

# **Arizona Center for Rural Health and Arizona State Office of Rural Health (SORH) Webinar Series**

The SORH provides technical assistance to rural stakeholders to disseminate research findings, policy updates, best-practices and other rural health issues to statewide rural partners and stakeholders.



# Arizona State Office of Rural Health



THE UNIVERSITY OF ARIZONA  
MEL & ENID ZUCKERMAN COLLEGE OF PUBLIC HEALTH

Center for Rural Health

This webinar is made possible with the support of our partners:



ARIZONA  
TELEMEDICINE  
PROGRAM



SOUTHWEST  
TELEHEALTH  
RESOURCE · CENTER™

TRC

## Webinar Tips & Notes



Audience is muted during the presentation.

Enter your questions into the chat box.

Please fill out the post-webinar survey.

Webinar is being recorded.

Recording will be posted on the

AzCRH [www.crh.arizona.edu/](http://www.crh.arizona.edu/) and

SWTRC [www.southwesttrc.org/](http://www.southwesttrc.org/)

## Questions and Discussion:

Please type your questions and comments into the Zoom Webinar Platform Chat box.

## Survey:

[https://uarizona.co1.qualtrics.com/jfe/form/SV\\_1AKTGXhSxUpZOmi](https://uarizona.co1.qualtrics.com/jfe/form/SV_1AKTGXhSxUpZOmi)

# **Arizona Center for Rural Health and Arizona State Office of Rural Health (SORH) Webinar Series**

CONTACT:

Jennifer Peters

[petersjs@arizona.edu](mailto:petersjs@arizona.edu)

Find this and our previous webinars at:

<http://www.crh.arizona.edu/programs/sorh/webinars>

# The Behavioral Healthcare Workforce and Access to Medication for Opioid Use Disorder Treatment in Rural Arizona

September 16, 2021



THE UNIVERSITY OF ARIZONA  
MEL & ENID ZUCKERMAN COLLEGE OF PUBLIC HEALTH

**Center for Rural Health**

# Presenters

---



**Bryna Koch, MPH** has worked at the Arizona Center for Rural Health (AzCRH) since 2016. At the Center Ms. Koch supports the programs and projects by providing data collection, management, analysis, and reporting expertise. Currently Bryna focuses on health workforce data collection, synthesis, and reporting. Ms. Koch is also a doctoral candidate in the Public Health Policy and Management program at the University of Arizona, College of Public Health. Her research interests are the impacts of major policies like the Affordable Care Act (ACA) on health insurance coverage, utilization, and outcomes for underserved and vulnerable populations.

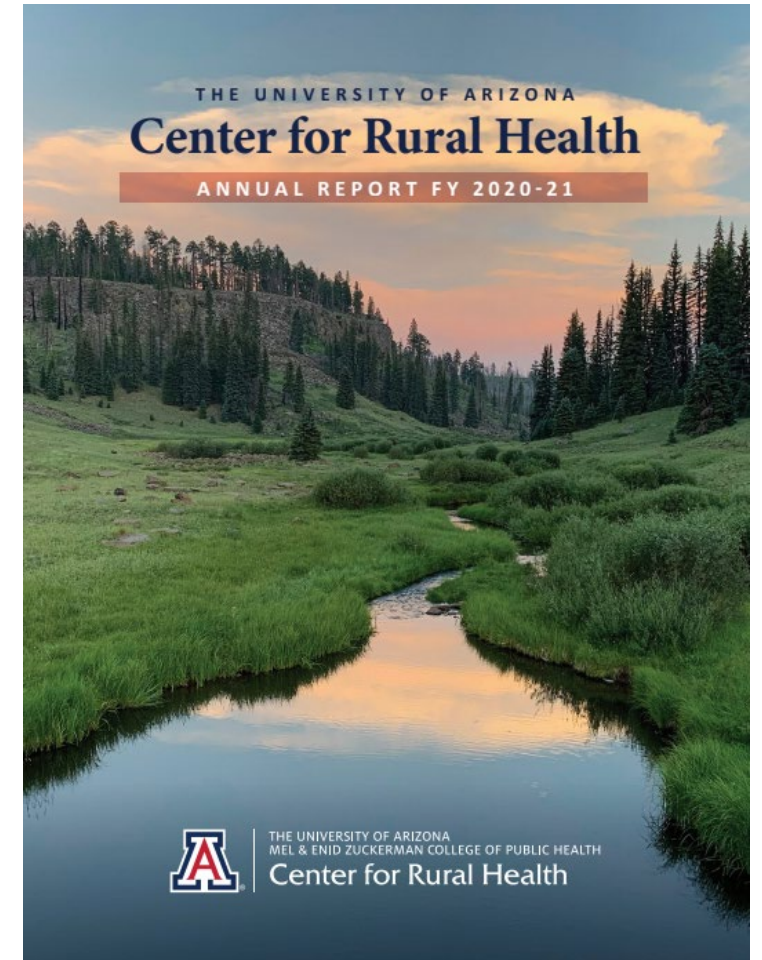


**Dr. Benjamin Brady** is an Assistant Research Professor at UArizona's Center for Rural Health in the Zuckerman College of Public Health and a Faculty Director at the Comprehensive Pain and Addiction Center in the College of Medicine. He has worked in the field of substance use prevention and treatment for eight years, with experience in tobacco cessation, opioid overdose prevention, medication assisted treatment (MAT), and MAT workforce distribution across geographic and clinical settings. Dr. Brady has graduate degrees in sociology, health promotion, and health policy and management.

# Arizona Center for Rural Health

---

The **AzCRH** Mission is to improve the health & wellness of rural and vulnerable populations



<http://crh.arizona.edu>



# Learning Objectives

---

1. Describe the behavioral health needs in rural Arizona.
2. Describe the distribution of the behavioral healthcare workforce and shortages in rural Arizona.
3. Describe the current context and need for access to Medication for Opioid Use Disorder (MOUD) Treatment in rural Arizona.
4. Identify opportunities for improving access to behavioral health care and MOUD treatment in rural Arizona.

