Taking Care of Our Own: Building and Strengthening Recovery Ecosystems

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FOR RURAL HEALTH ANALYSIS

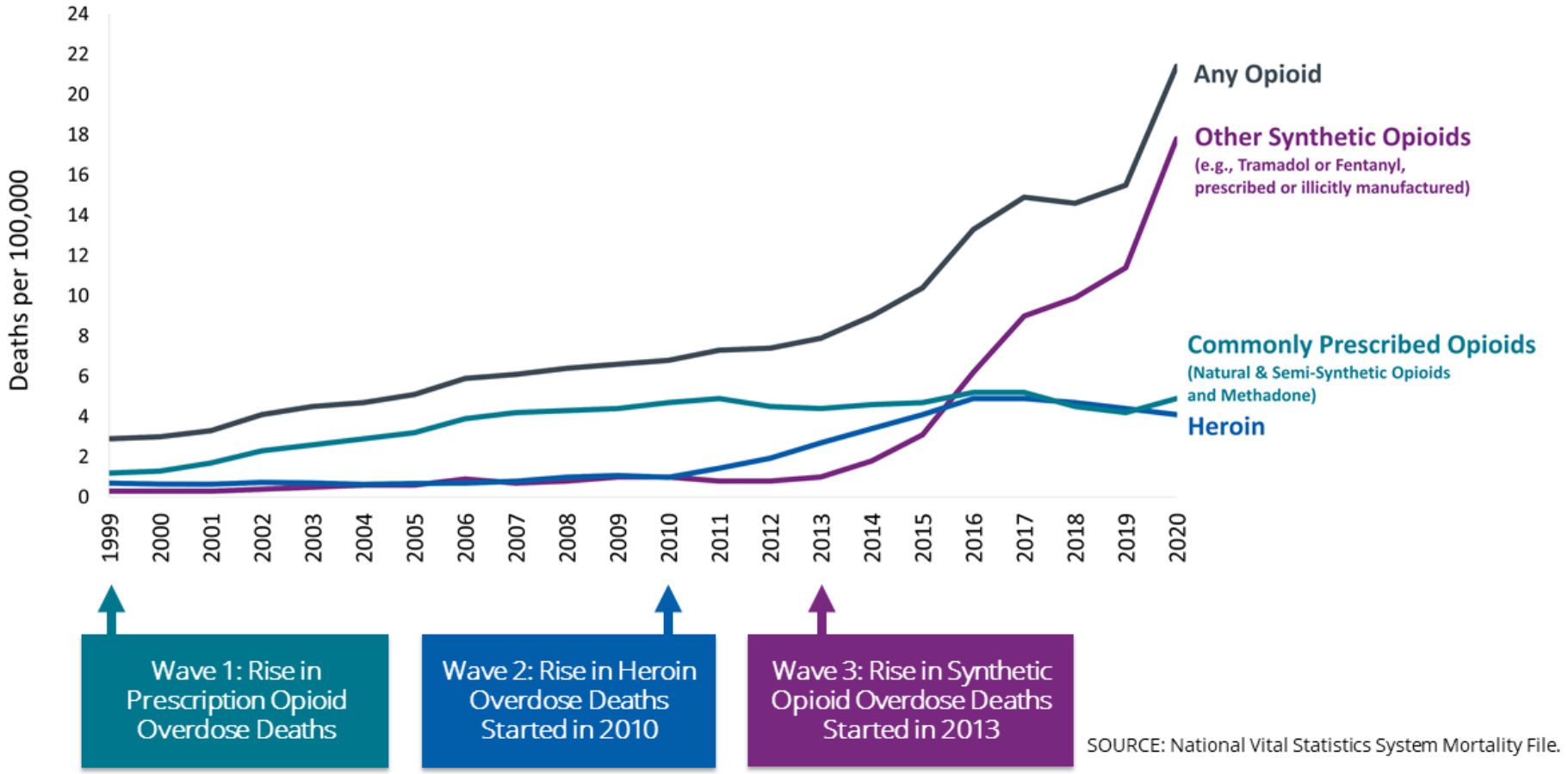
U.S. Substance Use – Background

- Approximately 80,000-112,000 annual overdose deaths since 2020[1]
  - August ’19-’20: 87,293 deaths
  - August ’22-’23: 111,451 deaths
- 10x more overdose deaths in 2023 than in 1999[2]
- Synthetic opioids (fentanyl) drive the majority of deaths[2]
- Polysubstance use and unintentional fentanyl exposure are on the rise[2]

Substance Use & Mental Health

- One-third of adults with psychological disorders have co-occurring SUD[3]
  - One-fifth of adults with serious mental illness also have SUD[3]
- 64% of adults with OUD had a mental illness in a nationally representative study[4]
- About 792,000 adolescents had SUD and major depression[5]

Three Waves of Opioid Overdose Deaths



SOURCE: National Vital Statistics System Mortality File.

