Medication-Assisted Treatment (MAT) in High-Need Areas: How Health Centers can Improve Access to Treatment for Opioid Use Disorder with Vulnerable Populations

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Abstract

Background: The opioid epidemic is adversely affecting cities across the US and disproportionately impacting vulnerable populations. Health centers are well-positioned to increase access to treatment. 

Objective: To identify health centers located in high-need areas based on drug poisoning mortality and explore their capacity to provide medication-assisted treatment (MAT). 

Methodology: Outlier and hot-spot analysis identify high-need counties based on drug poisoning mortality. We will overlay mapped health centers and stratify by current and potential capacity for MAT (based on their number of Drug Addiction Treatment Act of 2000 (DATA) waived providers and patients receiving MAT). 

Results: The results include maps and lists of health centers stratified by need (defined by drug-related mortality), health center capacity (defined by number of DATA waived providers), and MAT use (defined by the number of MAT patients). 

Discussion: The results can be used to support the role of health centers in providing treatment for opioid use disorder and inform future research and policies. For example, high-need awardees with low capacity can be targeted for outreach and funding to increase number of DATA waived providers; high-capacity low current MAT use can be targeted for research, outreach, and technical assistance to close gaps in Opioid Use Disorder (OUD) care; and finally, high-need awardees with high capacity and high current MAT use can be targeted for research to understand why they have been successful and how they have overcome barriers.

Research Questions

What is health center MAT capacity in high-need counties (based on drug poisoning mortality)?
Where are health centers with MAT capacity but no patients utilizing MAT?

Methodology

Step 1: Aggregate the number of drug poisoning deaths (2013-2015) by county (remove counties with zero deaths)
Step 2: Use Empirical Bayes (EB) approach to estimate death rate by county (adjusting for total population)
Step 3: Create excess risk maps to identify counties with drug poisoning death rates 1.5 X national average
Step 4: Use Local Moran’s I (with EB rates) to identify clusters of drug poisoning death rates hot spot counties
Step 5: Overlay health centers and stratify by MAT capacity (# DATA waived providers; # patients receiving MAT)

Defining High-Need

Counties with drug poisoning death rates 1.5 X higher than national average (Excess Risk)
OR
Counties that are part of a drug poisoning death rate “hot spot”

Priority Health Center Criteria

High-Need, No MAT Capacity
Health Centers with No DATA Waived Provider
AND
Located in High-Need County

High-Need, MAT Capacity, No MAT Patients
Health Centers with at least 1 DATA Waived Provider
AND
No MAT Patients AND Located in High-Need County

All Health Centers

Results

Priority Areas – 368 Counties
Drug Poisoning Mortality
(ICD-10 Codes – X40-X44, X60-X64, Y10-Y14)
Priority Counties – 25.8 rate per 100,000
All Counties – 15.2 rate per 100,000

All Health Centers (HCs) – 1,430
# HCs with MAT Capacity – 588
# HCs w/MAT Capacity, No MAT Patients – 117
2,973 Physicians, 64,596 Patients
22 Patients per Physician

HCs in Priority Areas – 281
# HCs in Priority Areas w/MAT Capacity - 156
HCs in Priority Areas w/MAT Capacity,
No MAT patients - 32
739 Physicians, 24,254 Patients
33 Patients per Physician

Conclusions

The results can be used to support the role of health centers in providing treatment for opioid use disorder and inform future research and policies.

• high-need awardees with low capacity can be targeted for outreach and funding to increase number of DATA waived providers;
• high-need awardees with high capacity but low current MAT use can be targeted for research, outreach, and better understand how to close gaps in OUD care;
• and finally, high-need awardees with high capacity and high current MAT use can be targeted for research to understand why they have been successful and how they have overcome barriers.