# Report & Article

## The Arizona Behavioral Health Workforce

NOVEMBER 2020



 THE UNIVERSITY OF ARIZONA  
MEL & ENID ZUCKERMAN COLLEGE OF PUBLIC HEALTH  
Center for Rural Health

The Arizona Behavioral Health Workforce

## Federally Qualified Health Centers Can Expand Rural Access to Buprenorphine for Opioid Use Disorder in Arizona

Benjamin R Brady<sup>1,2</sup> , Rachel Gildersleeve<sup>1,3</sup>, Bryna D Koch<sup>1</sup>,  
Doug E Campos-Outcalt<sup>1</sup> and Daniel J Derksen<sup>1,4</sup>

<sup>1</sup>Arizona Center for Rural Health, Mel and Enid Zuckerman College of Public Health, University of Arizona, Tucson, AZ, USA. <sup>2</sup>Comprehensive Pain and Addiction Center, Department of Pharmacology and Anesthesiology, University of Arizona, Tucson, AZ, USA. <sup>3</sup>Community Research, Evaluation and Development, Norton School of Family and Consumer Sciences, University of Arizona, Tucson, AZ, USA. <sup>4</sup>Office of the Senior Vice President for Health Sciences, University of Arizona, Tucson, AZ, USA.

Health Services Insights  
Volume 14: 1-9  
© The Author(s) 2021  
Article reuse guidelines:  
sagepub.com/journals-permissions  
DOI: 10.1177/11786329211037502



**ABSTRACT:** Medication for Opioid Use Disorder (MOUD) is recommended, but not always accessible to those who desire treatment. This study assessed the impact of expanding access to buprenorphine through federally qualified health centers (FQHCs) in Arizona. We calculated mean drive-times to Arizona opioid treatment (OTP) locations, office-based opioid treatment (OBOT) locations, and FQHCs clinics using January 2020 location data. FQHCs were designated as OBOT or non-OBOT clinics to explore opportunities to expand treatment access to non-OBOT clinics (potential OBOTs) to further reduce drive-times for rural and underserved populations. We found that OTPs had the largest mean drive times (16.4 minutes), followed by OBOTs (7.1 minutes) and potential OBOTs (6.1 minutes). Drive times were shortest in urban block groups for all treatment types and the largest differences existed between OTPs and OBOTs (50.6 minutes) in small rural and in isolated rural areas. OBOTs are essential points of care for opioid use disorder treatment. They reduce drive times by over 50% across all urban and rural areas. Expanding buprenorphine through rural potential OBOT sites may further reduce drive times to treatment and address a critical need among underserved populations.

**KEYWORDS:** Opioid substitution treatment, health services accessibility, geographic information systems, opioid-related disorders

**RECEIVED:** January 15, 2021. **ACCEPTED:** July 16, 2021.

**TYPE:** Original Research

**FUNDING:** The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This project was supported by funding from the Arizona Area Health Education Center.

**DECLARATION OF CONFLICTING INTERESTS:** The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**CORRESPONDING AUTHOR:** Benjamin R Brady, Arizona Center for Rural Health, Mel and Enid Zuckerman College of Public Health, University of Arizona, 1295 N Martin Avenue, Tucson, AZ 85724, USA. Email: brb66@arizona.edu

Federally Qualified Health Centers Can Expand Rural Access to Buprenorphine for Opioid Use Disorder in Arizona