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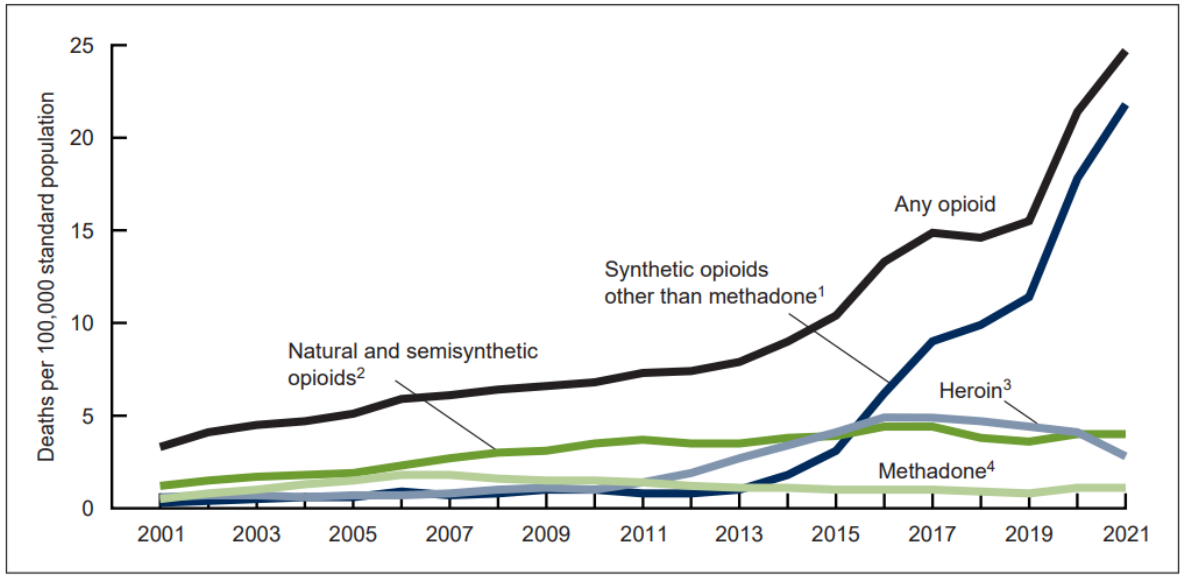
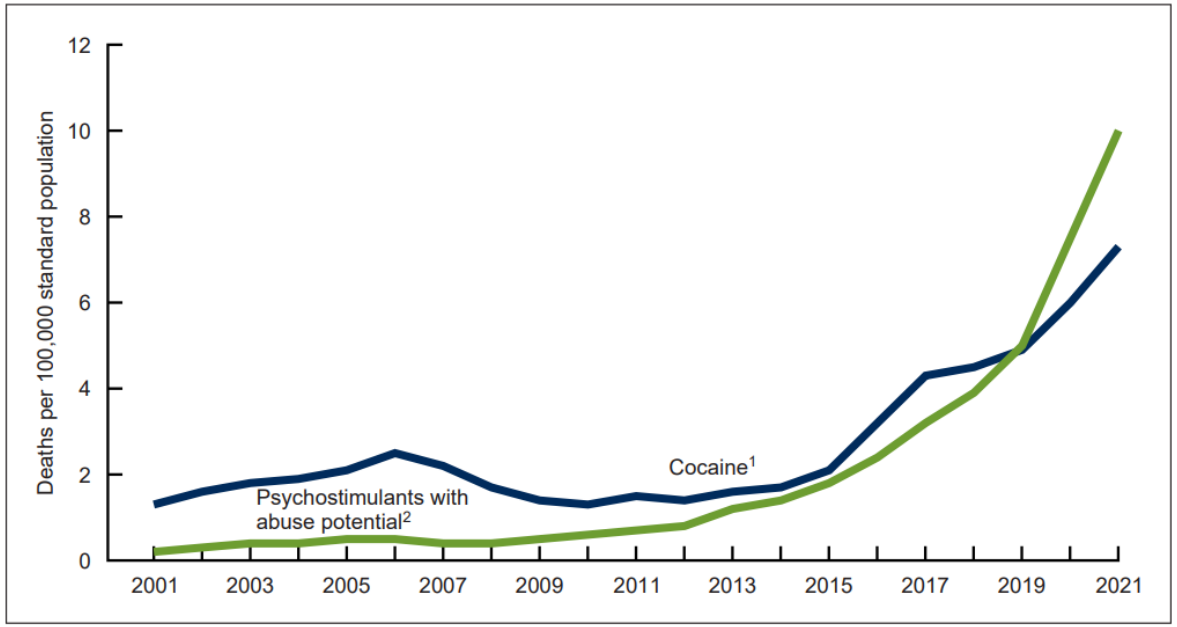
Figure 4. Age-adjusted rate of drug overdose deaths involving opioids, by type of opioid: United States, 2001–2021



