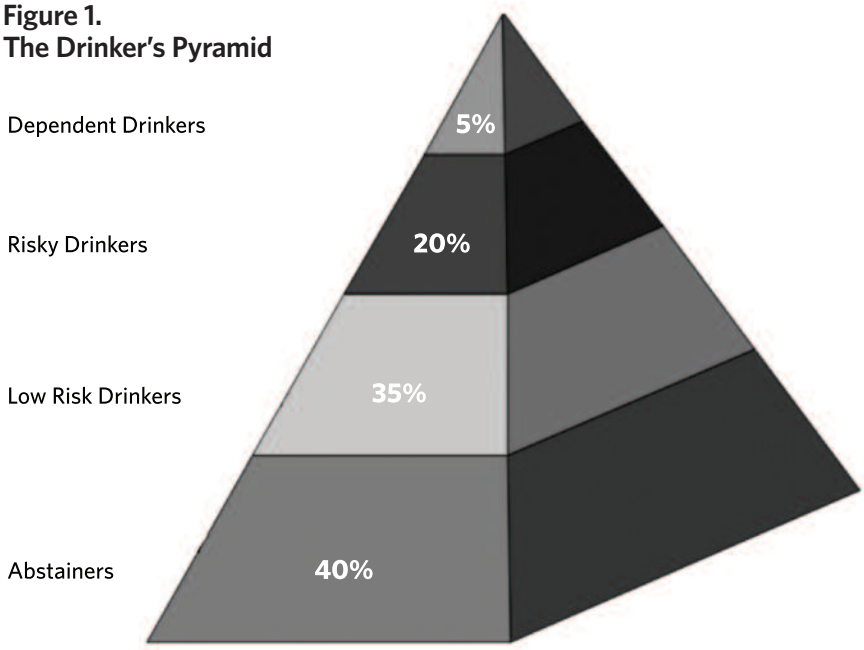
Figure 1.
The Drinker's Pyramid



Source: Babor T, Higgins-Biddle JC. *Brief Intervention for Hazardous and Harmful Drinking: A Manual for Use in Primary Care.* Geneva, Switzerland: World Health Organization; 2001.

abuse (and certain other BH conditions) as the chronic relapsing conditions that they are.

The movement toward integrated care is occurring locally, nationally, and internationally. In the groundbreaking *Crossing the Quality Chasm: A New Health System for the 21st Century*, the Institute of Medicine of the National Academies states that, "It is not possible to deliver safe or adequate healthcare without simultaneous consideration of general health, mental health, and substance abuse issues."[6] The Four Quadrant Model depicts the intersection between BH and PH and the recommended treatment setting (see Figure 2).[7] Quadrant one represents the large number of patients with nondependent, at-risk substance abuse and/or mild to moderate mental illness who can be successfully treated in the primary care setting.

Substance Abuse Screening, Brief Intervention, and Referral to Treatment (SBIRT)

There is good evidence that counseling by a physician does have an effect on subsequent drinking behavior.[3] SBIRT is a well-studied, cost-effective approach to integration of substance abuse identification, intervention, and primary health care.[8,9] Brief interventions (BIs) have been shown to be effective with smokers and drinkers. SBIRT for illicit drugs and prescription drugs is less well-studied, but there is an increasing evidence base that suggests SBIRT is effective for these disorders as well. SBIRT has been shown effective with both genders and diverse socioeconomic and ethnic populations.[10-12]

SBIRT interventions target two groups: those who meet criteria for dependence and need specialty treatment and those engaging in moderate or high risk substance use but who do not meet criteria for dependence. We now have over two decades of clinical research and program development, consensus from medical specialty groups, and effective screening, BI protocols, and training available.

Components of SBIRT

Screening

Screening identifies patients whose drinking puts them and others at risk and identifies patients who are likely dependent. There are several validated screening tools including AUDIT, ASSIST, MAST, CAGE-AID, DAST for adults, and CRAFFT for adolescents.

Brief Intervention

Conducting a brief intervention can help motivate behavior change by aiding the patient to see the connection between his or her drinking and his or her health problem. This is a "teachable moment." BIs are low-cost and time-limited (5-15 minutes in duration). BIs using motivational approaches are effective in terms of clinical effectiveness and cost.[8] The goals of BI are to reduce consumption and alcohol-related problems and/or facilitate treatment engagement by motivating patient to make a decision about decreasing his or her risky use. Specifically, a FRAMES approach is recommended: **F**eedback, **R**esponsibility, **A**dvice, **M**enu of strategies, **E**mpathy, and **S**elf-efficacy. BIs can also be useful in getting dependent patients to enter specialized substance abuse treatment.

Referral to Treatment

Patients who are likely dependent should be referred for further assessment and/or specialized treatment.