# Acronyms

---

## Acronyms

**AMI:** Any Mental Illness

**SUD:** Substance Use Disorder

**HHS:** Health and Human Services

**SAMHSA:** Substance Abuse and Mental Health  
Services Administration

**HRSA:** Health Resources and Services  
Administration

**HPSA:** Health Professional Shortage Area

**RUCA:** Rural Urban Commuting Area

**NP:** Nurse Practitioner

**MOUD:** Medication for Opioid Use Disorder

**Bup:** Buprenorphine

**OTP:** Opioid Treatment Program

**OBOT:** Office Based Opioid Treatment

**FQHC:** Federally Qualified Health Center



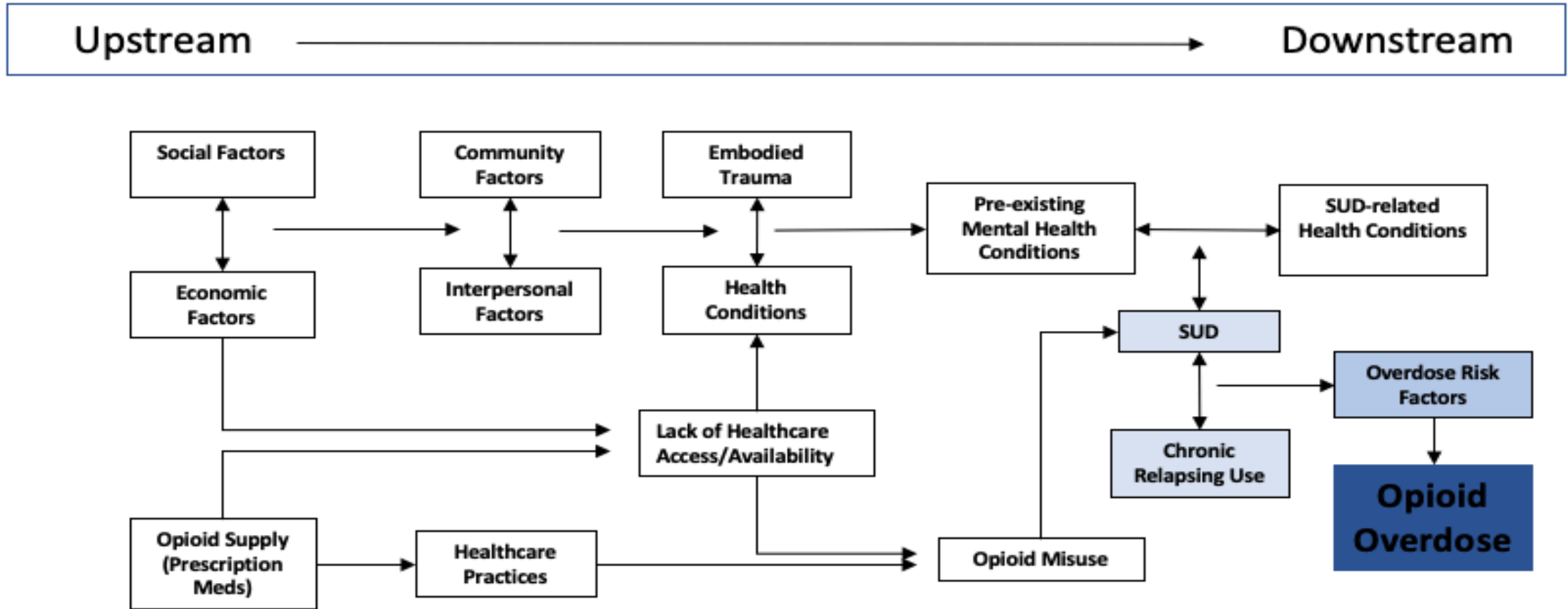
# Part 1 – Need for Services

# Behavioral Health

---

- Behavioral health includes mental health, substance use disorders (SUD), and co-occurring disorders, the presence of both mental health and substance use disorders.
- “Mental health and substance use disorders affect people from all walks of life and all age groups. These illnesses are common, recurrent, and often serious, but they are treatable and many people do recover.”
- For people experiencing substance use disorder “Substance use disorders occur when the recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.”
- Resources on reducing stigma

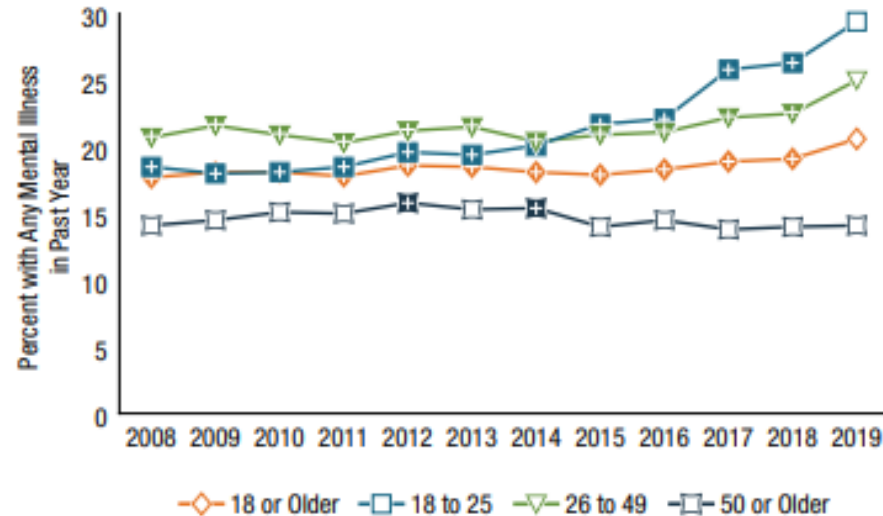
# Mental Health and Substance Use Disorders



# National Survey of Drug Use and Health 2019

- 20.6% (51.5 million) of adults reported any mental illness (AMI) in the past year
- 26.0% (13.3 million) perceived an unmet need for mental health services in the past year.

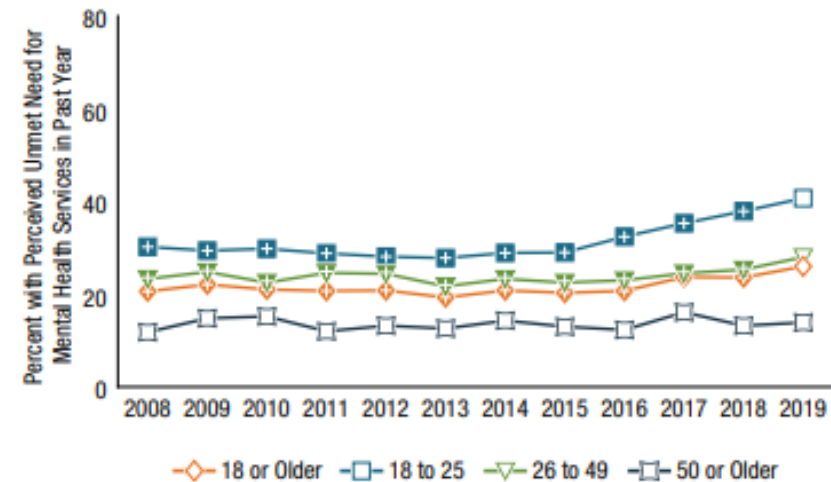
**Figure 51. Any Mental Illness in the Past Year among Adults Aged 18 or Older: 2008-2019**



\* Difference between this estimate and the 2019 estimate is statistically significant at the .05 level.

NSDUH, 2019.

