Shifting from Shock to Solutions

2018 Missouri Oral Health Policy Conference
March 1, 2018
Causes of Death in the United States

• Opioids — 2016
  ➢ 64,070 U.S. drug overdose deaths
    – 42,249 opioid-related overdose deaths
    – 1,400 in Missouri
    – 21 percent increase since 2015
    – 300 percent since 1999

• Influenza — 2010 to 2015
  ➢ Annual range of excess deaths from influenza and pneumonia is 4,000 - 20,000

• Motor Vehicle Accidents — 2014
  ➢ 33,736

• Firearms — 2014
  ➢ 33,594

Sources:
https://www.cdc.gov/flu/about/disease/2015-16.htm
https://www.cdc.gov/nchs/fastats/injury.htm
Distribution of Drug-Induced Deaths by Type in the U.S.

Drugs involved in U.S. overdose deaths, 2000 to 2016

Note: Data for 2016 is provisional.

Drug-Induced vs. Motor Vehicle Death Rates in the U.S. and Missouri Over Time

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2015 on CDC WONDER Online Database, released December, 2016. Data are from the Multiple Cause of Death Files, 1999-2015.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2001

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2002

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2003

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

**2004**

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2005

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

**2006**

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2007

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2008

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2009

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2010

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More DRUG-INDUCED Than Motor Vehicle-Related Deaths

2011

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2012

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2013

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

**2014**

*Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.*
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths 2015

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
States with More **DRUG-INDUCED** Than Motor Vehicle-Related Deaths

2016

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016.
Six counties with significantly more opioid overdose than MVA deaths:

- Includes five of our seven most populous counties and Pulaski County which has one of the state’s highest concentration of veterans and active service members.

- St. Charles County: 260 Deaths (2.2x)
- St. Louis County: 798 Deaths (2.2x)
- St. Louis City: 526 Deaths (3.2x)
- Jefferson County: 302 Deaths (1.8x)
- Pulaski County: 45 Deaths (1.4x)
- Greene County: 171 Deaths (1.04x)
Counties with More Opioid Overdose Than Motor Vehicle Accident Deaths 2014-2016

- 29 counties with significantly more drug overdose than MVA deaths between 2014 and 2016
  - Includes nine of our 10 most populous counties and Pulaski County which has one of the state’s highest volume of veterans and active service members.

Source: CDC WONDER. Counties with more drug-induced deaths include: Adair, Bates, Boone, Buchanan, Butler, Cass, Clay, Clinton, Cole, Crawford, Franklin, Greene, Grundy, Jackson, Jefferson, Lincoln, Livingston, Marion, Montgomery, Perry, Platte, Pulaski, Scott, St. Charles, St. Francois, St. Louis, St. Louis City, Wayne and Webster
Policy Changes
Missouri Government Action

- Senate Bill 501, signed into law
  - Grants immunity from arrest, prosecution or other penalties for certain drug-related crimes if seeking medical assistance for a drug or alcohol overdose
  - Permits the director of the Missouri Department of Health and Senior Services or physician designee to issue a statewide standing order for Naloxone
  - Revises standards for medication-assisted treatment of substance abuse
  - Allows the Board of Pharmacy to allocate funds for drug “take-back” programs
- Executive Order 17-18: “Multi-phase PDMP”
  - Retrospective data mining for prescribing variance from pharmacy benefit manager organizations and dispensers and through use of technology and software
- Proposed 2018 Legislation
  - Prescription drug monitoring program
  - Needle exchange programs
  - Expanded take-back programs
  - Patient refusal forms
- Governor’s Budget
  - Fund Executive Order 17-18
  - Expand community treatment services to support medication-assisted treatment
Koon v. Walden and SLU (Mo. App. 2017)

- Male with acute and persistent low back pain
- Treated with increasing doses of opioids — 2008-2012
  - 2008 — average daily dose was 49.67 MMEs (six pills daily)
  - 2009 — average daily does increased to 208 MMEs
  - 2010 — average daily dose doubled to 545.59 MMEs
  - 2011 — average daily dose reached 1,173.37 MMEs
  - 2012 — average daily dose was 1,555.94 when the patient and wife demanded help (40 pills daily)
Jury Award

• Standard of care based on 2016 CDC guidelines for care delivered from 2008-2012
• Judgement for plaintiffs — Brian Koon and Michelle Koon. Jury awarded:
  ➢ Brian Koon — $1.4 million
  ➢ Michelle Koon — $1.2 million
  ➢ Punitive damages — $15 million from Dr. Walden and SLU
• Total award — $17.6 million to plaintiffs
• SLU was vicariously liable for everything Dr. Walden did to cause Koon’s injury.
Plaintiff’s Expert Testimony

