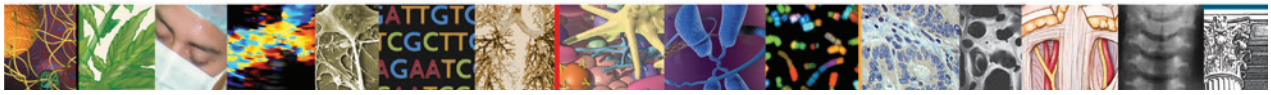

The NEW ENGLAND JOURNAL of MEDICINE

Perspective

FEBRUARY 27, 2025

The Changing Approach to Addiction — From Incarceration to Treatment and Recovery Support

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It's been more than 50 years since the United States launched a "war on drugs." History has demonstrated the ineffectiveness of "tough-on-crime" drug-use policies, including laws requiring mandatory minimum sentencing for possession of illicit drugs. Meanwhile, advances in the recognition of substance use disorder (SUD) as a treatable medical condition have led to the development of lifesaving evidence-based pharmacotherapies and psychosocial interventions.

Further advancement in treating SUD will require both short-term and long-term strategies. Many evidence-based protocols still rely on short-term interventions typically delivered over 12 weeks. But increasing the likelihood of sustained remission often requires years of complementary efforts addressing broader social needs alongside ongoing clinical care.

People remain at risk for SUD recurrence for years after initial remission.[1] After treatment initiation, it takes people an average of about 8 years — and four or five treatment or support-group engagements — to achieve sustained remission and an additional 5 years before their risk of meeting SUD criteria drops to that among members of the general public.[1,2] Addiction treatment has therefore broadened to encompass a continuity-of-care–based approach that builds on extensive advances in clinical treatments (e.g., extended-release medication for opioid use disorder [MOUD]) and includes long-term recovery support in the community.[1] New models integrating clinic-based care with community-based services provide a more holistic approach that could reduce the time to stable remission and support recovery.

When a person with SUD enters treatment, the situation may be likened to a building on fire, with clinicians implementing critical short-term interventions to extinguish the flames. After the fire is out, however, attention to scaffolding and building materials is necessary for people with SUD to rebuild their lives in a safer and more secure environment that helps prevent the fire from restarting. Policies focused on criminalization of drug use, such as those leading to arrests for drug possession, can block access to the "permits" and materials needed to begin rebuilding (e.g., by increasing the chance that people will be denied employment and educational opportunities). Linkage to supportive

environments and long-term services that provide access to this kind of "recovery capital"[1,2] can enhance "fireproofing" by creating conditions that facilitate healing and resilience and reduce the risk of SUD recurrence.

A growing array of highly cost-effective, community-based recovery-support services in the United States is helping to catalyze and sustain long-term healing.[1,3] These services include online and in-person offerings from mutual-aid organizations (e.g., Alcoholics Anonymous, SMART Recovery, and Women for Sobriety), recovery-coaching or peer-based services that help connect patients treated in emergency departments (EDs) to clinical and community programs, recovery residences that provide safe living environments for people beginning their recovery from SUD, recovery-support centers that offer a "one-stop shop" for various resources and services that can facilitate recovery, and recovery supports in educational settings (e.g., recovery high schools and student-specific recovery-support services on college campuses) and employment settings (e.g., "recovery ready" workplaces).[1]

Although the venues and contexts in which recovery-support services may be provided — including street outreach programs, mobile clinics, overdose-prevention sites, EDs, treatment courts, SUD clinics, and primary care offices — vary widely, the active therapeutic ingredients are similar across settings. Such services and venues are organized by and populated with peers in recovery from SUD who can inspire patients and instill hope, model recovery pathways, provide emotional and structural support, and share emotion-regulation and other coping skills.[1,2]

New research confirms the value of recovery-support services as extensions of clinical services. Peer-coaching models, for example, can bolster the historically suboptimal uptake and long-term use of MOUD (at least half of patients discontinue use within 6 months).[4] Integration of recovery-support services can also augment the effects of MOUD by helping people reconstruct social networks and find housing, employment, and educational opportunities (see table).[2]

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A recent modeling analysis projected that, whereas increased access to buprenorphine, fentanyl-focused harm-reduction services, and naloxone would prevent many near-term fatal opioid overdoses in the United States, recovery-support services would be the most effective intervention for reducing opioid use disorder recurrence after initial remission.[3] The Overdose Prevention Strategy of the Department of Health and Human Services recommends recovery-support services for this purpose. Peer workers are often reexposed to SUD-conditioned triggers, however, and trauma-informed peer supervision and other institutional supports may be needed to sustain these models.

A Cochrane review of studies of interventions for primary alcohol use disorder, which one of us coauthored, found that clinical linkage to mutual-aid recovery-support services leads to rates of continuous abstinence and remission that are 20 to 60% higher over 3 years than those achieved with other evidence-based treatments (e.g., cognitive behavioral therapy). Widely implementing such services could reduce U.S. health care costs by an estimated $15 billion per year.[5] Similarly, over a 2-year period, people with SUD who were randomly assigned to live in recovery residences were 52% more likely to be in remission and 86% less likely to have been involved in the criminal legal system than those assigned to live at home and receive usual SUD services and were 57% more likely to be employed; placement in recovery residences generated an estimated $30,000 in savings per person over the 2 years.[1]

Such clinic–community integration could accelerate healing among people with SUD and help more people join the ranks of the 23 million or so adults living in recovery in the United States (9.1% of the adult population).[1,2] Quality of life and functioning among people who have access to a one-stop shop for recovery resources and services provided by peer-recovery support centers become

