Using the Cascade of Care Model as a Framework for Evaluating Opioid Use Disorder Treatment Programs: Opportunities and Challenges

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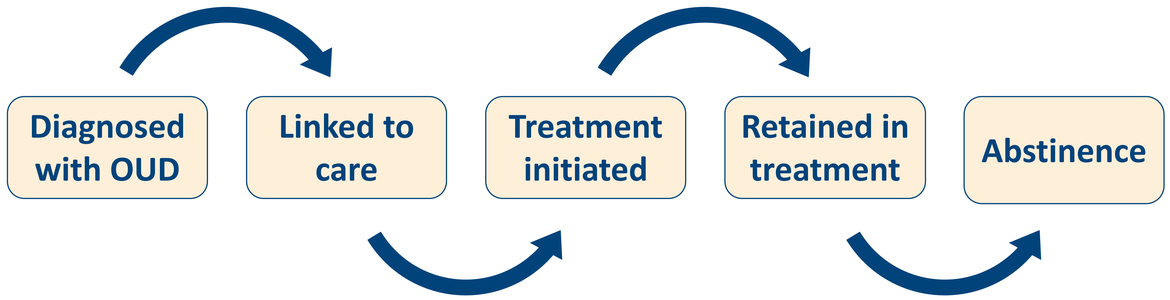
BACKGROUND

- Medication-assisted treatment (MAT) for opioid use disorder (OUD) is an evidence-based approach that reduces the risk of fatal overdose.
- Many healthcare organizations are implementing or expanding MAT programs ➔ growing need for monitoring and evaluation of these programs.
- The **cascade of care model** (originally developed for HIV/AIDS treatment) can be applied to OUD and used as an evaluation framework for MAT programs



But operationalizing this model can be very challenging!

- Standardized measures for the OUD cascade are still in development
- Many organizations have limited capacity for data analytics and reporting
- Implementing new documentation or data collection systems is not always feasible and some existing data sources may not be easily accessible

How can evaluators and healthcare systems apply the cascade of care model in a way that is feasible and useful?

OUR APPROACH

- The Institute for Community Health (ICH) is the external evaluator for three community health center (CHC)-based OUD treatment programs that are seeking to improve MAT access for the populations at highest risk of overdose and death.
- ICH reviewed the literature + gathered input from the three programs + gathered input from a content expert ➔ **Collaboratively** developed evaluation measures that leveraged available data and were meaningful and relevant to the programs
- Provide technical assistance to facilitate reporting

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CHALLENGES AND SOLUTIONS

	Definitions	Data sources and analytical capacity	Data cleaning

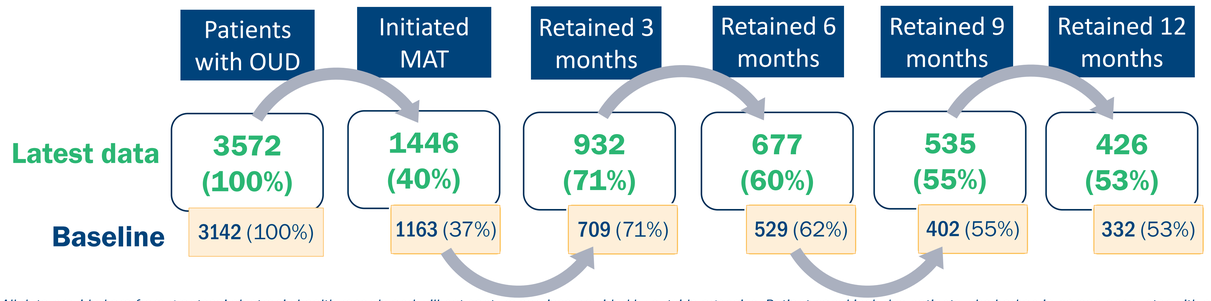
CHALLENGES	• Retention in treatment was particularly challenging to define
	  • Prescription-based, visit-based, or both?
	  • How much of a gap to allow?
	  • How long counts as "retained"?
	• CHCs had varying methods for identifying patients with OUD
		• CHCs had limited access to claims data or pharmacy data
		• Substance use data is sometimes suppressed or excluded from claims data (42 CFR Part 2)
		• CHCs had limited access to data from partner organizations
		• CHCs had limited capacity for coding more complex measures
			• Tox screen data was incomplete or outdated for most patients
			• Prescription data was messy – missing start/end dates, unusually long prescription lengths, overlapping prescriptions
			• Standard prescription length and refill protocol varied by program

SOLUTIONS	• Decided on prescription continuity measure for retention, allowing gaps up to 29 days
	  • Report 3/6/9/12 month retention
	• Patient population defined using OUD-related encounter diagnosis codes + additional criteria for some CHCs depending on the population of focus
		• Created measures using only electronic health record data
		  • Prescription measures assessed prescriptions *written* (not filled)
		• Recommended that grantees set aside $$ for reporting
		• Met with the analysts across organizations to discuss definitions
		• Provided analytical assistance and capacity building to support coding
			• Excluded tox screens more than 45 days old
			• De-emphasized final part of cascade (abstinence) due to incomplete data and growing focus on harm reduction
			• Excluded prescriptions with lengths of 90+ days
			• Assigned median length to buprenorphine prescriptions missing a start or end date
			• Excluded prescriptions missing both dates

RESULTS

"It's been a terrific exercise for us to collect this data – it jumpstarts our efforts to evaluate our office-based addiction treatment program more broadly with the cascade of care framework"

- Chief Medical Officer of a participating community health center



All data provided are from grantees' electronic health records and will not capture services provided by outside agencies. Patient panel includes patients who had an in-person encounter with an OUD diagnosis code during the time period (between 1/1/2017 and 6/30/2018 for baseline and between 11/1/2017 and 4/30/2019 for latest data). MAT initiation is defined as having a prescription for buprenorphine or injectable naltrexone during the time period. Retention in MAT is assessed using prescription data and is based on the number of consecutive days with an active prescription with gaps no longer than 29 days. Retention percentages are calculated for patients who started MAT early enough to qualify for the given retention timeframe.