**Figure 77. Perceived Unmet Need for Mental Health Services in the Past Year among Adults Aged 18 or Older with Any Mental Illness in the Past Year: 2008-2019**



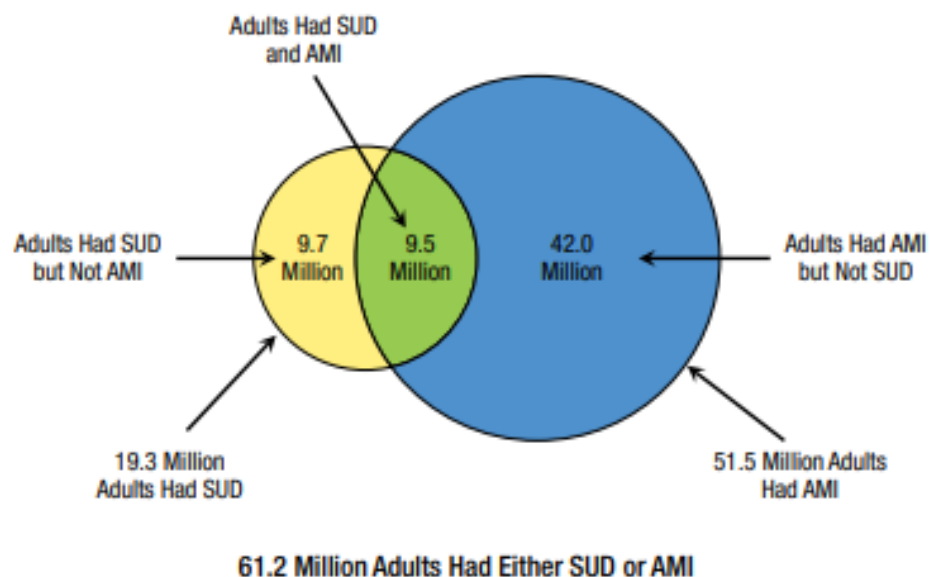
\* Difference between this estimate and the 2019 estimate is statistically significant at the .05 level.

NSDUH, 2019.

# NSDUH 2019

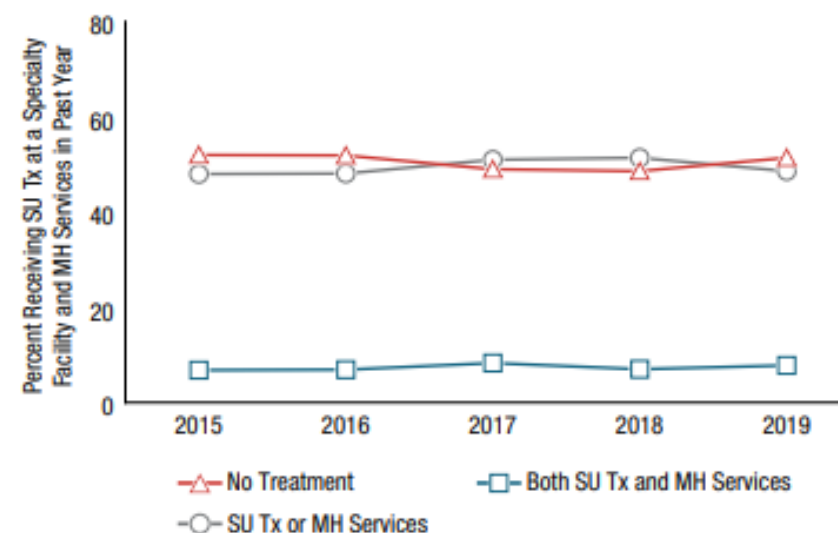
- 24.5% of adults (61.2 million) had either AMI or an SUD in the past year
- 3.9% (9.7 million) had an **SUD alone**
- 3.8% (9.5 million) had **both AMI and an SUD**, almost half (4.6 million) received either substance use treatment at a specialty facility or mental health services in the past year

**Figure 56. Past Year Substance Use Disorder (SUD) and Any Mental Illness (AMI) among Adults Aged 18 or Older: 2019**



NSDUH, 2019.

**Figure 80. Receipt of Substance Use Treatment at a Specialty Facility and Mental Health Services in the Past Year among Adults Aged 18 or Older with Past Year Substance Use Disorder and Any Mental Illness: 2015-2019**



NSDUH, 2019.



# Arizona (NSDUH 2018-19 )

---

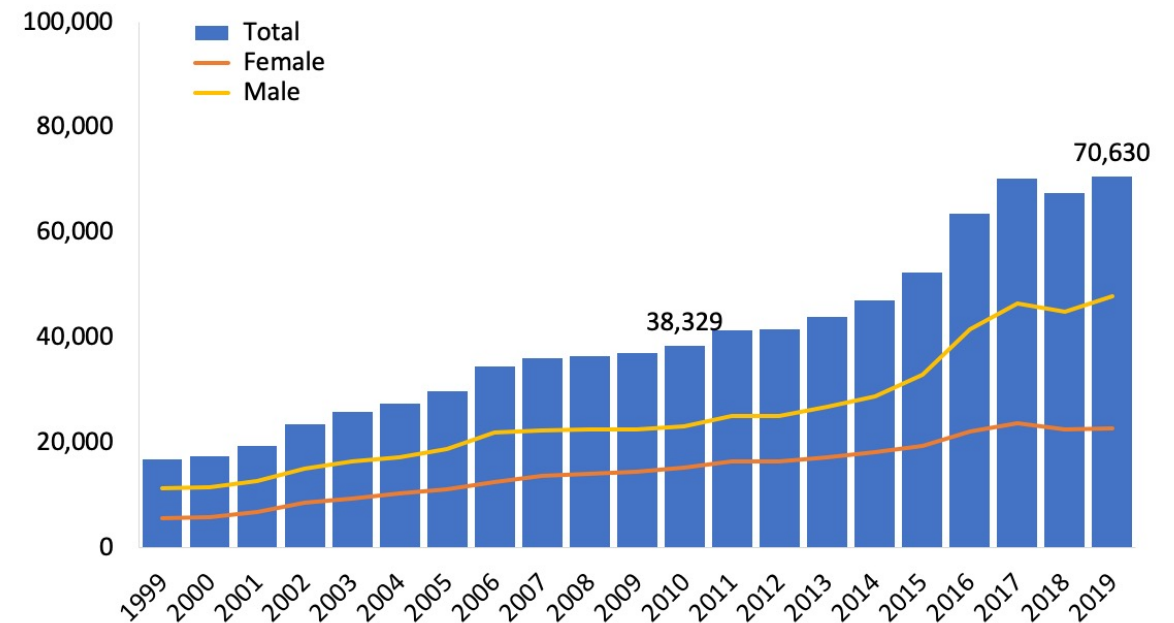
## Arizona Substance Use Disorder & Mental Illness Estimates NSDUH, 2018-2019