• At trial, plaintiff’s expert testified that “everyone who is prescribing opioids must have training and systems in place to ensure that patients are not overprescribed and that the standard of care requires that ‘prescribing healthcare providers have a medication management system in place to make sure patients do not receive excessive or too much dosage of opioids.’”
Standard of Care

1. Conduct a risk assessment with the patient before prescribing.
2. Risks and benefits should be re-assessed each time the opioid dose is increased.
3. Patient should be regularly monitored while on opioids.
4. Track the number of pills and dose the patient is taking.
5. All health care providers must have a medication management system.
6. Check for side effects and behaviors that suggest dependency or addiction.
7. If a doctor suspects the patient is addicted he should cease the opioids and wean the patient.
8. The risk assessment and monitoring results should be documented in the medical records.

Used with Permission. Opioid Prescribing, Healthcare Services Group, presented by Arvids Petersons, JD, MA, CMPE, CPHRM, January 2018
Policy and Advocacy
Practice Changes
CDC Guidelines for Chronic Pain

Dental Practice Opioid Guidelines

Dental Guideline on Prescribing Opioids for Acute Pain
September 2017

Developed by the Dr. Robert Bree Collaborative
Washington State Agency Medical Directors’ Group
with actively practicing dentists and public stakeholders.

Oregon Opioid Prescribing Recommended Opioid Guidelines
November 2017

Pain management is routinely required for some dental procedures. The delivery of respectful care and appropriate management of dental pain can improve the patient experience. Initial management is for acute or episodic situations, requiring less than 48 hours. In other circumstances, a very small amount of opioid countermedications will provide appropriate pain control.

General Guidelines
1. Prescribe opioids cautiously to those with a substance abuse or addiction problem.
2. Ask if patients are getting medications from other physicians who may be prescribing opioids whenever possible.
3. Do not prescribe opioids to patients in substance abuse treatment programs without consulting the program’s medical staff.
4. Do not offer prescriptions with refills. Use caution with medications that are easily diverted, destroyed, or stolen.
5. Prescribing over the phone is discouraged, especially for opioid medications.
6. The use of combination opioids is encouraged when appropriate.
7. If prescribing opioids, prescribe pills only in small doses and do not exceed 15 tablets.
8. Use stepwise guidelines for acute pain management in Dentistry in ADA Practical Guide to Opioid Prescribing, 2015:
   - Mild to moderate pain: ibuprofen
   - Moderate to severe pain: ibuprofen + APAP
   - Severe pain: ibuprofen + hydrocodone/acetaminophen
9. Inform patients how to secure medication against theft or loss of medication.
10. Opioids should not be prescribed more than seven days unless strongly recommended that the patient be assessed (same or different opioid).

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## Practice Change: Adoption of ED Prescribing Guidelines for Opioids

### Adoption of ED Prescribing Guidelines (N=95)

<table>
<thead>
<tr>
<th>Prescribing Guidelines</th>
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<tbody>
<tr>
<td>Encourage Naloxone</td>
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<td>92</td>
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<tr>
<td>ED Policy</td>
<td>55</td>
<td>38</td>
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<tr>
<td>Comm w PCP</td>
<td>67</td>
<td>26</td>
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<td>Counsel Handling</td>
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<td>22</td>
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<tr>
<td>Diagnosis</td>
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<tr>
<td>Tooth Pain</td>
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<tr>
<td>72 Hour Limit</td>
<td>87</td>
<td>6</td>
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<tr>
<td>Refuse &quot;Lost&quot;</td>
<td>91</td>
<td>2</td>
</tr>
<tr>
<td>Shortest Duration</td>
<td>88</td>
<td>4</td>
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<tr>
<td>Avoid Long-Acting</td>
<td>91</td>
<td>2</td>
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</table>

### Percent Adoption

<table>
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<tr>
<th>Avoid Long-Acting</th>
<th>Shortest Duration</th>
<th>Refuse &quot;Lost&quot;</th>
<th>72 Hour Limit</th>
<th>Tooth Pain</th>
<th>Diagnosis</th>
<th>Counsel Handling</th>
<th>Comm w PCP</th>
<th>ED Policy</th>
<th>Encourage Naloxone</th>
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<tr>
<td>Yes</td>
<td>91</td>
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<td>91</td>
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<td>72</td>
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<td>55</td>
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<td>No</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>9</td>
<td>22</td>
<td>26</td>
<td>38</td>
</tr>
</tbody>
</table>

Data: MHA Member Survey, June 2017
Practice Changes

2015 Guidance
- ED opioid prescribing
- 90 percent adoption of most guidelines

2016 Guidance
- Chronic pain
- Acute pain
- Naloxone distribution

2017 Education
- Neonatal abstinence syndrome
- Addiction as a condition

2018 Initiative
- Medication-assisted treatment with coordination of support and treatment services
Use of Naloxone in Response to Opioid Overdose

- Naloxone reverses the effects of an opioid overdose.
- As of August 28, 2017, anyone may access naloxone at a Missouri pharmacy via a statewide standing order.
- The MO-HOPE Project distributes naloxone and provides training on its administration.