[1]Significant increasing trend from 2001 through 2021 with different rates of change over time, $p < 0.05$.
[2]Significant increasing trend from 2001 through 2010, then stable trend from 2010 through 2021, $p < 0.05$.
[3]Significant increasing trend from 2001 through 2015 with different rates of change over time, stable trend from 2015 through 2019, then significant decreasing trend from 2019 through 2021, $p < 0.05$.
[4]Significant increasing trend from 2001 through 2006 with different rates of change over time, significant decreasing trend from 2006 through 2019, then stable trend from 2019 through 2021, $p < 0.05$.
NOTES: Drug overdose deaths were identified using *International Classification of Diseases, 10th Revision* (ICD–10) underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Among these deaths, the following ICD–10 multiple cause-of-death codes indicate the drug type(s) involved: T40.0–T40.4, T40.6, any opioid; T40.1, heroin; T40.2, natural and semisynthetic opioids; T40.3, methadone; and T40.4, synthetic opioids other than methadone. Age-adjusted death rates were calculated using the direct method and the 2000 U.S. standard population. Deaths involving more than one opioid category (a death involving both methadone and a natural or semisynthetic opioid, for example) were counted in both categories. The percentage of drug overdose deaths that identified the specific drugs involved varied by year, ranging from 75% to 79% from 2000 through 2013 and increasing from 81% in 2014 to 95% in 2021. Access data table for Figure 4 at: https://www.cdc.gov/nchs/data/databriefs/db457-tables.pdf#4.
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality File.

Figure 5. Age-adjusted rate of drug overdose deaths involving stimulants, by type of stimulant: United States, 2001–2021



[1]Significant increasing trend from 2001 through 2006, significant decreasing trend from 2006 through 2011, then significant increasing trend from 2011 through 2021, $p < 0.05$.
[2]Significant increasing trend from 2001 through 2005, stable trend from 2005 through 2008, then significant increasing trend from 2008 through 2021 with different rates of change over time, $p < 0.05$.
NOTES: Drug overdose deaths were identified using *International Classification of Diseases, 10th Revision* (ICD–10) underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Among these deaths, the following ICD–10 multiple cause-of-death codes indicate the drug type(s) involved: T40.5, cocaine; and T43.6, psychostimulants with abuse potential. Age-adjusted death rates were calculated using the direct method and the 2000 U.S. standard population. Deaths may involve more than one drug. The percentage of drug overdose deaths that identified the specific drugs involved varied by year, ranging from 75% to 79% from 2000 through 2013 and increasing from 81% in 2014 to 95% in 2021. Access data table for Figure 5 at: https://www.cdc.gov/nchs/data/databriefs/db457-tables.pdf#5.
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality File.