	Percent (CI)	US Percent (CI)
Substance Use Disorder in the Past Year	7.11 (5.93, 8.85)	7.74 (7.52, 7.96)
Any Mental Illness in the Past Year	18.70 (16.35, 21.29)	18.60 (18.21, 19.01)
Estimates for 18 and older		
**Does not include treatment for drug or alcohol use		
Source: <a href="#">SAMHSA, NSDUH, 2018 &amp; 2019</a>		

# Substance Use Involved Mortality - National

- 2020: Over 93,000 deaths (30% increase from 2019)
- 70% of fatal overdoses linked to opioids, primarily fentanyl

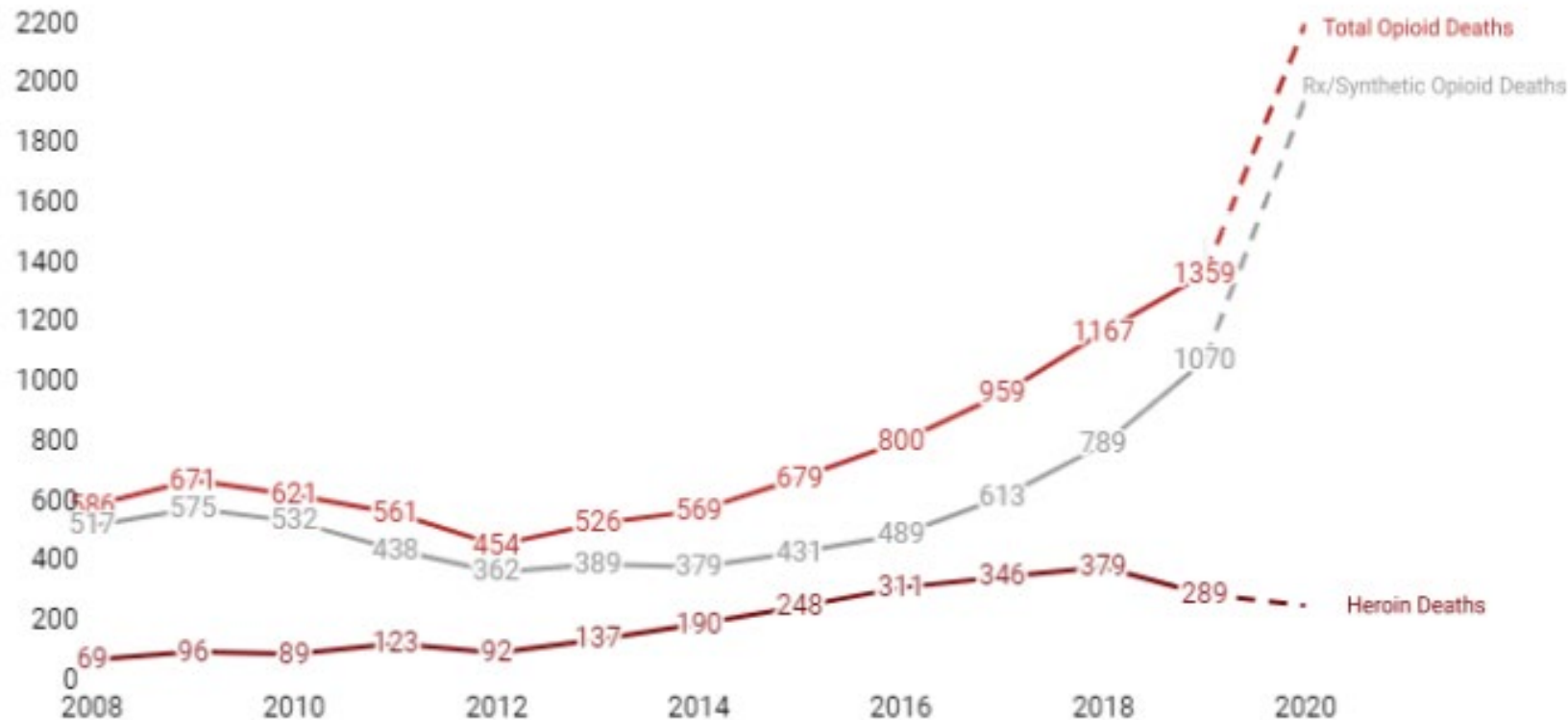
**Figure 1. National Drug-Involved Overdose Deaths\*  
Number Among All Ages, by Gender, 1999-2019**



\*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2019 on CDC WONDER Online Database, released 12/2020.

# Opioid Mortality - Arizona

Opioid deaths among Arizonan residents and non-residents continue to rise



2019: 1,359  
total opioid-  
related deaths

# Part 2 – Workforce Distribution and Shortages

# Access to Care

---

“The timely use of personal health services to achieve the best health outcomes” (IOM, 1993).

## Elements of Access

**Affordability:** facilitates entry into the health care system. Uninsured people are less likely to receive medical care and more likely to have poor health.

**Availability:** Having a usual source of care with the requisite resources (staff, equipment, etc.).

**Accommodation:** Timely ability to provide health care when the need is recognized, in a way that meets client preference and need.

