What does it mean when overdose mortality rates decline? A call for cautious optimism.
Trends in Drug Overdose Mortality
Opioid Misuse Community Assessment Tool

Drug Overdose Deaths in the United States

Socio Demographic
- Race / Ethnicity
- Age
- Educational Attainment
- Disability Status

Economic
- Median Household Income
- Poverty Rate
- Unemployment Rate
- Accident-prone Employment

Drug Overdose Rate
Deaths per 100k pop, ages 15-64, by county

Overdose Type
- All Drugs
- Opioids

Timeframe
- 2007 - 11
- 2012 - 16

Map Overlays

State / County
Urban / Rural
Zoom

Center for Rural Health Research
East Tennessee State University

The Walsh Center for Rural Health Analysis
NORC at the University of Chicago
Trends in Central Appalachia

2008 – 2012

2013 – 2017
Trends in Drug Overdose Mortality

Drug Overdose Mortality (ages 15 to 64), Among Appalachian Counties

- Kentucky
- Ohio
- West Virginia
- Tennessee


- 33.2
- 33.5
- 54.0
- 62.3
- 76.0
- 50.7
- 47.4
- 62.0

The Walsh Center for Rural Health Analysis

CENTER for RURAL HEALTH RESEARCH
EAST TENNESSEE STATE UNIVERSITY
Exploring Declining Overdose Mortality Rates in Eastern Kentucky

[Map images of Kentucky, Pennsylvania, North Carolina, Tennessee, Virginia, and West Virginia showing changes in drug overdose mortality rates.]

The Walsh Center for Rural Health Analysis

[Logos: Center for Rural Health Research, East Tennessee State University, NORC at The University of Chicago]
Exploring Declining Overdose Mortality Rates in Eastern Kentucky

- On behalf of CDC and NACCHO, in partnership with University of Kentucky Center of Excellence in Rural Health (UK CERH), NORC is conducting a study to investigate trends of declining drug overdose mortality in Eastern Kentucky.

- Between 2008-2012 and 2013-2017, of the 10 counties with the greatest decline in drug overdose mortality, 8 of them are in Eastern Kentucky. Of the top 20 counties, 14 are in Kentucky.

- Through an intensive qualitative study, NORC and UK CERH will identify potential policies and strategies that may be contributing to the declines, including approaches that could be implemented in other communities.
Exploring Declining Overdose Mortality Rates in Eastern Kentucky

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Clay County</td>
<td>29.5 deaths per 100,000</td>
<td>-52.2 deaths per 100,000</td>
</tr>
<tr>
<td>Johnson County</td>
<td>38.8 deaths per 100,000</td>
<td>-49.7 deaths per 100,000</td>
</tr>
<tr>
<td>Floyd County</td>
<td>73.8 deaths per 100,000</td>
<td>-34 deaths per 100,000</td>
</tr>
<tr>
<td>Magoffin County</td>
<td>35.6 deaths per 100,000*</td>
<td>-32.8 deaths per 100,000</td>
</tr>
<tr>
<td>Breathitt County</td>
<td>46.4 deaths per 100,000</td>
<td>-32 deaths per 100,000</td>
</tr>
<tr>
<td>Bath County</td>
<td>44.2 deaths per 100,000*</td>
<td>-30.7 deaths per 100,000</td>
</tr>
<tr>
<td>Powell County</td>
<td>70.1 deaths per 100,000</td>
<td>-30.4 deaths per 100,000</td>
</tr>
<tr>
<td>Letcher County</td>
<td>46.3 deaths per 100,000</td>
<td>-28.8 deaths per 100,000</td>
</tr>
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</table>
Exploring Declining Overdose Mortality Rates in Eastern Kentucky

- NORC conducted a hypothesis generating initial visit to Eastern Kentucky in November, 2019
- NORC also interviewed approximately 40 stakeholders between March and June, 2020.
- Stakeholder groups included:
  - State and local health departments
  - Kentucky Office of Drug Control Policy
  - Treatment providers
  - Criminal justice (county judges, police)
  - Harm reduction providers
  - Pharmacists
  - Community health workers
  - Prevention/Education
Key Themes

• Emerging themes for why drug overdose mortality is declining in Eastern Kentucky
  – Increased access to treatment
    o Medicaid expansion and Kentucky’s enhanced substance use treatment benefits
  – Recovery community and initiatives (i.e., recovery housing, second chance employment)
  – Changing approach of the criminal justice system
  – Harm reduction
  – Reduced stigma
  – Partnerships, community coalitions, and longstanding commitment to addressing substance use
  – Primary prevention and education
  – Shifts in drug use patterns (i.e., increasing use of methamphetamine)
Increased Access to Treatment