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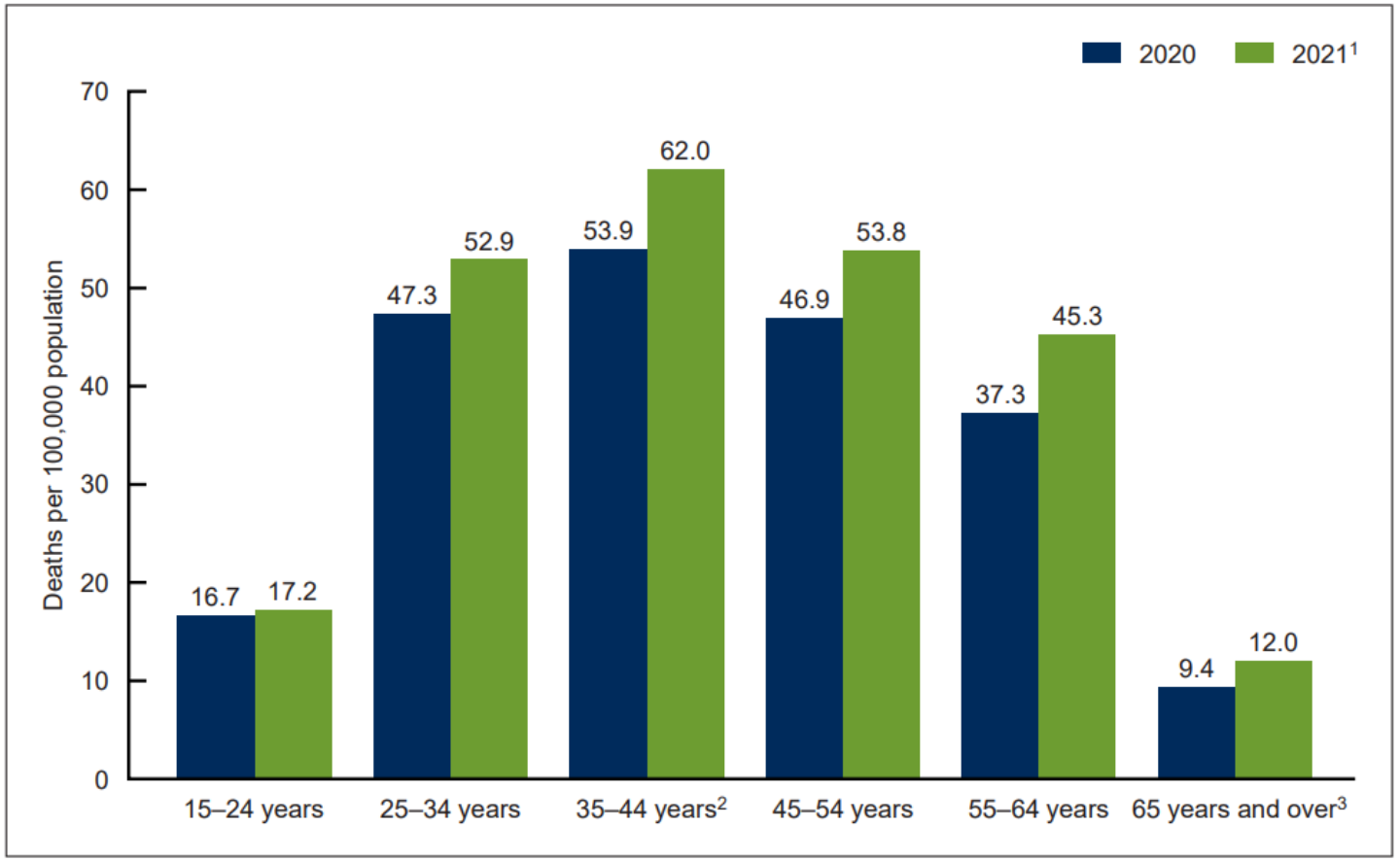
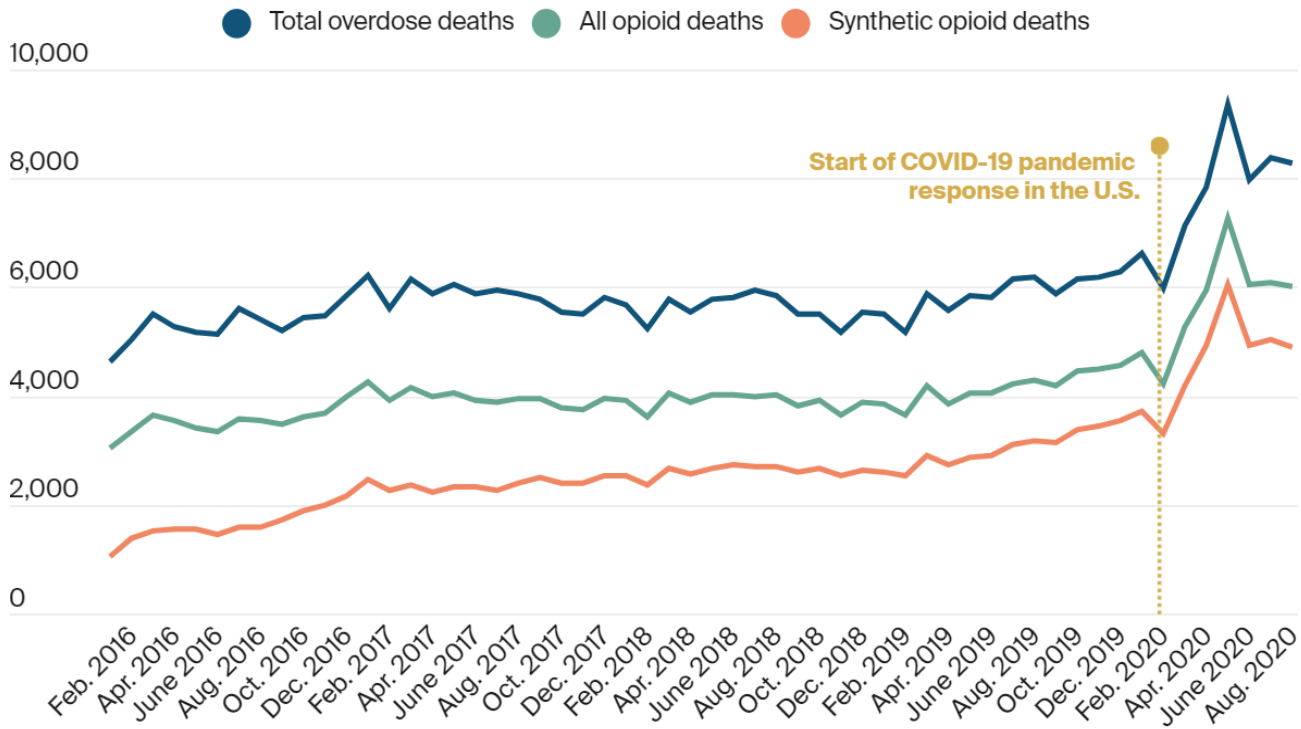
Figure 2. Rate of drug overdose deaths, by selected age groups 15 and over: United States, 2020 and 2021



[1]Except for those aged 15–24, rates in 2021 were significantly higher than in 2020 for all age groups, $p < 0.05$.
[2]Age group with highest rate in 2020 and 2021, $p < 0.05$.
[3]Age group with lowest rate in 2020 and 2021, $p < 0.05$.
NOTES: Drug overdose deaths were identified using *International Classification of Diseases, 10th Revision* underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Access data table for Figure 2 at: https://www.cdc.gov/nchs/data/databriefs/db457-tables.pdf#2.
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality File.

