

## **ABSTRACT**

Substance abuse disorder (SUD) involves uncontrolled high risk use of alcohol or illicit drugs (heroin, cocaine, tobacco) leading to adverse effects on patient health and well-being. The population-level impacts of SUD are lost productivity, criminal justice and healthcare costs exceeding 400 billion dollars per year.<sup>1,2</sup> Beyond economic cost is the suffering secondary to family disruption, unemployment, homelessness, and serious health complications. Excessive alcohol consumption accounts for nearly 88,000 deaths annually and is the fourth leading preventable cause of death in the United States.<sup>2,3</sup>

Screening, brief intervention and referral to treatment (SBIRT) is a comprehensive public health strategy for identifying and delivering early intervention and treatment services to both patients who have developed and patients at moderate to high risk for developing SUD.<sup>4</sup> Originally developed in primary care settings for tobacco and alcohol risk, it now includes illicit and prescription drug use.

Patients with SUD are particularly likely to present to Emergency Departments (ED). Given that nearly half of all ED encounters in the U.S. are categorized as SUD-related, the ED has been recognized as an ideal setting to identify patients with or at risk for SUD and link them to resources for prevention and treatment as appropriate.<sup>5</sup> In response to the large number of patients at risk for developing SUD Stony Brook University Hospital (SBUH) has committed significant resources in personnel and clinical space to create an ED-based SBIRT program. The purpose is to identify at-risk patients and reduce SUD-driven adverse health consequences, disease, accidents, and injuries. Trained counselors evaluate patients with a positive nursing pre-screen to determine if substance abuse services (literature, medication, referrals) or acute transfer to inpatient treatment is needed.

SBIRT programs have been established in numerous EDs in response to the urgent need for effective mitigation strategies, but their effectiveness has largely been estimated and few studies have followed patient progress. Results vary by the characteristics of the provider, the specific setting, and the patient population that is targeted for SBIRT implementation.<sup>7</sup>

Patients evaluated by SBIRT counselors are determined to be in one of three categories: low risk, moderate risk, and high risk for SUD. The most cost-effective goal of the SBIRT program is likely through altering the clinical trajectory of patients at moderate risk for developing SUD. This study will evaluate the effect of an ED based SBIRT program on patients by performing follow-up telephone interviews after their index ED interaction at 6 and 12 months and measure changes in risk category for SUD.

Successful conduct of this study will provide data to support our application for NIH PAR-23-240 Alcohol and Other Substance Use Research Education Programs for Health Professionals (R25 Clinical Trial Not Allowed) and our reapplication for the Suffolk County Opioid Settlement Funding Grant to enhance prevention, harm reduction, treatment and recovery services in Suffolk county. We intend to apply for these grants within one year of initiating this study.

This study will create the infrastructure to conduct a prospective cost-benefit program analysis and potentially identify patient predictors to program response to guide future research efforts.