

## Background

In the past 20 years, the United States has experienced a dramatic increase in the use of opioid drugs, resulting in a 380% rise in the number of drug-related poisoning deaths from 1999 to 2017. As access to prescription opioids has declined, the rate of heroin-related deaths has increased by 620% from 2002 to 2015. This shift toward heroin is likely to be accompanied by increasing prevalence of drug injection. A recent analysis identified 220 counties as being highly vulnerable to HIV or hepatitis C (HCV) outbreaks among people who inject drugs (Fig. 1)<sup>1</sup>.

The high risk in these counties can be mitigated by two public health measures:

- The delivery of effective treatment programs to reduce drug injection, and
- The provision of clean injection equipment to reduce exposure to blood-borne pathogens.

This analysis assesses geographic access to treatment and harm reduction in counties that are highly vulnerable to infectious disease outbreaks. In so doing, it both describes the state of access to harm reduction and addiction treatment in the U.S. and builds a framework to guide the future expansion of addiction treatment and syringe services programs (SSPs).

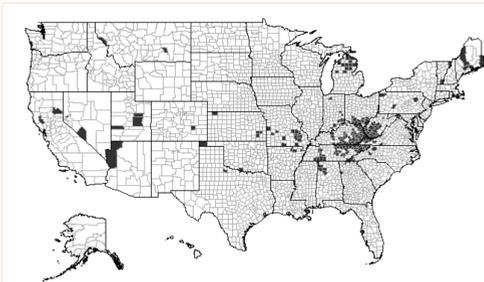


Figure 1. Counties vulnerable to an HIV and/or HCV outbreak among people who inject drugs<sup>1</sup>.

## Methodology

County-level access to the following two services is measured: substance use disorder treatment facilities and syringe services programs.

### Data sources

- Locations of substance use disorder treatment facilities are taken from N-SSATS (2005-2017),<sup>2</sup> which identifies facilities that report delivering medication-assisted treatment (MAT) with buprenorphine, naltrexone, or methadone and facilities that accept patients reimbursed by Medicaid.
- The locations of SSPs are taken from the North American Syringe Exchange Network's online database.<sup>3</sup> Facilities that report not delivering syringes are excluded.

### Geographic access

- Counties containing at least one treatment facility are identified by facility or SSP address
- Minimum distance to travel to a facility is measured between ZIP code tabulation area centroids, by haversine equation.

### County vulnerability

Counties are identified as being highly vulnerable to an HIV and/or HCV outbreak in the original analysis.<sup>1</sup> While the original analysis ranks vulnerability for the top 220 counties, a binary indicator for 'high vulnerability' is instead used in this analysis.

## Access to treatment and syringe services program

- 11,928 facilities in the U.S. reported providing treatment for substance use disorders and 327 SSPs were operating in 2017.
- 41.3% of facilities report providing at least one form of medication-assisted treatment (MAT), 62.6% accept Medicaid, and 28.0% both provide any MAT and accept Medicaid (Fig. 2)
- 67.1% of counties contain a treatment facility, 32.8% contain a facility providing MAT and accepting Medicaid, and 6.7% contain a SSP (Fig. 3)

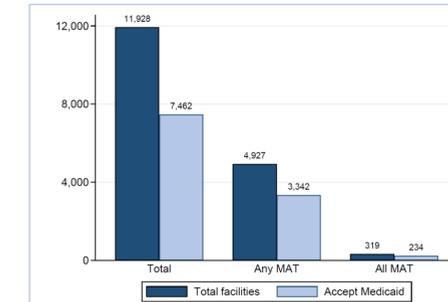


Figure 2. Facilities that offer any MAT or all three forms of MAT (buprenorphine, naltrexone, and methadone).

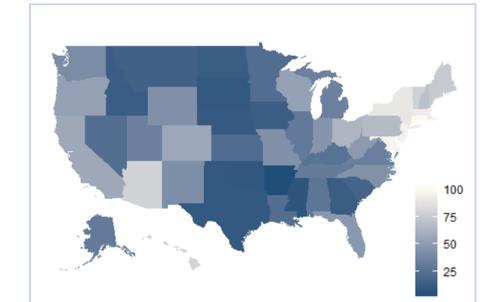


Figure 3. Percentage of counties with at least one treatment facility offering MAT and accepting Medicaid.