Monthly drug overdose deaths



Note: Synthetic opioid deaths exclude those from methadone. Specific drug-class deaths are not mutually exclusive.

Data: Final 2016–2019 monthly totals: CDC WONDER; Estimated 2020 monthly totals: Calculations based on National Vital Statistics System Provisional Drug Overdose Death Counts, CDC WONDER.

Source: Jesse C. Baumgartner and David C. Radley, "The Spike in Drug Overdose Deaths During the COVID-19 Pandemic and Policy Options to Move Forward," *To the Point* (blog), Mar. 25, 2021. https://doi.org/10.26099/gyf5-3z49

CDC Reports Nearly 24% Decline in U.S. Drug Overdose Deaths

RELEASE

For immediate release: February 25, 2025

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Los Angeles Times

U.S. overdose deaths fell through most of 2025, federal data reveal

By Mike Stobbe
AP Medical Writer

Jan. 19, 2026 3 AM PT

- U.S. overdose deaths dropped 21% through August 2025 — the longest sustained decline in decades — but remain above pre-pandemic levels.
- Overdose deaths declined in 45 states, though the rate of improvement is slowing after falling 27% in 2024, CDC data show.
- Experts cite increased naloxone access, addiction treatment expansion, Chinese chemical regulations and pandemic stimulus effects as possible drivers of the decline.

Jonathan Dumke, a senior forensic chemist with the Drug Enforcement Administration, holds vials of fentanyl at a DEA laboratory in northern Virginia on April 29.

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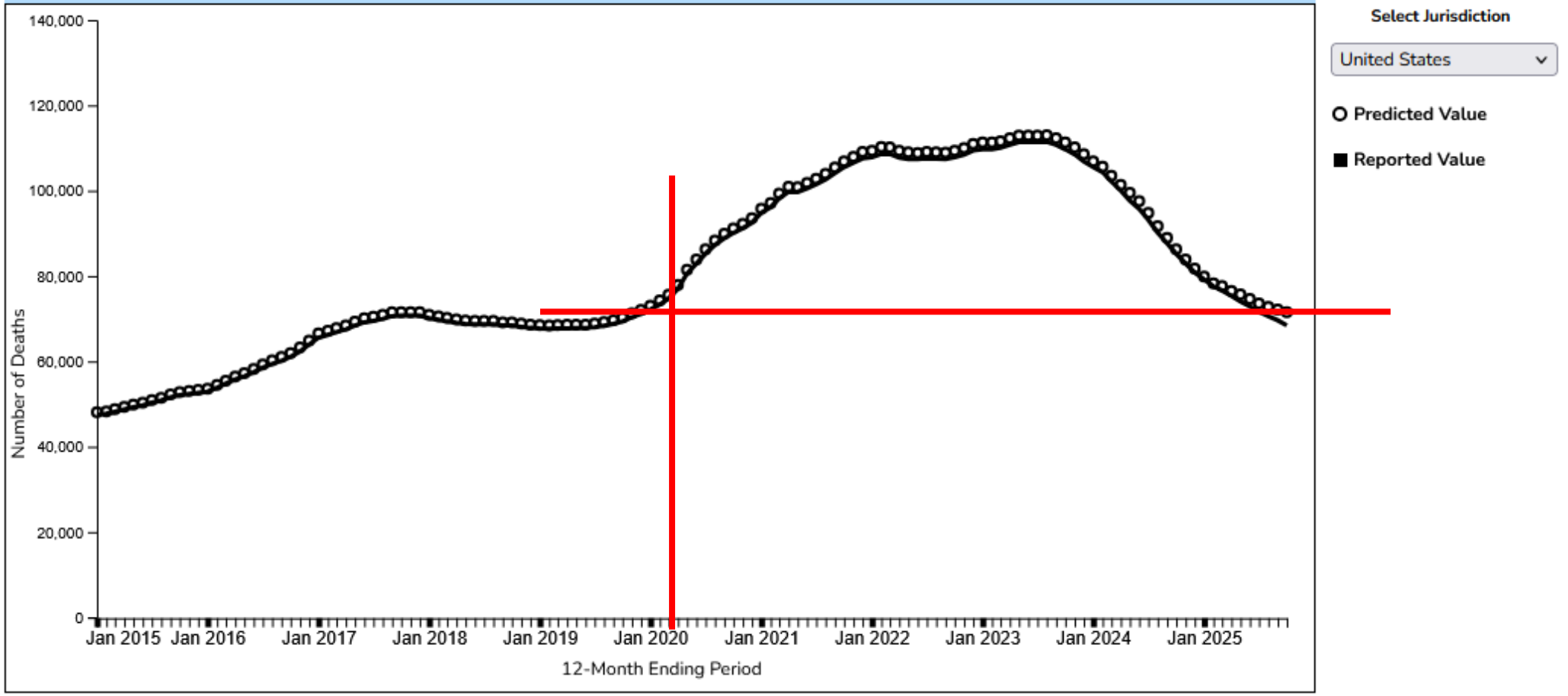
12 Month-ending Provisional Number and Percent Change of Drug Overdose Deaths