Potential Benefits of Integration of Recovery-Support Services in Substance Use Disorder Treatment.*

Potential Benefits	Explanation
Enhanced treatment engagement and retention	
Increased treatment effectiveness	Recovery-support services can increase patient engagement in and commitment to treatment plans by means of peer support, community resources, and a sense of belonging.
Reduced relapse rates	New recovery-centric social networks can help people develop new coping skills and strengthen foundations laid by clinical interventions.
Reduced criminal recidivism	Engagement in recovery-support services is strongly associated with reduced arrests and criminal recidivism and increased employment and educational attainment.
Reduced burden on health care systems	
Cost savings	Participation in recovery-support services can reduce emergency department visits and hospitalizations.
Alleviation of strain on clinicians	Addressing nonclinical issues allows clinicians to focus on specialized medical care.
Promotion of seamless continuum of care	
Facilitation of transitions during and after treatment	Bridging gaps between clinical treatment and everyday life (e.g., by providing ongoing support related to social networks, jobs, education, housing, and health care) can facilitate transitions back into society.
Enhanced resilience and chances of sustained recovery	Recovery-support services offer long-term support, acknowledging that recovery is a lifelong journey.
Attention to social determinants of health	
Addressing challenges that can undermine recovery	Offering housing, job training, and peer coaching targets factors that can destabilize recovery; these services thus reduce stress and improve the odds of remission.
Promotion of holistic approach to recovery	Addressing broader contextual needs alongside clinical care can stabilize a patient's environment, making it more conducive to healing and recovery.
Reduced isolation and enhanced social engagement	
Exposure to role modeling	Peer role models provide insights that most clinicians cannot and can help normalize challenges, build therapeutic trust, and instill hope.
Emotional support and connectedness	Recovery-support services can help people build connections with others who understand their struggles, combatting loneliness and disconnectedness.
Fostering of empowerment, optimism, and self-efficacy	
Encouragement of self-management skills	Teaching relapse-prevention skills fosters independence and self-management. Patients engaged in recovery-support services can gain confidence navigating the challenges of recovery on their own, reducing their dependence on clinicians over time.
Reinforcement of positive identity	Emphasizing a positive self-identity separate from addiction can help patients develop a sense of purpose and enhance self-worth and motivation for recovery.
Reduction of stigma and enhancement of reintegration	
Reduction of stigma	Relationships with recovering peers can help combat self-stigma and contribute to a positive self-image and public perception.
Support for rebuilding social roles	Recovery-support services related to workforce reentry can help patients find employment, thereby enhancing reintegration into society.

* Data supporting potential benefits are from Kelly and Stout,[1] Kelly and White,[2] Stringfellow et al.,[3] Krawczyk et al.,[4] and Kelly et al.[5]

equivalent to those among members of the general public after an average of approximately 5 years (rather than the average of 15 years observed in previous studies among people in recovery).[1] Clinical and peer-based support services are being integrated at the city (e.g., Philadelphia) and state (e.g., Con-

necticut) levels, which has led to clinical, public health, and economic efficiencies.[2]

Positive findings from these initiatives have inspired proposed legislation that would require appropriation of at least 10% of federal SUD block-grant funding to implementation of recovery-support services and the establishment in 2021 of the Substance Abuse and Mental Health Services Administration's Office of Recovery. Medicaid and state departments of public or mental health are increasingly paying for services such as recovery coaching, although such funding remains suboptimal and should be increased. Stigma and custom continue to lead to underpayment of both the recovery-support and clinical SUD workforces, and role definitions and quality and performance benchmarks for recovery-support services are needed to improve reimbursement structures.

An audio interview with John Kelly is available at NEJM.org

The 2024 White House National Drug Control Strategy embraced greater interagency collaboration to expand payment for these services, but the extent to which the new federal administration will maintain this approach is unclear. Further evidence on recovery-support services should be forthcoming; the National Institute on Drug Abuse, in partnership with other National Institutes of Health sponsors, recently launched the Recovery Research Networks initiative to establish multistakeholder groups to build infrastructure, train researchers, and document effective approaches in this area.

These developments mark a new phase in society's understanding of SUD. During the past 50 years, approaches for addressing SUD have shifted away from the criminal legal system to the clinic — and they are now shifting toward greater clinic–community integration. Although additional drug-policy reforms are critical, and there have been examples of recriminalization and public health policy reversals, these shifts reinforce the need to continue to build on clinical stabilization and other medical interventions. Incorporating recovery-support services as a component of SUD treatment infrastructure is essential. Doing so could help reduce people's susceptibility to SUD recurrence by keeping the fire extinguished and increase the odds that some of the most vulnerable members of society will not only survive, but ultimately thrive.

Disclosure forms provided by the authors are available at NEJM.org.

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This article was published on February 22, 2025, at NEJM.org.

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DOI: 10.1056/NEJMp2414224

The Moral Injury of Inhaler Prescribing

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Writing a prescription for inhalers in the United States has come to involve difficult moral trade-offs. Many of these products, which are vital for helping patients with asthma or chronic obstructive pulmonary disease (COPD) to breathe, are also associated with societal harms — connected to the environment, public health, and the economy — that can worsen the very diseases that inhalers are designed to treat. A sense of unavoidable wrongdoing, or moral injury, has become a standard by-product of prescribing.

Metered-dose inhalers contain hydrofluoroalkanes (HFAs), which have more than 1000 times the global warming potential of carbon dioxide. These products account for approximately 3% of the carbon footprint of the United Kingdom's National Health Service and