The Opioid Crisis: A Rural and Critical Access Hospital Effect and Response

January 16, 2020
Critical Access and Rural Hospital Webinar: Leadership Team

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The Opioid Crisis:
A Rural and Critical Access Hospital
Effect and Response

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January 16, 2020
Goals

• Explore the high rates of substance use—including opioid use—prevalent in rural areas.
• Discuss factors which contribute to high rates of substance abuse in rural communities.
• Examine obstacles rural healthcare providers and communities face in dealing with the opioid crisis.
• Determine opportunities for prevention, treatment, and recovery.
Number of Opioid-Related Deaths has Grown 2.8 Times From 2002–2015

Figure 1. National Drug Overdose Deaths Number Among All Ages, by Gender, 1999-2017

The Top 10 Drugs Involved in Overdose Deaths, U.S. 2016

1. Fentanyl
2. Heroin
3. Cocaine
4. Methamphetamine
5. Alprazolam
6. Oxycodone
7. Morphine
8. Methadone
9. Hydrocodone
10. Diazepam

NOTES: Drug overdose deaths are identified using International Classification of Diseases, Tenth Revision (ICD–10) underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Deaths may involve other drugs in addition to the referent drug (i.e., the one listed). Deaths involving more than one drug (e.g., a death involving both heroin and cocaine) are counted in both totals. Caution should be used when comparing numbers across years. The reporting of at least one specific drug or drug class in the literal text, as identified using ICD–10 multiple cause-of-death codes T36–T50.8, improved from 75% of drug overdose deaths in 2011 to 85% of drug overdose deaths in 2016. SOURCE: NCHS, National Vital Statistics System, Mortality files linked with death certificate literal text, 2011–2016. Drugs Most Frequently Involved in Drug Overdose Deaths, United States 2011-2016. CDC. National Vital Statistics Reports. Available at: https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_09-508.pdf. Accessed on: December 31, 2019
Drug Overdose Mortality, by State—1999

1The number of deaths per 100,000 total population.


States are categorized from highest rate to lowest rate. Although adjusted for differences in age-distribution and population size, rankings by state do not take into account other state specific population characteristics that may affect the level of mortality. When the number of deaths is small, rankings by state may be unreliable due to instability in death rates.
Drug Overdose Deaths in the U.S.—2017

Source: https://www.cdc.gov/nchs/products/databriefs/db329.htm. Figure 3. Age-adjusted drug overdose death rates, by state: United States, 2017

NOTES: Deaths are classified using the International Classification of Diseases, 10th Revision. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Access data table for Figure 3(https://www.cdc.gov/nchs/data/databriefs/db329_tables-508.pdf#page=3).

State Ranking of Fatal Overdoses/100,000

1. West Virginia—49.6
2. Ohio—39.2
3. District of Columbia—34.7
4. New Hampshire—34
5. Maryland—32.2
17. Tennessee—19.3
23. Florida—16.3
29. Arizona—13.5
30. Nevada—13.3
31. Oklahoma—10.2
44. California—5.3 (Total OD 4,868/2,199)

### U.S. State Prescribing Rates, 2017

<table>
<thead>
<tr>
<th>State</th>
<th>Prescriptions/100 persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>107.2/100</td>
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<tr>
<td>Arkansas</td>
<td>105.4/100</td>
</tr>
<tr>
<td>Tennessee</td>
<td>94.4/100</td>
</tr>
<tr>
<td>Mississippi</td>
<td>92.9/100</td>
</tr>
<tr>
<td>Louisiana</td>
<td>89.5/100</td>
</tr>
<tr>
<td>Washington D.C.</td>
<td>28.5/100</td>
</tr>
<tr>
<td>Hawaii</td>
<td>37/100</td>
</tr>
<tr>
<td>New York</td>
<td>37.8/100</td>
</tr>
<tr>
<td>California</td>
<td>39.5/100</td>
</tr>
<tr>
<td>Minnesota</td>
<td>41/100</td>
</tr>
</tbody>
</table>

