



The Improving Addiction Care Team, or IMPACT, is an interprofessional hospital-based addictions team that meets people with substance use disorder (SUD) during the reachable moment of hospitalization. IMPACT provides patient-centered care, offering medication treatment, linkage to care after discharge, and harm reduction support. IMPACT creates better health, lower costs, and better care. Studies show IMPACT is associated with improved patient and provider experience, and improved post-hospital SUD treatment engagement. This is a summary of 6 implementation and evaluation studies and other documents published about IMPACT.

Background

Although hospitals treat medical complications of persons with SUD, such as endocarditis, soft tissue infections, and traumatic injuries, most do not offer services or resources that address the underlying cause, the SUD itself. Recognizing this gap, Oregon Health & Science University (OHSU) developed the IMPACT program. IMPACT addresses whole-person needs of patients with SUD who present with medical and surgical complications of addiction in the hospital setting.

Dr Honora Englander and her team developed the IMPACT model. Dr Englander conducted an assessment of persons with SUD to understand patient needs and system-level gaps, and then mapped findings to components of the intervention.¹ They found hospitalization represents a moment during which many patients wanted to change their use of substances. Fifty-eight percent of people with high-risk alcohol use and 67% of people with high-risk drug use said they wanted to cut back or quit. Many patients reported that they wanted treatment, including starting medication for opioid use disorder; that there were long wait times for community SUD treatment programs; and that patient engagement and trust were key. They also found people with SUD had high rates of hospital readmission and longer than expected hospital length of stay (LOS), particularly among those requiring prolonged courses of intravenous antibiotics.

How it works

Inpatient medical and surgical providers, and hospital social workers refer patients with known or suspected SUD (excluding people with tobacco use disorders alone) to IMPACT, regardless of an individual's perceived readiness to change or interest in SUD treatment.

The IMPACT includes an inpatient addiction consult service with care from dedicated addiction medicine providers (physicians or advance-practice providers [APPs]), social workers, and peers with lived experience in recovery.^{1,2} IMPACT performs a comprehensive SUD assessment; elicits patient-centered goals; offers treatment, including pharmacotherapy and behavioral treatments; and offers harm reduction services. IMPACT also includes robust referral pathways to post-hospital SUD care. Peers with lived experience in recovery support patients who may not be interested in changing their substance use, and they serve as a key voice in designing care.³ IMPACT partners with community treatment providers to support rapid-access pathways to services after hospital discharge.

A cost analysis during program development showed potential long-term savings. The team used this result, coupled with mounting clinical need, to influence payer stakeholders to provide



financial support for the intervention.¹ The program development team estimated reductions in hospital LOS and readmissions, and described the potential for improvements care quality. IMPACT is conducting ongoing studies to examine the effect on healthcare utilization and cost.

Intended Outcomes

IMPACT's intended outcomes are to:

- Improve the quality and value of care for hospitalized patients with SUD,
- Increase post-hospitalization SUD treatment engagement,
- Improve hospital provider experience of working with and treating patients with SUD, and
- Share best practice resources, including tools, with other hospitals interested in expanding SUD services

Methodology

To evaluate the effect of IMPACT on SUD treatment engagement after hospital discharge, IMPACT patients were compared to propensity-matched controls in the Medicaid data set.⁴ The study compared SUD treatment engagement after hospital discharge, defined by the Healthcare Effectiveness Data and Information Set (HEDIS) measure of SUD treatment engagement, defined as two or more claims on 2 separate days for SUD care within 34 days of discharge.

To assess provider experience delivering hospital care before and after IMPACT, researchers performed a qualitative study of interprofessional OHSU hospital providers 6 months after IMPACT initiation.⁵

Results

Compared to propensity-matched controls, IMPACT participants had a two-fold greater odds of receiving SUD treatment after discharge (OR 2.15, 95% CI: 1.29-3.58).⁴ The effect on post-discharge treatment remained when patients who had engaged in SUD treatment before admission were removed from the analysis (OR 2.63, 95% CI: 1.46-4.72). Patients with opioid use disorder (OUD) were more likely to engage in treatment after discharge than those with other forms of SUDs. This study found that there was 1 death in the IMPACT group compared to 14 in the control group in the patient's first month after discharge.