**Acceptable:** Care is culturally appropriate, and client is comfortable.

**Accessible:** Services (workforce) are geographically proximal.

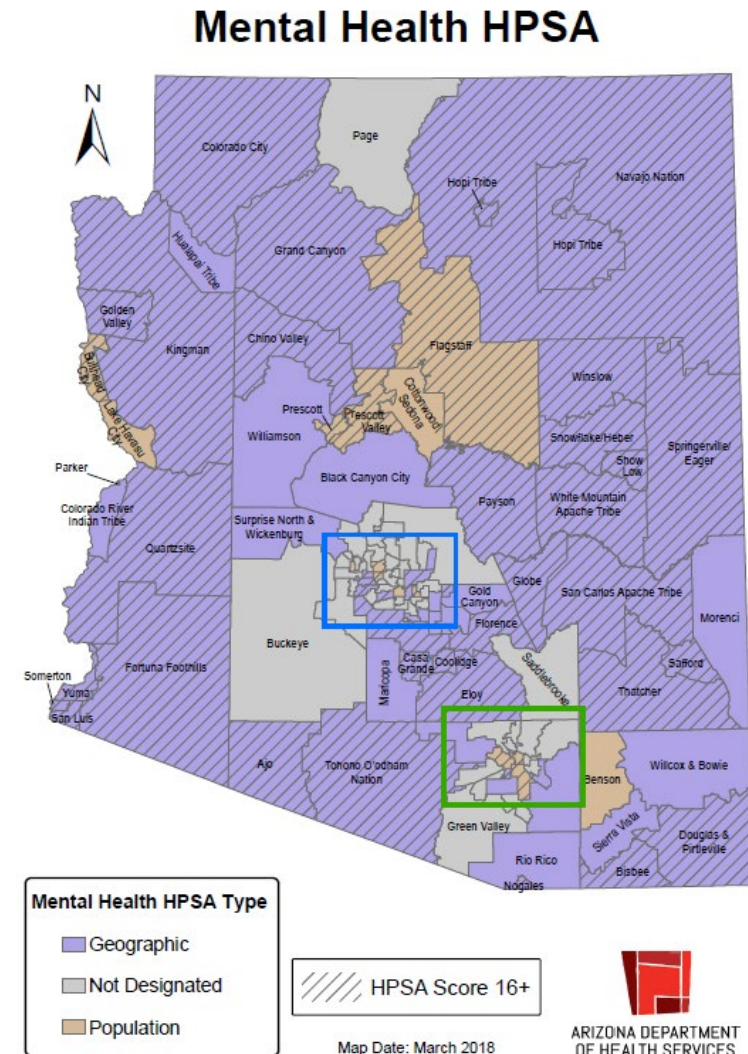
# Geographic Proximity

---

- Further away = less likely to receive care.
- Disproportionately affects low-income, low-literacy, older, more rural, and under-resourced communities.
- Costs include economic, time, social etc.
- Decreases the likelihood of receiving preventive and primary care.
- HHS travel > 30 minutes is excessively distant.

# Behavioral Health Workforce

- According to HRSA, 40% (2.8 million) of Arizona's population lives in a Mental Health - Health Professional Shortage Area ([HPSA](#)).
- Only 11% of need met compared to 26.9% [nationally](#).
- Arizona HPSA based on the psychiatrist workforce.
- 182 practitioners needed to remove the designation 6<sup>th</sup> highest # of MH HPSAs in the US.



# Behavioral Health Workforce Report - Total Providers

	Psychiatrists	Psychologists	Behavioral Analysts	Social Workers	Counselors	Marriage & Family Therapists	Substance Abuse Counselors
Arizona	779	1553	389	4628	4615	558	811
Apache	3	2	0	16	4	5	10
Cochise	4	13	1	43	39	6	7
Coconino	24	79	8	106	117	10	18
Gila	0	5	0	8	14	2	0
Graham	0	7	0	5	11	1	2
Greenlee	0	0	0	1	0	0	0
La Paz	0	0	0	1	4	0	4
Maricopa	516	1050	331	3096	3087	403	443
Mohave	10	5	0	37	53	4	38
Navajo	5	4	0	37	54	9	12
Pima	174	300	44	928	824	76	152
Pinal	13	27	1	146	179	14	63
Santa Cruz	0	3	0	6	6	0	4
Yavapai	26	51	1	155	177	20	44
Yuma	4	7	3	43	46	8	14



# Providers per 100,000

	Psychiatrists	Psychologists	Behavioral Analysts	Social Workers	Counselors	Marriage & Family Therapists	Substance Abuse Counselors
Arizona	11.43	22.80	5.71	67.93	67.74	8.19	11.90
Apache	4.07	2.72	0.00	21.73	5.43	6.79	13.58
Cochise	3.11	10.12	0.78	33.47	30.36	4.67	5.45
Coconino	17.70	58.25	5.90	78.16	86.27	7.37	13.27
Gila	0.00	10.36	0.00	16.58	29.02	4.15	0.00
Graham	0.00	17.80	0.00	12.71	27.97	2.54	5.08
Greenlee	0.00	0.00	0.00	10.67	0.00	0.00	0.00
La Paz	0.00	0.00	0.00	4.88	19.53	0.00	19.53
Maricopa	12.37	25.18	7.94	74.24	74.03	9.66	10.62
Mohave	4.91	2.45	0.00	18.15	26.00	1.96	18.64
Navajo	4.51	3.61	0.00	33.41	48.76	8.13	10.84
Pima	10.69	18.42	2.70	56.99	50.60	4.67	9.33
Pinal	3.26	6.78	0.25	36.65	44.94	3.51	15.82
Santa Cruz	0.00	6.42	0.00	12.83	12.83	0.00	8.55
Yavapai	11.60	22.76	0.45	69.16	78.97	8.92	19.63
Yuma	1.96	3.42	1.47	21.04	22.51	3.91	6.85

# By Rurality

---

RUCA are sub-county and considers commuting flow (may be where people seek health care).