## Distance to travel to services

- The average distance required to travel to an outpatient substance use disorder treatment facility is 11.2 miles, 22.7 miles for a facility providing at least one form of MAT and accepting Medicaid, and 109.5 miles for a SSP (Fig. 4).
- Coastal states with higher population density had the shortest distances to travel, with an average of ≤ 5 miles in the District of Columbia, Rhode Island, New Jersey, and Massachusetts. The average distance was >50 miles in Arkansas, Nevada, Montana, and Alaska.
- More than half of all SSPs are located in five states (California, New Mexico, Washington, New York, and Kentucky) and twelve states do not report any.

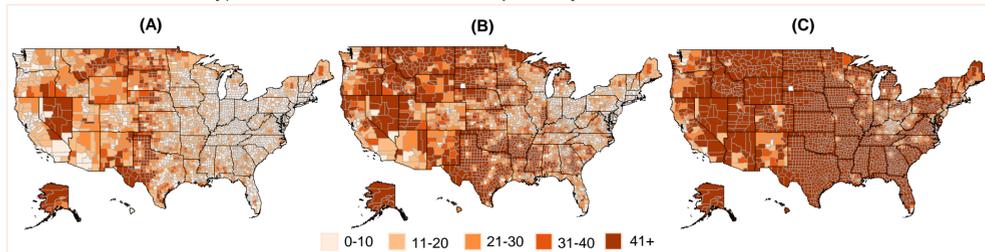


Figure 4. Average distance to (A) an outpatient substance use disorder facility, (B) an outpatient facility providing at least one form of medication-assisted treatment and accepting Medicaid, and (C) a syringe services program. Distances are in miles.

## Access to services and vulnerable counties

- Historically, counties with high vulnerability have had limited access to substance use treatment.
- The percentage of counties containing at least one treatment facility that accepts Medicaid and provides MAT rose from 1.8% in 2005 to 35.0% in 2017 in the most vulnerable counties, and from 7.2% in 2005 to 32.6% in 2017 for the rest of the country (Fig. 5)
- In 2017, the average distance to travel to a facility providing MAT and accepting Medicaid was shorter in vulnerable counties than in the rest of the country (32.0 vs. 20.5 miles), and also shorter for SSPs (113.7 vs. 53.5 miles)

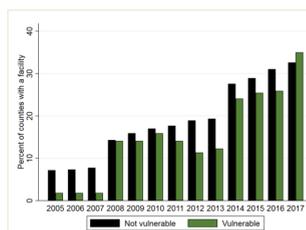


Figure 5. Percentage of counties with an outpatient, Medicaid-accepting facility offering at least one form of MAT.

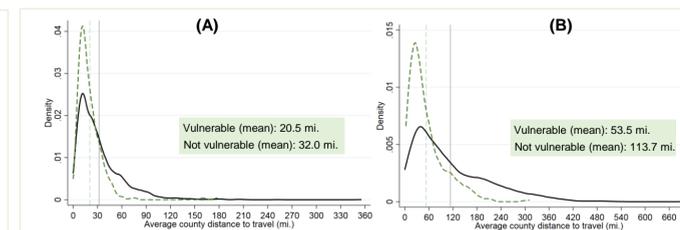


Figure 6. Average distance to (A) an outpatient facility providing at least one form of medication-assisted treatment and accepting Medicaid or (B) an SSP.

## Conclusion

- Access to MAT in the U.S. is limited, particularly for Medicaid recipients, but has increased considerably since 2005.
- Counties that are vulnerable to HIV and/or HCV outbreaks among people who inject drugs have historically had less access to treatment and harm reduction services than the rest of the country.
- Nationally, access to syringe services programs is extremely low, with the average distances to travel to facilities prohibitively high.
- Progress has been made in increasing access to services in vulnerable counties, with county-level access in vulnerable counties surpassing the rest of the country in 2017.
- Reducing opioid-related harm and disease outbreaks will require ongoing efforts to increase access to services, particularly in states in the West, Midwest, and Southeast.

### Limitations

- Geographic distance is just one metric of access. This analysis does not measure other facets such as the capacity of treatment and harm reduction services, the affordability of programs, or the acceptability of services. As such, geographic proximity to a facility should not be interpreted in isolation or as a guarantee of access to services.