Based on data available for analysis on: March 1, 2026

Figure 1a. 12 Month-ending Provisional Counts of Drug Overdose Deaths: United States



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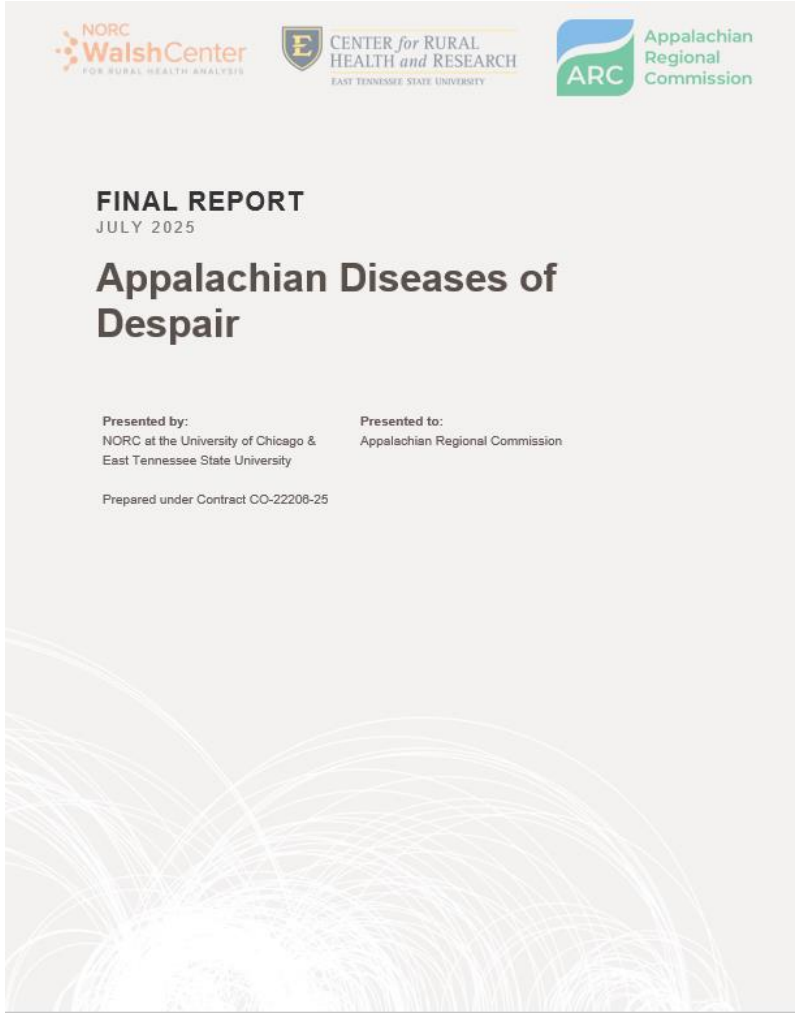
Appalachian Diseases of Despair (Neglect)

Appalachian Diseases of Neglect

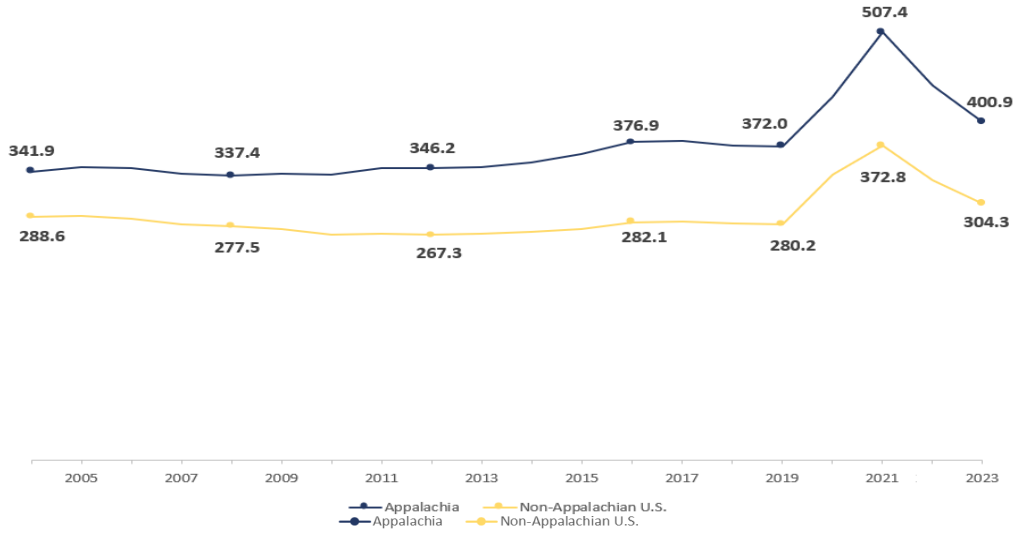
- First conducted in 2017 using 2015 data.
- Updates conducted in 2020 using 2018 data; 2022 using 2020 data; 2023 using 2021 data; and 2024 using 2022 data; and 2025 using 2023 data
- Analysis of mortality data[1] among individuals ages 15 to 64 for the following causes of death ("diseases of despair"):
  - Overdose (Alcohol poisonings and overdoses of prescription and illegal drugs – accidental and intent-undetermined deaths)
  - Suicide
  - Alcoholic liver disease/cirrhosis