Follow-Up

Patient outcomes improve when follow-up is provided. This can be a phone call reinforcing the brief intervention, a referral to the patient's primary care physician, or attendance at a 12-step program in the community. After a formal substance abuse treatment episode, the patient is referred back to the primary care setting for follow-up care. Bi-directional communication and linkages between primary care and specialty SA care are important. Additionally, community peers who are in recovery can be a great asset in helping the patient get connected with resources in the community such as specialty SA treatment and self-help groups.

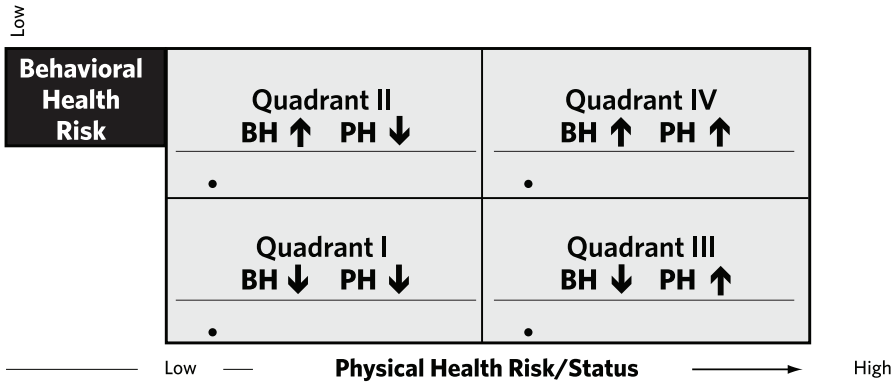
Outcomes Associated with SBIRT

SBIRT has been shown to decrease the frequency and severity of drug and alcohol use, reduce the risk of trauma, and increase the percentage of patients who enter specialized

substance abuse treatment. It is also associated with fewer hospital days and fewer emergency department visits. Cost-benefit and cost-effectiveness analyses have demonstrated net cost savings for this approach.[8-11]

The decreased ED and hospital usage payoff is estimated conservatively at 4:1; for every $1 used for SBIRT, there is a savings of at least $4 in reduced ED and hospital use.[13] Other estimates of cost effectives range from 4:1 to 7:1. Additional cost savings accrue due to the decreased costs to society (e.g. criminal justice).

Figure 2.
The Four Quadrant Clinical Integration Model



Source: Mauer B. *Behavioral Health/Primary Care Integration: The Four Quadrant Model and Evidence-Based Practice.* The National Council for Community Behavioral Healthcare website. http://www.thenationalcouncil.org. Accessed February 11, 2009.

Barriers to SBIRT

Despite strong support for SBIRT, a number of barriers stand in the way of widespread implementation. Our present health care system is largely focused on acute care; the transition to a more population-based care management/preventive system doesn't occur quickly. In addition, medical school and residency training about substance abuse is fairly cursory, and many physicians do not feel comfortable intervening. Many physicians are not knowledgeable about the chronic disease nature of substance abuse nor are they aware that treatment for SA is as effective as treatment for other chronic conditions such as asthma, diabetes, and hypertension (see Table 1).[14,15] Office systems (flow as well as billing) generally do not incentivize SA identification and intervention. Financial barriers are a major impediment, primarily because critical functions of integrated care (e.g. care management, consultation, and communication between providers) are not reimbursed by traditional fee-for-service.[3] Other financial, organizational, and administrative barriers also stand in the way.

Because of these obstacles, successful SBIRT implementation requires the following elements: (1) initial and ongoing training for clinical and administrative staff; (2) realignment of funding and reimbursement mechanisms with technical assistance for troubleshooting problems; and (3) incorporation into a larger health policy and legislative framework supported by leadership, adequate resources, and coordination of a network of services at different levels of care.[4]

Support for Integrated Care and SBIRT

There is general agreement that substance abuse is best understood and treated as a chronic, relapsing condition, and that there is a need to broaden the base of treatment to expand treatment and early intervention services. Screening and brief intervention in the primary care and emergency settings have been endorsed and recommended by all major primary care specialty and public health groups. These groups include the American Medical Association, American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Psychiatric Association, American College of Emergency Physicians, American College of Surgeons Committee on Trauma, American College of Obstetricians and Gynecologists, and the American Society of Addiction Medicine. Integrated care and SBIRT have international backing as well, with an endorsement from the World Health Organization.[4]

Integrating behavioral health and traditional physical health is an increasingly important priority at the federal level. The President's New Freedom Commission on Mental Health report has called for primary care screening for mental illness and co-occurring mental illness and substance use disorders.[16] The priority on integrated care is also evidenced by the number of large grants which include SBIRT and other behavioral health/primary health (BH/PH) integration efforts and the federal resources devoted to SBIRT by agencies such as the Substance Abuse and Mental Health Services Administration, the National Institute on Alcohol Abuse and Alcoholism, the National Institute on Drug Abuse, and the Health Resources and Services Administration's Bureau of Primary Care.