California Opioid Statistics, 2018

- Prescriptions for opioids—19,808,224
- Deaths related to any opioid overdose—2,311/5174
- Deaths related to fentanyl overdose—743
- Emergency department (ED) visits related to any opioid—8,832


Prescriptions for Opioids, CA Counties 2018

- LA County—3,956,420 (359.8/1,000)
- San Diego—1,519,978 (419.6/1,000)
- Orange—1,399,866 (391.4/1,000)
- Riverside—1,394,793 (531/1,000)
- San Bernadine—1,309,011 (606/1,000)
- Trinity—13,235 (742.9/1,000)
- Lake—67,044 (811/1,000)
- Plumas—16,062 (648.3/1,000)

Deaths Related to Any Opioid Overdose, 2018

- LA County—493 (4.5/100,000)
- San Diego—265 (7.3/100,000)
- Orange—249 (7.4/100,000)
- Riverside—142 (5.7/100,000)
- San Bernardino—86 (3.9/100,000)
- Trinity—4 (33.5/100,000)
- Lake—21 (23/100,000)
- Plumas—2 (18.1/100,000)

Any Opioid-Related Overdose Deaths - Total
Population, Prelim. 2018
Age-Adjusted Rate per 100,000 Residents

Source: CDPH. California Opioid Overdose Surveillance Dashboard. Available at: https://discovery.cdph.ca.gov/CDIC/ODdash/.
Opioid Prescriptions by Patient Location (SF), Total Population Crude Rate Per 1,000 Residents

Opioid-Related Overdose by Patient Location (SF), Total Population Crude Rate Per 100,000 Residents

ADE Inpatient Opioid Incidence—CAH

### Baseline Time Period

<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>Baseline Start Date</th>
<th>Baseline End Date</th>
<th>Baseline Value</th>
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<tr>
<td>HSAG HIIN</td>
<td>10/1/2015</td>
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<td>CAH</td>
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<tr>
<td>HC</td>
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### Most Recent Time Period

<table>
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<th>Hospital Name</th>
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<th>Most Recent Value</th>
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<tr>
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### Improvement Goal

- **HSAG HIIN**
  - Measure Goal: 2.91
  - Goal Rate: 20% Reduction
  - Progress: 1.99%
  - RIR: 1.99%

- **CAH**
  - Measure Goal: 11.25
  - Goal Rate: 20% Reduction
  - Progress: 32.10%
  - RIR: 32.10%

- **HC**
  - Measure Goal: 3.70
  - Goal Rate: 20% Reduction
  - Progress: 18.34%
  - RIR: 18.34%
ADE Inpatient Opioid Incidence—Rural

<table>
<thead>
<tr>
<th>Hospital Name</th>
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<th>Baseline End Date</th>
<th>Baseline Value</th>
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<tr>
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<td>Rural</td>
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<tr>
<td>Non CA Hospitals</td>
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<table>
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<th>Most Recent End Date</th>
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<tbody>
<tr>
<td>HSAG HIIN</td>
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<td>6/30/2019</td>
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<td>Rural</td>
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<tr>
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<table>
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<th>Improvement Goal</th>
<th>Measure Goal</th>
<th>Goal Rate</th>
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<tr>
<td>HSAG HIIN</td>
<td>20% Reduction</td>
<td>2.91</td>
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<td>1.99%</td>
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<tr>
<td>Rural</td>
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<td>-55.42%</td>
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<tr>
<td>Non CA Hospitals</td>
<td>20% Reduction</td>
<td>3.41</td>
<td>-38.95%</td>
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The Impact of Addiction On Rural America
The Rust Belt
Risk Factors For Substance Abuse in Rural America

• Low educational attainment
• Poverty
• Unemployment
• High-risk behaviors
• Isolation
Vocational Risk Factors
• 46 percent of rural adults reported that it would be easy for them to obtain large quantities of opioids without a prescription.

• 77 percent of farmers reported that it would be easy for them to obtain large quantities of opioids without a prescription.

— 1 of 3 said they could access treatment

Why Farmers?
Friends and Families Share

Time to Share
What Is Killing People?

