



# Health Affairs Blog

## To Battle The Opioid Overdose Epidemic, Deploy The 'Cascade Of Care' Model

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Despite a plateau in opioid prescribing, opioid-related overdose deaths have continued to climb in epidemic proportion. Much of the recent rise is related to unpredictable adulteration of heroin and black market pills with fentanyl and other potent synthetics. However the death rate also reflects longstanding treatment gaps; a majority of the 2.4 million individuals in the United States with an opioid use disorder do not receive evidence based medication-assisted treatment (MAT) with methadone, buprenorphine, or long-acting injectable naltrexone.

The 21st Century Cures Act charged the Substance Abuse and Mental Health Services Administration (SAMHSA) with disbursing nearly \$1 billion over the next two years, prioritizing states hardest hit by overdose. SAMHSA's State Targeted Response to the Opioid Crisis Grants (STR) funding announcement requires that states perform needs assessments and develop strategic plans for increasing access to evidence-based treatment with MAT under a chronic care model. Further, states are to periodically review performance data they report to SAMHSA, develop performance measures to assess progress, and use this information to improve management. A unifying framework with standardized benchmarks to track uptake of MAT and patient outcomes across states would contribute greatly to this effort to reduce overdose death, especially if funding is linked with outcomes.

Fortunately, there is a model from the recent past policymakers can draw upon to formulate such a framework. Within two years of the introduction of anti-retrovirals for the treatment of HIV in the mid-1990s, the US AIDS mortality rate was cut in half. Precedent for the rapid uptake of a lifesaving treatment across the health care system producing rapid and measureable population level benefits

provides hope for ameliorating the rising toll of opioid-related overdose deaths. Revisiting how the public health community established the systems needed to achieve this result can serve as a useful guide for states and policymakers to set up the most effective response to the current crisis.

## Repurposing The HIV/AIDS Framework

The “Cascade of Care” framework introduced in the HIV/AIDS field has been suggested generally as a model for addressing gaps in addiction care. We propose the cascade of care framework is an especially suitable framework for opioid use disorder treatment and for developing national benchmarks to assess the impact of STR funding on rates of opioid overdose.

Like HIV, opioid use disorder is a chronic, relapsing, often fatal disorder that typically requires long-term medication treatment to be effective. Similar to the goal of achieving HIV viral suppression, combating opioid overdose requires success along sequential stages, from screening and detection of opioid use disorder, to linkage to care, to medication initiation, and long-term retention.

The HIV Cascade of Care has served as an organizing framework by codifying quality outcome measures at each stage along the cascade, targeting interventions to overcome barriers, and comparing effectiveness of interventions across populations and settings. As national benchmarks, we propose performance measures under STR funding to track success at each of the following stages of an Opioid Treatment Cascade at the state level:

1. Diagnosis among those affected
2. Linkage to care among those diagnosed
3. Medication initiation among those entering care
4. Retention for at least six months among those initiating medication
5. Continuous abstinence among those retained

Figure 1 depicts the current treatment gap based on national estimates and a 90 percent goal of success at each stage, similar to the 90-90-90 goal stemming from the Cascade set forth by UNAIDS for improving HIV care outcomes globally by the year 2020.

In order to effectively track and improve patient outcomes along the Cascade, the current substance abuse treatment system must reorient itself to track all patients who enter care for opioid use disorder, especially including those who discontinue medication treatment or stop appearing for appointments. Intensive case management with patient navigators developed as models in HIV, tuberculosis, and diabetes care and can be adapted to substance abuse treatment. Patient navigators could deploy peers and would serve as a natural bridge to long-term community-based recovery services following retention in treatment. A shift to value-based care, rather than reimbursement under fee-for-service arrangements, will require restructuring financial incentives. STR funding for the states' single state agencies, which license and contract with substance abuse treatment providers, could be leveraged for such purposes (i.e. incentive payments for the number of patients retained on MAT for over six months).

Information obtained about individuals who “fall off” the cascade will be key for designing interventions and improving outcomes. Prior studies have suggested as many as 90 percent of patients with opioid use disorders can be tracked for over six months following intake visits that collect comprehensive contact information including multiple collateral contacts.

## Overcoming Barriers

Critical barriers currently undermine each stage of the Opioid Treatment Cascade. They span patient, provider, and policy domains, and many have been recalcitrant to intervention. The same was initially true of barriers in the HIV/AIDS field, yet substantial progress has been made under the organizing cascade framework.

While most affected individuals eventually receive an opioid use disorder diagnosis (detection) by a health care professional during their lifetime, only 20–40 percent are estimated to receive care in any given year. Potential interventions to facilitate the flow of individuals into care include outreach (including efforts for justice-involved individuals at reentry), harm reduction-based programs offering naloxone and sterile syringes, Screening Brief Intervention and Referral to Treatment (SBIRT), “warm hand offs” following diagnosis or overdose, and intensive case management.