The federal government has also shown leadership in SBIRT financing and sustainability, establishing reimbursement codes for screening and brief intervention for both Medicaid and Medicare patients. Some private insurers have also started to reimburse for these services. These codes do not solve the reimbursement problem but they are a good start. George Washington University's Ensuring Solutions to Alcohol Problems project addresses the many financial and organizational barriers and is an invaluable resource for those wishing to adopt these approaches (see http://www.ensuringsolutions.org).

Table 1.
Comparisons Among Alcohol-Related Problems and Other Chronic Diseases

	Alcohol-Related Problems	Asthma	Diabetes	High Blood Pressure
Prevalence	13.8 million	17.6 million	10 million	50 million
Total economic costs	$185 billion	$111 billion	$98.1 billion	$40 billion
Health care costs	$26.3 billion	$7.5 billion	$44.1 billion	$29 billion
Other medical complications	Yes	No	Yes	Yes
Causes				
Controllable risk factors	Yes	Yes	Yes	Yes
Uncontrollable risk factors	Yes	Yes	Yes	Yes
Estimated genetic influence	50-60%	36-70%	30-55% - type I 80% - type II	15-50%
Treatment				
Cure	No	No	No	No
Research-based treatment guidelines	Yes	Yes	Yes	Yes
Effective patient/family education	Yes	Yes	Yes	Yes
Percentage of patients who follow treatment regimens faithfully	40-60%	30%	30%	30%
Percentage of patients who relapse within one year	40-60%	50-70%	30-5-%	50-70%

Source: Adapted from: The George Washington University Medical Center. *Costs and Benefits.* Ensuring Solutions to Alcohol Problems website. http://www.ensuringsolutions.org/resources. Accessed February 11, 2009.

The American College of Surgeons Committee on Trauma has also shown leadership by mandating in 2007 that all level I trauma centers be required to provide SBIRT services. In fact, it is trauma surgeons who are at the forefront of SBIRT promotion, leading with initiatives and research that demonstrates the importance of identifying patients with at-risk and dependent substance use and intervening appropriately with these patients. Brief interventions conducted in trauma centers have been shown to reduce trauma recidivism by as much as 50%.[17] In addition, screening in this setting allows for identification of at-risk use, which can often be modulated by brief intervention. It also allows for identification of dependent patients who need a more comprehensive assessment and/or specialty SA treatment.

Experience indicates that once introduced as standard practice into an emergency department, SBIRT often spreads throughout the hospital as its utility and value are recognized by physicians, nurses, and administrators. Washington State serves as one example. Until exposed to these interventions and initiatives, physicians are often unaware that SBIRT can be integrated into a busy practice and can facilitate management of other chronic diseases.[18]

SBIRT Efforts Underway in North Carolina

A number of SBIRT pilots and initiatives are underway in hospitals, emergency departments, and primary care settings across North Carolina. These include federally-funded, state-funded, and foundation-funded SBIRT grant projects as well as those funded by hospitals and physician practices. North Carolina's Area Health Education Centers Program (AHEC) and the ICARE partnership provide statewide training and technical assistance. The ICARE partnership is providing practice-based technical assistance around reimbursement and is currently running two pilot SBIRT projects with plans for additional pilots in the eastern part of the state (see http://www.icarenc.org). The ICARE partnership has led to vastly increased collaboration and visibility of integrated care efforts in the state.

In addition, the North Carolina General Assembly has provided nonrecurring funds that allowed Community Care of North Carolina (CCNC) to pilot stronger integration of mental health services into the primary care setting. In addition to promoting evidenced-based screening and brief interventions, CCNC applies its population-based chronic disease care model to mental illnesses such as depression. Evaluation will include clinical, functional, and financial outcomes. While ICARE has assumed the coordinating role around mental health and primary care integration, the Governor's Institute serves as a coordinator of SBIRT projects, initiatives, and training in the state (see http://www.governorsinstitute.org).

Our health care system does a poor job of identifying and intervening with alcohol and drug users who are exceeding recommended limits but who have not yet developed dependence. Similarly, specialty SA treatment has long been tailored to chronic, relapsing alcoholics. Much of the 25% of

the population who exceed drinking limits with or without dependence are more appropriately treated in the primary care setting. Many of these patients will benefit from one or more brief interventions that take place in the primary care setting. If identified early and treated appropriately, substance use disorders can be successfully managed without further progression. The limited resources of the specialty substance abuse treatment system can then be used in a manner that is more appropriate and cost-effective for patients requiring more intensive intervention. **NCMJ**

Table 2.
Recommended SBIRT Resources

SAMHSA/CSAT http://www.sbirt.samhsa.gov
NIAAA http://www.niaaa.nih.gov/Publications/EducationTrainingMaterials
Ensuring Solutions to Alcohol Problems http://www.ensuringsolutions.org
ICARE Partnership http://www.icarenc.org
American College of Surgeons http://www.facs.org/trauma/publications/sbirtguide.pdf

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