Sources: [https://opioids.mo.gov/naloxone](https://opioids.mo.gov/naloxone) [https://mohopeproject.org/](https://mohopeproject.org/)
Medication-Assisted Treatment

• What Is It?
  ➢ Medication-assisted treatment (MAT) incorporates the use of FDA-approved medications and behavioral therapy in the treatment of Opioid Use Disorder (OUD).

• Which Agencies Endorse MAT?
  ➢ Substance Abuse and Mental Health Services Administration
  ➢ American Medical Association
  ➢ National Institute on Drug Abuse

Source: https://www.samhsa.gov/medication-assisted-treatment
“Medication First” Model

- Address withdrawal symptoms
- Reduce cravings
- Enable the patient to focus and engage in counseling and social support groups
- Increase treatment retention
- Supported by the Missouri Department of Mental Health
- Key component of the Opioid STR Grant

Source: https://static1.squarespace.com/static/594939ba197aea24a334ef60/t/59bab107f09ca461180d6429/1505407240927/Opioid+STR+Implementation+Guide_nonDMH.pdf
Obstacles to MAT

- **Access**
  - Need for more waiver-trained prescribers to use buprenorphine for treatment
  - Community services for support and treatment
- **Funding**
- **Stigma**
  - A shift from abstinence-models (12-step)
  - Lack of awareness of evidence-based treatment

# FDA Approved Medications for Treatment of OUD

<table>
<thead>
<tr>
<th>Medication</th>
<th>Action</th>
<th>Dispensing</th>
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<tr>
<td>Methadone</td>
<td>Full Agonist — Full agonists (like heroin, morphine, hydrocodone, and oxycodone) bind to opioid receptors and create a response proportional to the dose.</td>
<td>Opioid Treatment Program (OTP)</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>Partial Agonist — Partial agonists bind to opioid receptors, cause a limited reaction, and prevent the euphoric effect.</td>
<td>Any prescriber with waiver</td>
</tr>
<tr>
<td>Naltrexone</td>
<td>Antagonist — Antagonists bind to opioid receptors and block the receptors from being activated.</td>
<td>Any prescriber</td>
</tr>
</tbody>
</table>

Source: [https://store.samhsa.gov/shin/content/SMA14-4852/SMA14-4852.pdf](https://store.samhsa.gov/shin/content/SMA14-4852/SMA14-4852.pdf)
Methadone

Components

- Long-established agonist treatment of OUD
- Medication used in combination with counseling and social support as part of MAT
- May only be dispensed via OTP certified by SAMHSA
- Addictive, but tightly controlled; only dispensed through an opioid treatment program

Missouri

- Methadone clinics in Missouri
- Breckenridge Hills, Cape Girardeau, Columbia, Hazelwood, Joplin, Kansas City, Poplar Bluff, Springfield, St. Joseph, St. Louis and West Plains

Sources:
https://www.samhsa.gov/medication-assisted-treatment/treatment/methadone

https://dmh.mo.gov/docs/ada/otpsinmissouri.pdf
Buprenorphine

- Partial agonist used in conjunction with counseling and social support as part of MAT
- Prescribed or dispensed in a physician’s office
- Requires the prescriber to be waiver-trained
- Reduced potential for misuse by adding naloxone
- Trade names
  - Sublocade – monthly injectable
  - Subutex – buprenorphine
  - **Suboxone** – buprenorphine and naloxone

Source: [https://www.samhsa.gov/medication-assisted-treatment/treatment/buprenorphine](https://www.samhsa.gov/medication-assisted-treatment/treatment/buprenorphine)
Research to Support MAT

Boston University

- Compared to inpatient detox protocol, hospital-based buprenorphine induction and follow-up with office-based buprenorphine treatment is effective in engaging OUD patients in treatment and reducing illicit opioid use at six months.

- Challenge — maintain engagement in treatment

Yale

- ED induction of buprenorphine was compared to brief intervention and referral.

- ED induction of buprenorphine increased engagement in treatment, reduced self-reported illicit opioid use, and decreased inpatient addiction treatment use.


Why is Waiver Training Required?