Nonmedical use of prescription opioids peaked in 2012

Minority of those prescribed opioids develop opioid use disorder (OUD)

Diversion of many drugs is common and difficult to prevent

False narrative?

Sources:

Of 136K patients in ERs treated for opioid overdoses, 13% were chronic pain patients (JAMA*, 2014)

Heroin and fentanyl use increases are strongly correlated with increased opioid deaths¹

95% of overdose deaths are related to polypharmacy²

*JAMA = Journal of the American Medical Association

Sources:
2017 California Opioid Mortality

100 Miles To The Doctor?
Pain Is the Gordian Knot of Medical Practice
1. Focus on decreasing exposure to opioids as a way to prevent new addiction
2. Support the treatment of those with OUD
3. Foster the development of novel pain treatment therapies
4. Improve enforcement and assess benefit-risk of new opioid approvals

Pain After Total Hip Arthroplasty (THA)
How Many Pills Do We Give?—THA

- A 2019 retrospective cohort study examined opioid prescribing trends following THA
- 73—(547 MME) pills opioid naive
- 126—(945 MME) pills non-opioid naive/chronic
- Between 10 percent of naive and 47 percent non opioid naive users continued opioid use at 1 year post-op

Orthopaedic Proceedings Vol. 100, Oct. 2018

304 opioid naive patients undergoing THA or TKA were randomized to receive a prescription for either 30 tablets (161 patients) or 90 tablets (143 patients), 5mg oxycodone.

All patients received acetaminophen, meloxicam, tramadol, and gabapentin perioperatively – (Multi-Modal Analgesia)

Daily opioid consumption (MME), number of unused OxyIR, and pain scores were calculated for 30 days post-operatively with a patient-completed medication diary.

The number of OxyIR refills recorded for 90 days post-operatively.

Study Results

• In the first 30 days, the median number of unused Oxy 5mg tablets was 15 in the 30 pills patient group.

• The median number of unused Oxy 5mg tablets was 73 in the 90 pills patient group.

• There was no difference between groups in mean morphine equivalent dose (MED) consumed and pain scores within the first 30 days.

Study Conclusion

• Prescribing a smaller number of opioids at the time of surgery is associated with equivalent pain scores and opioid consumption, yet a significant reduction in unused narcotics.

Unfilled Prescriptions

• A 2019 retrospective cohort study examined opioid prescribing trends following THA
• 38.5% of opioid naive patients did not fill an opioid Rx after THA
• 28% of opioid naive patients did not fill an opioid Rx after TKA
• 10% of non-opioid naive patients did not fill after THA
• 4% of non-opioid naive patients did not fill after TKA

Medicating Existential Pain
Exposure and Opioids
Fostering Novel Pain Treatment Approaches

• Perioperative opioid use in radical cystectomy
  – Oral acetaminophen (1,000 mg)
  – Gabapentin (100 mg)
  –Celecoxib (200 mg)
  –Tramadol (100 mg)

• Post surgery
  – Liposomal bupivacaine
  – Abdominal binders ice packs
  – Oral acetaminophen (1,000 mg)
  – Ketorolac every 6 hours (15 mg/mL)
  – Gabapentin orally three times per day (100 mg)
  – Tramadol as needed for breakthrough pain (50–100 mg).

Non-Opioid Approaches to Pain

• Introduction to the new pathway
  – Staff member and patient education
  – Postings about the new protocol
  – Multidisciplinary meetings

• Opioid exposure cut by 77 percent with no increase in pain scores

• “Well, my patients are different, I see sicker people”
Factors Influencing Long-Term Opioid Use Among Opioid Naïve Patients

- 1,353,902 persons aged 14 years and older with no history of cancer or substance abuse
- New opioid use episodes categorized into 11 mutually exclusive pain etiologies
- Increasing days' supply of the first prescription was consistently associated with a lower likelihood of opioid discontinuation
- Characteristics of the first opioid prescription, particularly duration of the prescription, are significant predictors of continued opioid use irrespective of the indication for an opioid prescription

Identification and Care of Opioid Use Disorder

[Image of a tablet showing a word cloud with keywords such as overdose, naloxone, poisoning, heroin, and abuse.]
Can We Accurately Identify The Problem?