Hospital providers felt IMPACT alleviated the widespread "moral distress" they previously felt when caring for adults with SUD.⁵ Before IMPACT, providers felt care was chaotic, unsafe, frustrating, and variable in quality. After IMPACT, providers described how the program reframed addiction as a treatable brain disease, transformed the care culture, and improved provider experience.

Ongoing studies are evaluating IMPACT effect on mortality and health care utilization.



Discussion

The IMPACT model addresses a pervasive care gap experienced by hospitalized patients with SUD. IMPACT experience confirms hospitalization is a reachable moment to engage patients and initiate addiction treatment. Caring hospital staff and resources can help persons with addiction start on a path towards recovery, potentially stopping the cycle that leads to hospital readmissions for SUD-related complications.⁶ Further, implementing hospital-addictions care has the potential to change hospital culture and reduce stigma towards people who use drugs.⁵

The evaluation study also demonstrated that participation in IMPACT resulted in increased engagement with SUD treatment services after hospital discharge. Such engagement has been shown to be associated with reduced substance use severity, higher employment and wages, less future criminal involvement, reduced overdose rates, and reduced all-cause mortality.⁴ These factors can also result in reduced hospital readmissions, and therefore costs.

This program was developed and implemented at a single academic medical center in Oregon. The IMPACT team is spreading best practices in hospital addictions care through a telementoring platform using ECHO (Extension for Community Health Outcomes), and has published a toolkit as a starting point for other institutions who are interested in pursuing more comprehensive care for their SUD population. Institutions can adapt and grow the program according to their patient population and organizational needs.

References

1. Englander H, Weimer M, Solotaroff R, et al. Planning and Designing the Improving Addiction Care Team (IMPACT) for Hospitalized Adults with Substance Use Disorder. *Journal of hospital medicine*. 2017;12(5):339-342. doi: 10.12788/jhm.2736.
2. Englander H, Mahoney S, Brandt K, et al. Tools to Support Hospital-Based Addiction Care: Core Components, Values, and Activities of the Improving Addiction Care Team. 2019;13(2):85-89. doi: 10.1097/adm.0000000000000487.
3. Collins D, Alla J, Nicolaidis C, et al. "If It Wasn't for Him, I Wouldn't Have Talked to Them": Qualitative Study of Addiction Peer Mentorship in the Hospital. *Journal of General Internal Medicine*. 2019. doi: 10.1007/s11606-019-05311-0.
4. Englander H, Dobbertin K, Lind BK, et al. Inpatient Addiction Medicine Consultation and Post-Hospital Substance Use Disorder Treatment Engagement: a Propensity-Matched Analysis. *Journal of General Internal Medicine*. 2019. doi: 10.1007/s11606-019-05251-9.
5. Englander H, Collins D, Perry SP, Rabinowitz M, Phoutrides E, Nicolaidis C. "We've Learned It's a Medical Illness, Not a Moral Choice": Qualitative Study of the Effects of a Multicomponent Addiction Intervention on Hospital Providers' Attitudes and Experiences. *Journal of hospital medicine*. 2018;13(11):752-758. doi: 10.12788/jhm.2993.
6. Englander H, Priest KC, Snyder H, Martin M, Calcaterra S, Gregg J. A Call to Action: Hospitalists' Role in Addressing Substance Use Disorder. *J Hosp Med*. 2019;14:E1-e4. doi: 10.12788/jhm.3311.



Contact Information

Honora Englander, MD, FACP
Associate Professor of Medicine
Division of Hospital Medicine
School of Medicine
Oregon Health & Science University
englandh@ohsu.edu
Twitter: @honoraenglander