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Arizona State Office of Rural Health

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CONTACT:
Jennifer Peters
petersjs@arizona.edu

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

September 16, 2021
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.
Federally Qualified Health Centers Can Expand Rural Access to Buprenorphine for Opioid Use Disorder in Arizona

Benjamin R Brady, MD, Rachel Gibbons-Lawe, PhD, Bryna D Koch, MD, Doug E Campo-Quattri, MD, and Daniel J Denkert, MD

Objective: This study assessed the potential of expanding access to buprenorphine through Federally Qualified Health Centers (FQHCs) in Arizona. The study used mean travel time estimates for Arizona’s rural opioid treatment (OTP) settings, to identify rural FQHCs that could provide buprenorphine treatment. The study also estimated travel times for OTPs whose patients could be treated at a rural FQHC.

Methods: FQHCs were identified using the Arizona Health Network’s database. OTPs were identified through the Arizona Opioid Treatment Database. Data on OTPs, FQHCs, and travel times were collected using a geographic information system (GIS) tool.

Results: Of the 36 FQHCs in Arizona, 14 were identified as potential sites for buprenorphine treatment. The average travel time for OTPs to the nearest FQHC was 90.4 minutes.

Conclusions: Expanding access to buprenorphine through FQHCs could improve rural access to opioid treatment. Future research should focus on identifying barriers to implementing buprenorphine treatment at FQHCs.

Keywords: buprenorphine, opioid use disorder, FQHCs, rural access, travel times

The Arizona Behavioral Health Workforce
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

Upstream  Downstream

- Social Factors
  - Economic Factors
  - Opioid Supply (Prescription Meds)
  - Healthcare Practices

- Community Factors
  - Interpersonal Factors
  - Lack of Healthcare Access/Availability

- Embodied Trauma
  - Health Conditions

- Pre-existing Mental Health Conditions
  - SUD-related Health Conditions

- SUD
  - Overdose Risk Factors
  - Chronic Relapsing Use
  - Opioid Misuse
  - Opioid Overdose
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.

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

<table>
<thead>
<tr>
<th></th>
<th>Percent (CI)</th>
<th>US Percent (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Substance Use Disorder in the Past Year</strong></td>
<td>7.11 (5.93, 8.85)</td>
<td>7.74 (7.52, 7.96)</td>
</tr>
<tr>
<td><strong>Any Mental Illness in the Past Year</strong></td>
<td>18.70 (16.35, 21.29)</td>
<td>18.60 (18.21, 19.01)</td>
</tr>
</tbody>
</table>

Estimates for 18 and older
**Does not include treatment for drug or alcohol use
Source: SAMHSA, NSDUH, 2018 & 2019
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

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 6th highest # of MH HPSAs in the US.
<table>
<thead>
<tr>
<th></th>
<th>Psychiatrists</th>
<th>Psychologists</th>
<th>Behavioral Analysts</th>
<th>Social Workers</th>
<th>Counselors</th>
<th>Marriage &amp; Family Therapists</th>
<th>Substance Abuse Counselors</th>
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<td>1553</td>
<td>389</td>
<td>4628</td>
<td>4615</td>
<td>558</td>
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<td>2</td>
<td>0</td>
<td>16</td>
<td>4</td>
<td>5</td>
<td>10</td>
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<tr>
<td>Cochise</td>
<td>4</td>
<td>13</td>
<td>1</td>
<td>43</td>
<td>39</td>
<td>6</td>
<td>7</td>
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<tr>
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<td>79</td>
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<td>106</td>
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<td>18</td>
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<tr>
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<td>5</td>
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<td>8</td>
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<td>0</td>
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<td>4</td>
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<td>3087</td>
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<td>443</td>
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<td>0</td>
<td>37</td>
<td>53</td>
<td>4</td>
<td>38</td>
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<td>4</td>
<td>0</td>
<td>37</td>
<td>54</td>
<td>9</td>
<td>12</td>
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<td>44</td>
<td>928</td>
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<td>152</td>
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## Providers per 100,000