- Access to treatment in Eastern Kentucky has dramatically increased over the past 5 years
  - “Access to treatment is a large part into why you see a decline in overdoes and more individuals in long term recovery today.”
  - “Get people treatment on demand. Started to turn the corner on addiction.”
- Medicaid expansion has played a significant role in the expansion of treatment availability
  - Prior to expansion, Kentucky did not have a substance use treatment benefit as a part of Medicaid. In 2014, with Medicaid expansion, a robust treatment benefit was added, which covers the full continuum from peer support, group, residential, hospital-based, withdrawal management, and more.
  - “By 2015 we had numerous providers billing Medicaid- another game changer in my opinion.”
- Access to medically assisted treatment (MAT) throughout Eastern Kentucky
Recovery Community & Initiatives

- Strong recovery infrastructure
- Recovery housing
  - Recovery Kentucky: There are 14 Recovery Kentucky centers that provide housing and recovery services for up to 2,000 Kentuckians simultaneously across the state.
- Many treatment providers focus on vocational programs
- Second chance employment
- Growing community of individuals in recovery
  - “Even when I moved here in 2008, what the fellowship of AA and NA looked like, the support network was very minimal. Now there is a growing community of recovering individuals.”
Law enforcement

Angel Initiative was implemented by Kentucky State Police in 2016. Under this initiative, anyone battling addiction can come to any KSP post and get help finding treatment, no questions asked.

“I think that during my tenure we went from a punishment model to a treatment model in referring to the criminal justice model. We look at everything as treatment instead of punishment.”

Judicial system

Drug courts

Community liaisons from treatment centers work in courts and judges are sending individuals to treatment instead of jail.
Harm Reduction

- In 2015, Kentucky legislature passed legislation that allowed county health departments to establish harm reduction and syringe exchange programs.
  - “Now we have 70, more than any state in the country. Some of the first ones we had were in eastern Kentucky. Pikeville was one of the first. Syringe exchange, also helping people get into treatment, and better health outcomes, providing free Narcan.”
- Increased access to Narcan
- Syringe exchange services
- Referrals to treatment
Reductions in Stigma

“A lot of the stigma now has been alleviated and folks in this area are more supportive of recovery endeavors, our community here was very close minded in considering addiction as disease not too long ago.”

“It took a few years before community started realizing how detrimental it was. A lot of embarrassment, people want to keep quiet. Overdose rates weren’t high and were reported improperly. Now people are more open to talk about it. People in recovery willing to talk about it.”
Partnerships, Collaboration, and Community Coalitions

“We had a decade long head start in terms of delivering treatment services”

“Appalachian communities are independent. They take care of themselves. This was an issue that has truly brought all of us together.”

“A whole lot more grassroots efforts in eastern KY than in other areas. People starting these are from here. They know everybody and take more vested interest.”
Prevention and Education

“We also have Operation UNITE. They have camps for children to learn and keep them occupied in the summer while parents might not have all the time and resources to focus on where their kid is. It gives them a safe place to learn and do activities.”

“I think early prevention has been a key in a lot of our areas.”
Shifts in Drug Use and Availability

- Decline in availability in prescription pills, through Kentucky legislation
  - First state to require usage of PDMP before any controlled substance could be prescribed.
  - 2012 legislation led to closing of 36 pain clinics

- Shift from opioid use to methamphetamine use
  - One treatment provider reported that currently, 40% of their clients report meth as their drug of choice, compared to 6% five years ago.
Respondents discussed emerging trends related to the impact of COVID-19

- Difficulties in administering treatment and supporting those in recovery during COVID-19 pandemic
- Economic hardships may lead to relapses or increases in overdoses
- Some have observed spikes in overdoses
- One interviewee noted that non-violent offenders were released from jails due to COVID-19, and some of these individuals may have been at risk of overdose once released
Provisional Overdose Mortality Data

Figure 1b. Percent Change in Reported 12 Month-ending Count of Drug Overdose Deaths, by Jurisdiction: January 2019 to January 2020

NOTES: Reported provisional counts for 12-month ending periods are the number of deaths received and processed for the 12-month period ending in the month indicated. Drug overdose deaths are often initially reported with no cause of death (pending investigation), because they require lengthy investigation, including toxicology testing. Reported provisional counts may not include all deaths that occurred during a given time period. Therefore, they should not be considered comparable with final data and are subject to change. Predicted provisional counts represent estimates of the number of deaths adjusted for incomplete reporting (see Technical notes).