[1]CDC National Center for Health Statistics (NCHS)'s National Vital Statistics System (NVSS), accessed at http://wonder.cdc.gov/mcd-icd10.html

Appalachian Diseases of Neglect

All-cause annual mortality rates, ages 15–64, by region (2004-2023)‡*



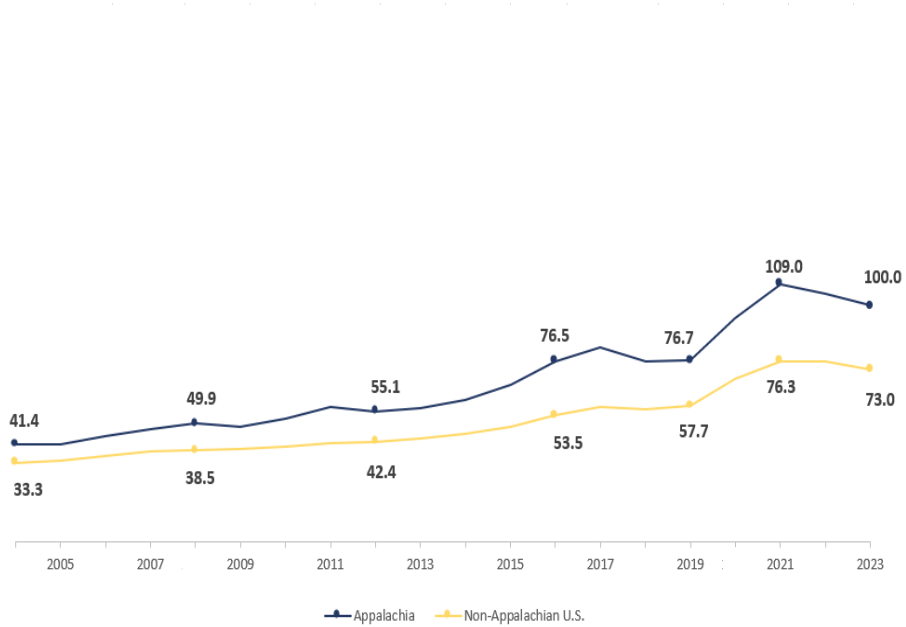
‡ Rates are presented as deaths per 100,000 population. Rates are age adjusted.

* For all years, the Appalachian rate is significantly different from the non-Appalachian U.S. rate, $p \leq 0.05$.

Source: Mortality Rates and Standard Errors provided by Centers for Disease Control and Prevention, National Center for Health Statistics.

Accessed at http://wonder.cdc.gov/mcd-icd10.html.

Diseases of despair annual mortality rates, ages 15–64, by region (2004–2023)‡*



‡ Rates are presented as deaths per 100,000 population. Rates are age adjusted.

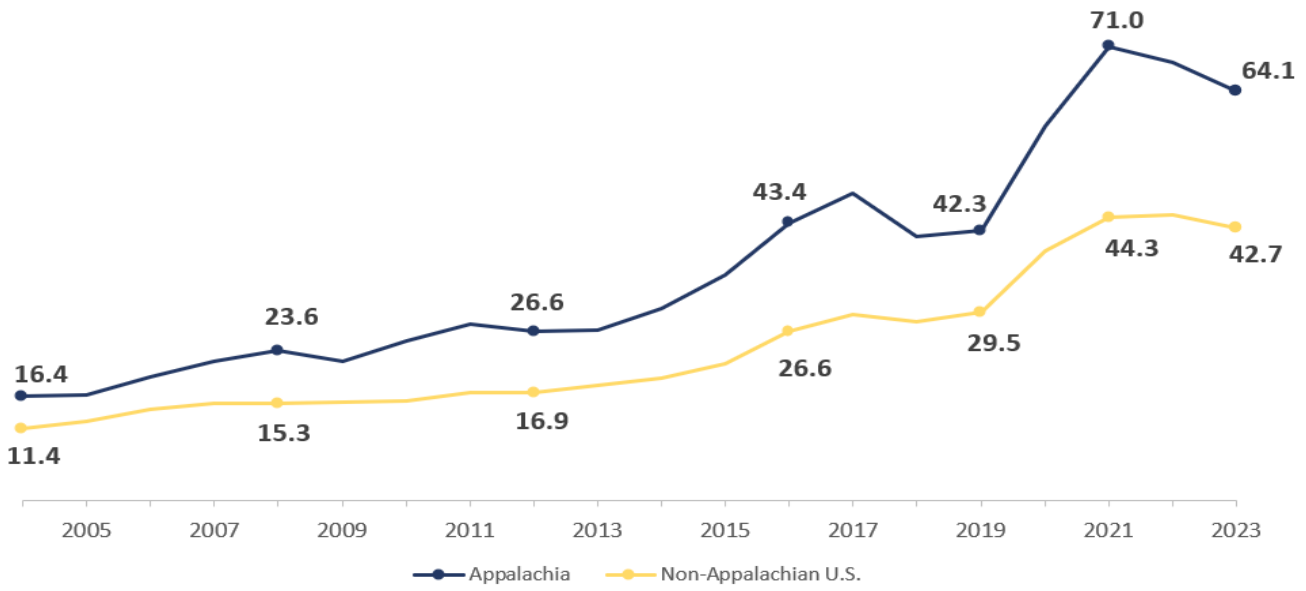
* For all years, the Appalachian rate is significantly different from the non-Appalachian U.S. rate, $p \leq 0.05$.