<table>
<thead>
<tr>
<th>County</th>
<th>Psychiatrists</th>
<th>Psychologists</th>
<th>Behavioral Analysts</th>
<th>Social Workers</th>
<th>Counselors</th>
<th>Marriage &amp; Family Therapists</th>
<th>Substance Abuse Counselors</th>
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<tbody>
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<td>Arizona</td>
<td>11.43</td>
<td>22.80</td>
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<td>5.43</td>
<td>6.79</td>
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<td>10.12</td>
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<td>5.45</td>
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<tr>
<td>Coconino</td>
<td>17.70</td>
<td>58.25</td>
<td>5.90</td>
<td>78.16</td>
<td>86.27</td>
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<td>Gila</td>
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<td>10.36</td>
<td>0.00</td>
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<tr>
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<td>12.71</td>
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<td>74.03</td>
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<tr>
<td>Mohave</td>
<td>4.91</td>
<td>2.45</td>
<td>0.00</td>
<td>18.15</td>
<td>26.00</td>
<td>1.96</td>
<td>18.64</td>
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<tr>
<td>Navajo</td>
<td>4.51</td>
<td>3.61</td>
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<td>33.41</td>
<td>48.76</td>
<td>8.13</td>
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<td>Santa Cruz</td>
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<td>6.42</td>
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<td>8.55</td>
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<td>Yavapai</td>
<td>11.60</td>
<td>22.76</td>
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<td>69.16</td>
<td>78.97</td>
<td>8.92</td>
<td>19.63</td>
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<td>Yuma</td>
<td>1.96</td>
<td>3.42</td>
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<td>21.04</td>
<td>22.51</td>
<td>3.91</td>
<td>6.85</td>
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</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Description</th>
<th>Population</th>
<th>Percent Population</th>
<th>Percent BH Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>6 104 119</td>
<td>90%</td>
<td>95.7%</td>
</tr>
<tr>
<td>Large Rural City/Town (Micropolitan)</td>
<td>404 355</td>
<td>6%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Small Rural Town</td>
<td>205 506</td>
<td>3%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Isolated Small Rural Town</td>
<td>98 627</td>
<td>1%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

Source: US Census American Community Survey, 2017 5-year Estimate
## By Rurality

### Ratio of Providers per 100,000

<table>
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<tr>
<th></th>
<th>Psychiatrists</th>
<th>Psychologists</th>
<th>Behavioral Analysts</th>
<th>Social Workers</th>
<th>Counselors</th>
<th>Marriage &amp; Family Therapists</th>
<th>Substance Abuse Counselors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>11.4</td>
<td>22.8</td>
<td>5.7</td>
<td>67.9</td>
<td>67.7</td>
<td>8.2</td>
<td>11.9</td>
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<tr>
<td>Urban</td>
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<td>24.5</td>
<td>6.4</td>
<td>73.0</td>
<td>72.3</td>
<td>8.8</td>
<td>11.8</td>
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<tr>
<td>Large Rural</td>
<td>4.5</td>
<td>7.7</td>
<td>0.2</td>
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<td>32.9</td>
<td>2.7</td>
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<tr>
<td>Small Rural</td>
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<td>9.7</td>
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<td>26.3</td>
<td>4.4</td>
<td>10.7</td>
</tr>
<tr>
<td>Isolated Rural</td>
<td>1.0</td>
<td>7.1</td>
<td>0.0</td>
<td>21.3</td>
<td>16.2</td>
<td>3.0</td>
<td>12.2</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Block group Classification</th>
<th>Mean Drive Time, Minutes</th>
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<tbody>
<tr>
<td></td>
<td>To OTP</td>
</tr>
<tr>
<td>All (n=4168)</td>
<td>16.4</td>
</tr>
<tr>
<td>Urban (n=3683)</td>
<td>11.3</td>
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<td>Large Rural (n=239)</td>
<td>31.7</td>
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<tr>
<td>Small Rural (n=146)</td>
<td>70.7</td>
</tr>
<tr>
<td>Isolated (n=100)</td>
<td>87.5</td>
</tr>
</tbody>
</table>
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](https://crh.arizona.edu/mentor)
- MAT ECHO [https://chs.asu.edu/project-echo/join/medication-assisted-treatment](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](https://www.azdhs.gov/oarline)
- PCSS Providers Clinical Support System [https://pcssnow.org](https://pcssnow.org)
- Learn more about the State Loan Repayment Program for behavioral healthcare [providers](https://pcssnow.org)
Contact Information

Ben Brady, DrPH, MPH
brb99@arizona.edu

Bryna Koch, MPH
brynak@arizona.edu
Questions