Classify U.S. census tracts by population density, urbanization, and daily commuting. Codes can be grouped into four categories: Urban, Large Rural, Small Rural, Isolated Small Rural

90% of Arizona's population is in urban areas, 10% are in rural areas but only 4.3% of the behavioral health workforce are rurally located

Description	Population	Percent Population	Percent BH Workforce
Urban	6 104 119	90%	95.7%
Large Rural City/Town (Micropolitan)	404 355	6%	2.6%
Small Rural Town	205 506	3%	1.2%
Isolated Small Rural Town	98 627	1%	0.5%
Source: US Census American Community Survey, 2017 5-year Estimate			

# By Rurality

---

Ratio of Providers per 100,000

	Psychiatrists	Psychologists	Behavioral Analysts	Social Workers	Counselors	Marriage & Family Therapists	Substance Abuse Counselors
<b>Arizona</b>	<b>11.4</b>	<b>22.8</b>	<b>5.7</b>	<b>67.9</b>	<b>67.7</b>	<b>8.2</b>	<b>11.9</b>
Urban	12.3	24.5	6.4	73.0	72.3	8.8	11.8
Large Rural	4.5	7.7	0.2	24.5	32.9	2.7	13.6
Small Rural	3.9	9.7	0.0	24.3	26.3	4.4	10.7
Isolated Rural	1.0	7.1	0.0	21.3	16.2	3.0	12.2

# Part 3 – Opioid Use Disorder (OUD) Treatment

# What is Medication for OUD (MOUD)?

---

## Recommended First-line Treatment

- Amer. Academy of Addiction Psychiatry
- American Medical Association
- National Institute on Drug Abuse
- Centers for Disease Control and Prevention
- Substance Abuse and Mental Health Services Administration
- And more...

## Medications and Care Settings

- Methadone
  - OTP: Opioid Treatment Location
- Buprenorphine
  - OBOT: Office-based opioid treatment
- Naltrexone
  - Any clinical setting

# Who Provides MOUD?

---

- Methadone/OTPs:
  - Approved in 1974 for treatment
  - Around 1,700 OTPs in US (58 with public access in AZ)
- Buprenorphine/OBOTS:
  - Approved for treatment in 2000 - Bup (x) waivers issued in 2002
  - 2002-2011 US counties with MOUD increased from 27% to 76%
  - 2016 NPs/PAs can prescribe bup
  - 89% of US providers have ever prescribed bup, 56% are receiving new patients

# Where are MOUD Providers/Locations?

---

## Rural Disparities

- Rural residents drive 6x longer to OTP
- Increases in rural MOUD mostly from NPs

## Research Questions

- How are MOUD sites distributed in Arizona?
- How do drive times differ across MOUD sites by rurality?
- Would increasing waived Providers at FQHCs increase access to MOUD?