How to Identify Drug Misuse and Substance Use Disorder (SUD)
Different Patient/Different Needs

- **Opioid Naive**
  - Not been exposed to opioids in the past 30 days

- **Opioid Exposed**
  - History of chronic pain who have been prescribed opioids daily for long periods of time (months to years), opioid tolerant

- **OUD**
  - Individuals with a history of escalating patterns of opioid use despite negative consequences in health, family, work, and other areas of their life

What Puts Us At Risk For Substance Abuse?

1. Family history/family life\(^1\)
2. Peers
3. Age of onset\(^2\)
4. Method of delivery
5. Drug pharmacology
6. Education
7. Socioeconomics
8. Chronic pain

Sources:
Medication-Assisted Treatment (MAT)

- Methadone
- Buprenorphine
- Naltrexone
We Are a Barrier
Effective Approaches For Rural America

• Opioid Treatment Programs (OTPs)
• Office Based Opiate Treatment Programs (OBOTs)
• Abstinence-based models
Outcomes?
Models That Work

• “Hub and Spoke”
• Project ECHO®

National Rural Health Association
Policy Recommendations

1. Make MAT (buprenorphine or methadone) an option in all rural communities
   - Eliminate Medicaid and Medicare caps/prior authorizations
   - Use of nurse practitioners and physician assistants
   - Do not require counseling or mental health treatment as a condition of obtaining treatment
   - Create and reimburse transportation costs
   - Make MAT available to all incarcerated individuals/smooth transition for recently incarcerate
   - Integrate substance abuse treatment services into all rural community health centers/primary care offices

2. Improve the availability of MAT/chemical dependency professionals in rural areas

- Promote pain management, behavioral health, addiction education in medical schools
- Support the pipeline of rural students through Federal grants
- Direct funding for Hub and Spoke programs
- Telemedicine consultation services for addiction and pain
- Fund programs that provide organizational support, case management, and consultation services; and for providers who prescribe MAT (MAT Deserts)

3. Others

– Integration of mental health services
– Peer support programs/Telehealth integration
– Improve availability of inpatient facilities that treat substance use disorders
– Naloxone availability and training part of every treatment program
– Good Samaritan laws in every state in use of Naloxone in the setting of opioid overdose.
– Best practices research
  • Outcomes of specific treatment models in rural settings
  • Outcomes of educational models

Addiction Is Like a River...
Discussion/Questions
HSAG HIIN Opioid Resources

- Managing your pain in the hospital
- Patient engagement/agreement
- Opioid tapering agreement
- Pain what to expect at home
- Opioid checklist prescribing guidelines for acute pain
- Opioid checklist prescribing guidelines for chronic pain
- Opioid monitoring process
- Safe storage and disposal
- What to ask your doctor

https://www.hsag.com/en/medicare-providers/opioid-resources/
Poll Question One

• Would you participate in a follow-up peer group to discuss challenges you are experiencing around opioids and explore innovative ideas for success:
  A. Yes
  B. No
Poll Question Two

• For my hospital, the topic **most** challenging is:
  A. Addiction/SUD
  B. Over prescribing
  C. Homelessness
  D. Lack of community resources
Take Home Points

• The Opioid Crisis has had a disproportionate effect on rural Americans and healthcare workers.
• This is being driven by both prescription and illicit synthetic opioids.
• Critical access hospitals have higher opioid-related adverse drug events (ORADE).
• Rural and farm life are correlated with higher rates of pain and medication sharing which make opioid use potentially of higher risk to individuals.
• Use of non-opioid medication and prescribing opioids in the smallest amount possible are critical to prevention.
• The most effective interventions for OUD in rural settings require they be centered around local providers but with access and use of remote support through technical innovation.
Please complete the evaluation in order to obtain **(1) Continuing Education Unit (CEU)** at:

**http://bit.ly/2T1PcEC**

If you registered online for this event, you will also receive the link via email.

A recording of today’s session will be available at:

**www.hsag.com/en/hiin/events**

(Click on today’s event date to access the recording link)
Thank you!

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