• **Harrison Narcotics Tax Act of 1914:** Physicians were allowed to prescribe narcotics to patients in the course of treatment except for the treatment of addiction.

• **Drug Addiction Treatment Act of 2000:** Waiver-trained physicians were allowed to prescribe buprenorphine as part of MAT.

• **Comprehensive Addiction and Recovery Act of 2016:** Buprenorphine waiver training was expanded to include nurse practitioners and physician assistants.
Missouri Buprenorphine Waiver Training

• Training requirements
  ➢ Physicians — eight hours
  ➢ Nurse practitioners and physician assistants — 24 hours

• Missouri Coalition for Community Behavioral Healthcare provides waiver training

Resources:  https://www.mocoaition.org/medication-assisted-treatment (schedule)
            https://katiehorst.wufoo.com/forms/z1fglcxq1u8h0fg/ (reimbursement)
Naltrexone

• Antagonist used in conjunction with counseling and social support as part of MAT
• Monthly injection available, trade name: Vivitrol
• May be prescribed by any health care provider who is licensed to prescribe without special training
• Blocks opioid receptors, thereby, negating misuse/diversion risk
• Challenge: patient must be opioid free for 7-10 days prior to administration of naltrexone

Source: https://www.samhsa.gov/medication-assisted-treatment/treatment/naltrexone
Buprenorphine and Naltrexone Comparison

- NYU study compared effectiveness of buprenorphine-naloxone versus extended-release naltrexone for opioid relapse prevention.
- Findings demonstrated more difficulty initiating naltrexone (Vivitrol) compared to buprenorphine (Suboxone).
- Post initiation, both medications were equally effective.

Source: http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)32812-X/fulltext
Patient overdoses and arrives in the ED.
An ED buprenorphine-waivered physician is contacted.
Buprenorphine induction occurs in the ED.
A Recovery Coach is contacted and meets with the patient in the ED.
The ED physician provides the patient with a bridge prescription of 3-5 days of buprenorphine.
The Recovery Coach assists the patient with a timely referral to outpatient MAT, behavioral therapy, and support groups.
EPICC Project Results

ED Referral Volume by Month $n=643$

Source: Behavioral Health Network (2018) EPICC Project, six-month report, July-December 2017
# EPICC Demographic Profile

## Active Opioid Overdose Clients (12/2016 – 12/2017; n=643)

<table>
<thead>
<tr>
<th>Category</th>
<th>Male</th>
<th>Female</th>
<th>Refused</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>42.3%</td>
<td>57.7%</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>Caucasian 46%</td>
<td>African American 44%</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>18-25 15%</td>
<td>26-35 42%</td>
<td>36-45 26%</td>
</tr>
<tr>
<td></td>
<td>46-64 15%</td>
<td>&gt;65 2%</td>
<td></td>
</tr>
<tr>
<td>Currently Enrolled in any Substance Use Tx?</td>
<td>Yes 2.1%</td>
<td>No 97.9%</td>
<td></td>
</tr>
<tr>
<td>Client Reported as Homeless*</td>
<td>Yes 30%</td>
<td>No 70%</td>
<td></td>
</tr>
<tr>
<td>Client Reported Active Insurance</td>
<td>Yes 33%</td>
<td>No 67%</td>
<td></td>
</tr>
<tr>
<td>Narcan Provided through Recovery Coach</td>
<td>Yes 88%</td>
<td>No 12%</td>
<td></td>
</tr>
<tr>
<td>Overdose Education Provided through Recovery Coach**</td>
<td>Yes 95%</td>
<td>No 5%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Data obtained from Efforts to Outcomes (ETO) database

Source: Behavioral Health Network (2018) EPICC Project, six-month report, July-December 2017
Housing, MAT and Recovery

- Missouri partner: National Alliance for Recovery Residences
  - Missouri Coalition of Recovery Support Providers is an official affiliate of NARR
- NARR-accredited recovery homes in Missouri
  - Eastern region: two homes
  - Southwest region: one home
  - Western region: eight homes

Source: https://missouriopioidstr.org/recovery/
Missouri Recovery Community Centers

- Peer-based community centers
  - St. Louis Empowerment Center, St. Louis
  - Missouri Network for Opiate Reform and Recovery, St. Louis
  - Healing House, Inc., Kansas City
  - Springfield Recovery Community Center, Springfield

Source: https://opioids.mo.gov/node/56
Peer Support in Recovery

• March 2018 — DMH will recognize a single peer certification
• Certified Peer Specialists will be qualified to support individuals in recovery from substance use, mental health or co-occurring disorders.
• The Missouri Credentialing Board will oversee the credentialing process.

Source: www.missouricb.com
Contact Information

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