# Methods & Sample

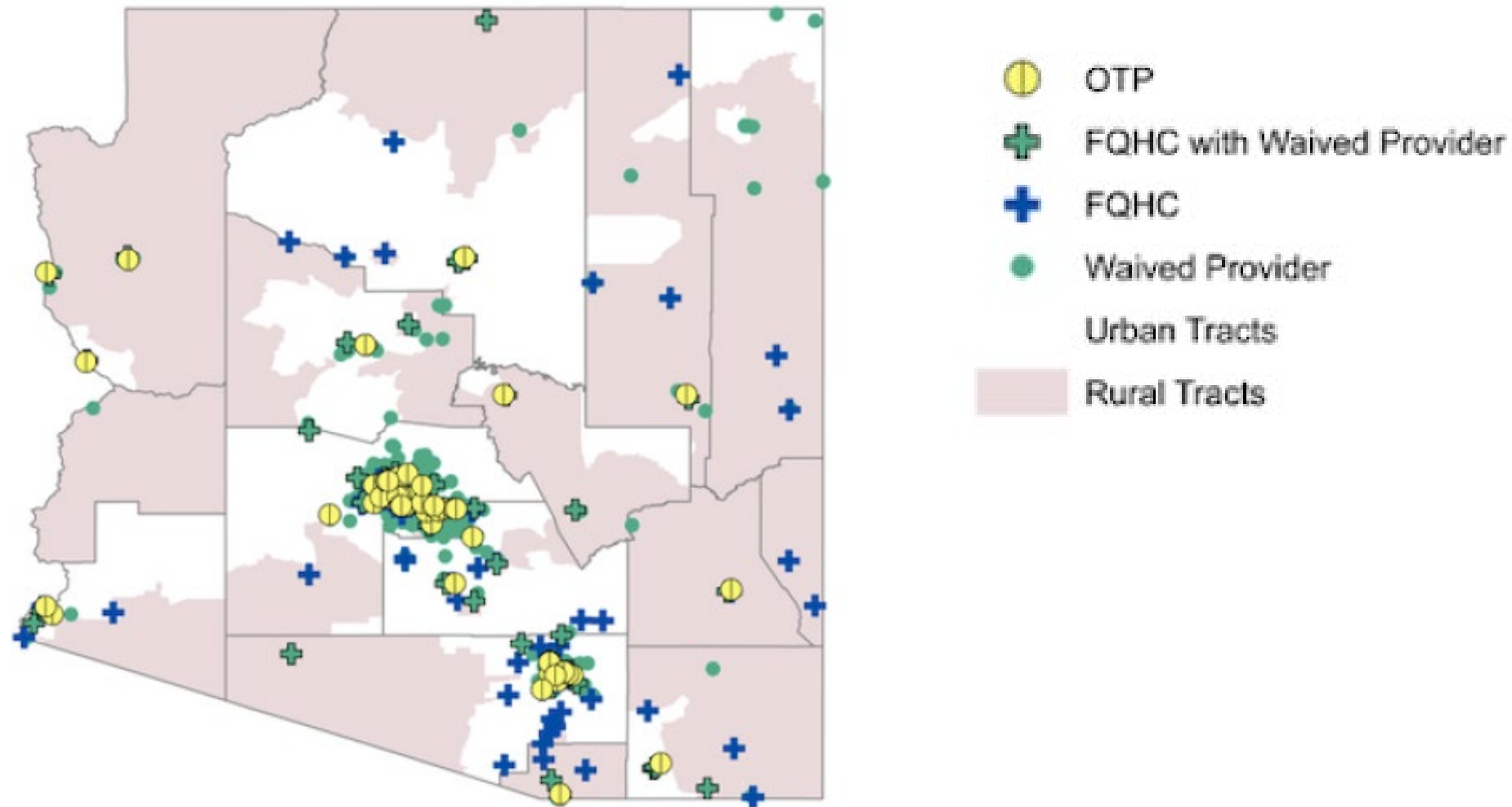
---

- ESRI ArcGIS Driving times computed from block group population centers to their nearest OTP, OBOT, and Potential OBOT location
- Block groups stratified by Rural-Urban Commuting Area (RUCA) codes
- 4,168 population centers
- 58 OTPs
- 1,104 DATA-waived providers / 941 OBOT locations
- 149 FQHCs (71 = OBOT / 78 = Potential OBOT)



# Study Findings

---



# Study Findings

---

Block group Classification	Mean Drive Time, Minutes		
	To OTP	To OBOT	To Potential OBOT
All (n=4168)	16.4	7.1	6.1
Urban (n=3683)	11.3	5.5	4.8
Large Rural (n=239)	31.7	11.2	10.3
Small Rural (n=146)	70.7	20.1	15.3
Isolated (n=100)	87.5	36.9	29.7

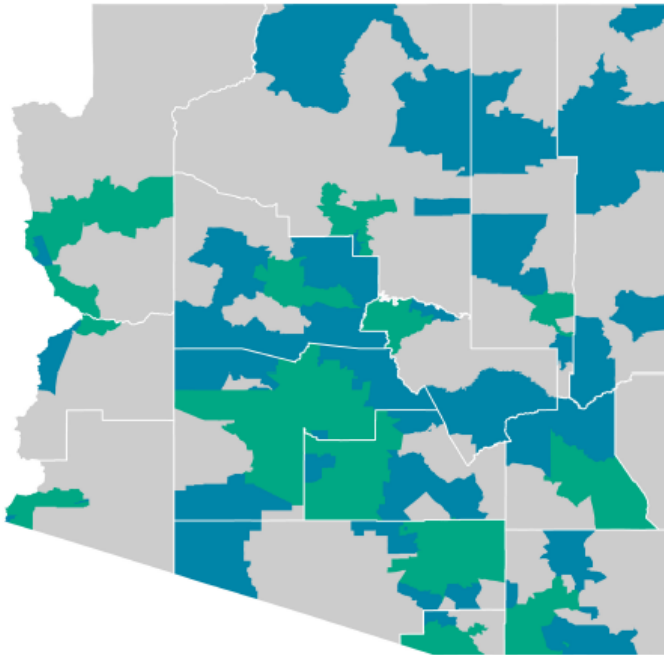
# Key Takeaways

---

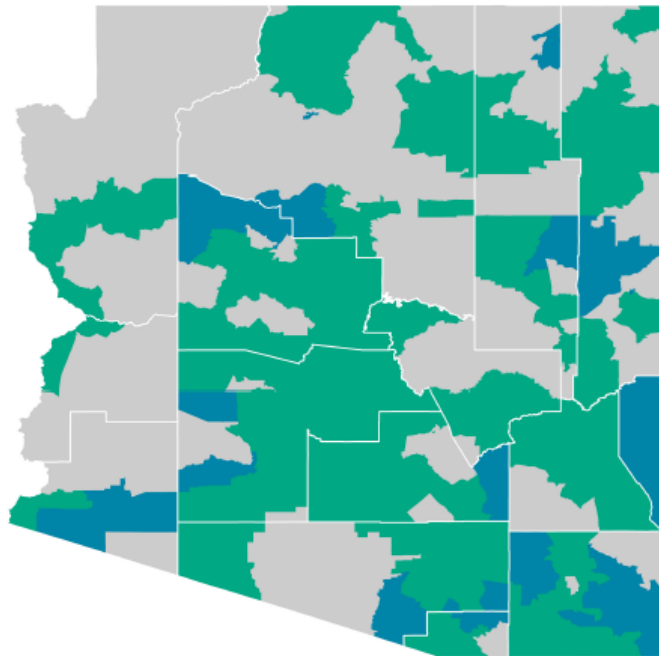
- OBOT locations can reduce drive times by over 50% across all urban and rural areas compared with OTPs.
- Potential OBOT locations significantly improved driving times across RUCAs, with biggest improvements in isolated rural locations.

# Key Takeaways – Rural Gains

---



1. Blocks where residents can access an OTP (green) or OBOT (blue) within 30 minutes



2. Blocks where residents can access an OTP/ OBOT (green) or potential OBOT (blue) within 30 minutes

# Training & Assistance

---

- AzMAT Mentors <https://crh.arizona.edu/mentor>
- MAT ECHO <https://chs.asu.edu/project-echo/join/medication-assisted-treatment>
- OARline Opioid Assistance and Referral line 1-888-688-4222  
<https://www.azdhs.gov/oarline>
- PCSS Providers Clinical Support System <https://pcssnow.org>
- Learn more about the [State Loan Repayment Program](#) for behavioral healthcare [providers](#)

# Contact Information

---

Ben Brady, DrPH, MPH

[brb99@arizona.edu](mailto:brb99@arizona.edu)

Bryna Koch, MPH

[brynak@arizona.edu](mailto:brynak@arizona.edu)

# Questions