Deaths are classified by the reporting jurisdiction in which the death occurred. Percent change refers to the relative difference between the reported or predicted provisional numbers of deaths due to drug overdose occurring in the 12-month period ending in the month indicated compared with the 12-month period ending in the same month of the previous year. Drug overdose deaths are identified using ICD–10 underlying cause-of-death codes: X40–X44, X60–X64, X85, and Y10–Y14.
ARC’S MISSION

We create opportunities for people to discover hope and live their God-given destiny.
Residential Centers
Transitional Learning Centers
Outpatient Centers

30+ Programs in 18 Counties
TREATMENT ON DEMAND

24/7 Intake Department

• Call (606) 638-0938
• Text (606) 547-4633
• Chat at www.arcccenters.com
• Email intake@arcccenters.com
SUD TX: A NEW SECTOR OF HEALTHCARE IN KY

April 2003
Operation UNITE started by Congressman Hal Rogers

December 2010
Karen's Place opens and accepts first client

2014
Kentucky expands Medicaid through Affordable Care Act to pay for substance abuse treatment

Present
ARC has expanded to 30+ facilities in 18 counties
LEADING THE WAY IN KENTUCKY

• Admitted first Medicaid residential patient January 2015

• Admitted over 8,000 patients for residential treatment

• We accept most private insurance plans

WE ACCEPT ALL KENTUCKY MEDICAID PLANS
HOLISTIC APPROACH TO CARE

Clinical (mind)

Spiritual (soul)

Medical (body)

Vocational (purpose)
Women's center in Lawrence County, KY

Karen's Place
Addiction Recovery Care
Men’s center in Fleming County, KY
KAREN’S PLACE MATERNITY CENTER
THROUGH DELIVERY PLUS 3 MONTHS
Average NICU stay for a drug-dependent baby (without ARC treatment)

Average hospital stay for babies born at ARC’s maternity center
FROM CRISIS TO CAREER
A MULTIPHASE APPROACH

>80% success rate for people who complete all four phases
COST BENEFIT BY PUBLIC INVESTMENT

<table>
<thead>
<tr>
<th>Treatment in Prison</th>
<th>Drug Court</th>
<th>MAT</th>
<th>Job Training</th>
<th>Residential Treatment</th>
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<tbody>
<tr>
<td>$1.91</td>
<td>$2.83</td>
<td>$4.00</td>
<td>$5.28</td>
<td>$7.00</td>
</tr>
</tbody>
</table>

TREATMENT & TRAINING

$7.00 ROI for $1: Residential
$4.00 ROI for $1: Outpatient

$5.28 ROI for $1: Job Training

What if we combined them?
ARC’S TREATMENT CENTER
STAFF TRAINING PROGRAM

- Treatment Center Staff Training
- Staff Internship Program at ARC
- Guaranteed job (1 year clean).

- Career Paths:
  - Residential Center Staff
  - Residential Center Management
  - Office Assistants
  - Drug Screen Collectors
  - Peer Support Specialists
  - Corporate Office
VANESSA KEETON  
KAREN’S PLACE GRADUATE

• In recovery since December 2010
• **From:** IV Needle User
• **Now:**
  ▶ Homeowner
  ▶ College Graduate
  ▶ Center Director
  ▶ Business Owner
Matt Brown
Belle Grove Springs Graduate

- In recovery since May 2014

- **From:** HS Valedictorian/Licensed Physical Therapist with Pain Pill Addiction

- **Now:**
  - Chief of Staff to CEO
  - Louisa City Council
  - Community Activist
PEER SUPPORT SPECIALIST ACADEMY

- Sullivan University
- EKCEP
- College Credit
- State Certifications
- “Super PSS”
≥ 80% of PSS Academy graduates are in recovery and employed.
OUTREACH SERVICES

Meeting people in their time of need

- Casey’s Law
- Jail Ministry
- Detox
- Hospitals
- Court Systems
- Homeless Shelters
- Health Departments
- Domestic Violence Shelters
- Needle Exchanges
GENERAL MAINTENANCE INTERNSHIP
CHANGING LIVES
WHILE CHANGING TIRES

SECOND CHANCE AUTO
SECOND CHANCE
LAWN & PROPERTY SERVICES

- Free estimates
- Creative landscape design
- Private and commercial customers
625 JOBS CREATED

• 50% are in recovery

• 33% are ARC graduates
Addiction Recovery Care is being selected to be studied as a national best practice for taking those with substance use disorder from addiction to employment. This study is through Health and Human Services, MDRC and Abt Associates.
IT TAKES A VILLAGE

Various logos and names of organizations, including:
- Arc
- Eastern Kentucky Concentrated Employment Program, Inc.
- Operation Unite
- Commonwealth of Kentucky
- Kentucky Chamber
- University of Kentucky Center of Excellence in Rural Health
- SOAR: Creating a Future in Appalachia. Together.
- MCK
- Sullivan University
- Kentucky Skills
- ARH Appalachian Regional Healthcare
- King's Daughters Medical Center
- Recon KY
Resources

Michael Meit  
_Director of Research and Programs_  
_ETSU Center for Rural Health Research_  
meitmb@etsu.edu

Opioid Misuse Community Assessment Tool:  
http://opioidmisusetool.norc.org

Appalachian Overdose Mapping Tool:  
http://overdosemappingtool.norc.org

NORC Walsh Center for Rural Health Analysis website:  
http://walshcenter.norc.org

ETSU Center for Rural Health Research website:  
https://www.etsu.edu/cph/rural-health-research