Beyond linkage to care, it is crucial that those in care initiate MAT to pre-empt relapse, stave withdrawal, reduce cravings, and protect against overdose. Innovative reimbursement models incentivizing evidence-based practices under Medicaid redesign, voucher-based payments for medications for underinsured and uninsured patients, contingency management to improve adherence, and expanding telemedicine all offer opportunities for initiating MAT among patients in care.

Finally, patient retention has long plagued the field, with roughly 50 percent of patients remaining in active treatment at six months. In addition to impaired patient insight, financial difficulties, insurance obstacles, discrimination, and stigma, there is also a tendency among many well-meaning clinicians to prematurely taper patients off maintenance medications. Motivational interviewing, academic detailing, and family engagement can improve success at each stage of the Cascade, especially long-term adherence to medication and retention in care.

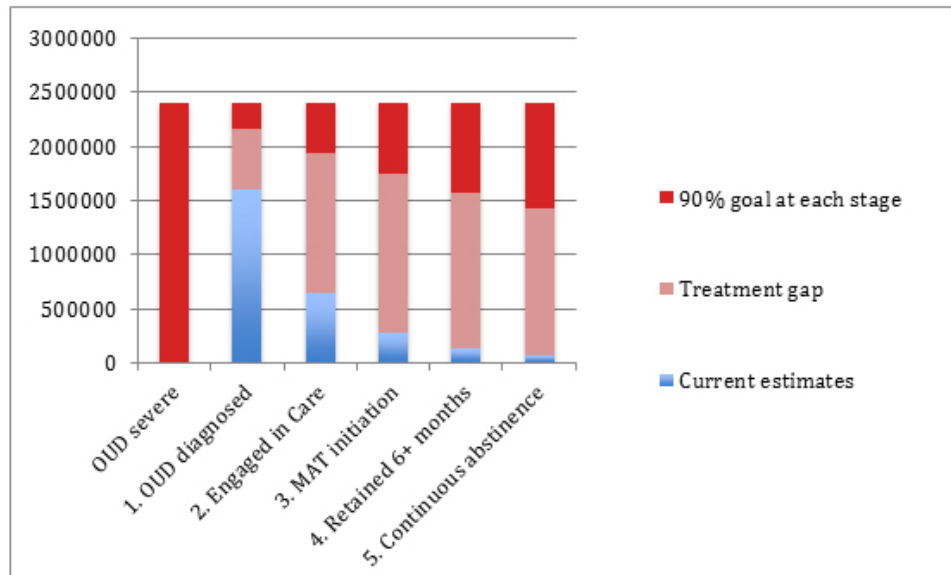
## The Importance Of Quality Metrics

Similar to serologically confirmed undetectable HIV viral load, continuous abstinence from opioids can be objectively monitored with routine toxicology and serve as a biomarker for a primary outcome. Patients abstinent from opioids and on maintenance treatment with buprenorphine, methadone, or injectable naltrexone are at minimal risk for opioid overdose.

Applying quality metrics informed by the Cascade of Care to treatment of opioid use disorder holds great promise to help ensure optimal returns on federal funding for areas hardest hit by overdose. Treatment programs with historically low use of MAT in the face of the worsening epidemic need compelling incentives to change practice. Identifying which patients struggle at which stages of the Cascade to help target clinical and policy interventions can help STR funding achieve its greatest impact.

While the scale of the opioid crisis presents states and policymakers with a daunting and urgent task, adapting the Cascade of Care model to fit today's crisis will help expedite and scale the programs needed to combat this epidemic.

### Figure 1. Current Treatment Gap In The Substance Abuse Treatment System Along Opioid Use Disorder Cascade Of Care (As Of 2014)



OUD= Opioid use disorder; MAT= Medication assisted treatment. Estimates extrapolated from Substance Abuse and Mental Health Services Administration, Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings, NSDUH Series H-48, HHS Publication No. (SMA) 14-4863. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014. Stage 1 refers to successfully diagnosing 90 percent of affected individuals with OUD; Stage 2 refers to successfully engaging 90 percent of those diagnosed in care; Stage 3 refers to 90 percent of those in care initiating a MAT modality (i.e. buprenorphine, methadone, or injectable naltrexone); and Stage 4 refers to 90 percent of those who initiate MAT achieving a minimum six months of treatment retention and in Stage 5, continuous abstinence.

## HEALTH POLICY LAB

ASSOCIATED TOPICS: COSTS AND SPENDING, POPULATION HEALTH, PUBLIC HEALTH, QUALITY

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