Source: Mortality Rates and Standard Errors provided by Centers for Disease Control and Prevention, National Center for Health Statistics.

Accessed at http://wonder.cdc.gov/mcd-icd10.html.

Overdose Mortality

Overdose annual mortality rates, ages 15–64, by region (2004–2023)‡*

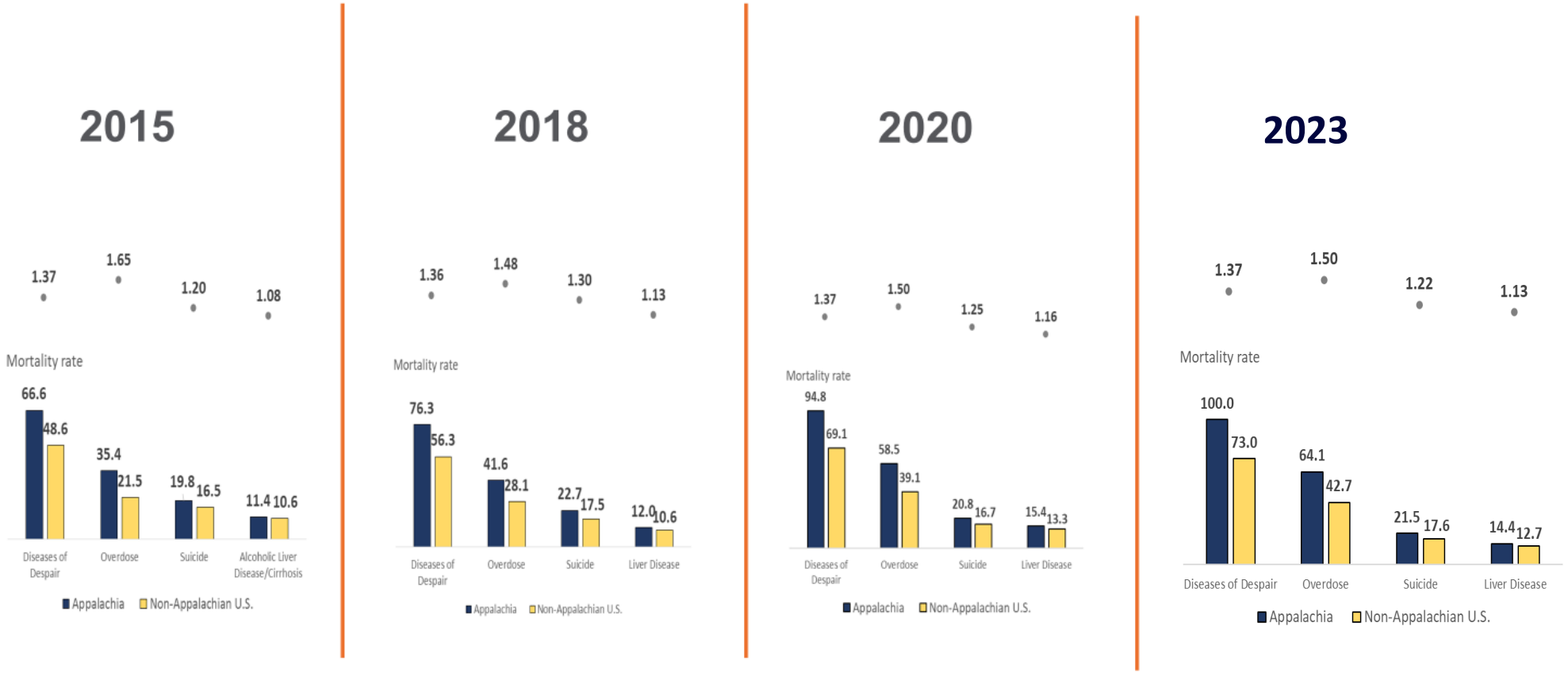


‡ Rates are presented as deaths per 100,000 population, and are age-adjusted.

* For all years, the Appalachian rate is significantly different from the non-Appalachian U.S. rate, $p \leq 0.05$.

Source: Mortality Rates and Standard Errors provided by the Centers for Disease Control and Prevention, National Center for Health Statistics. Accessed at http://wonder.cdc.gov/mcd-icd10.html.

Comparisons between 2015, 2018, 2020 and 2023



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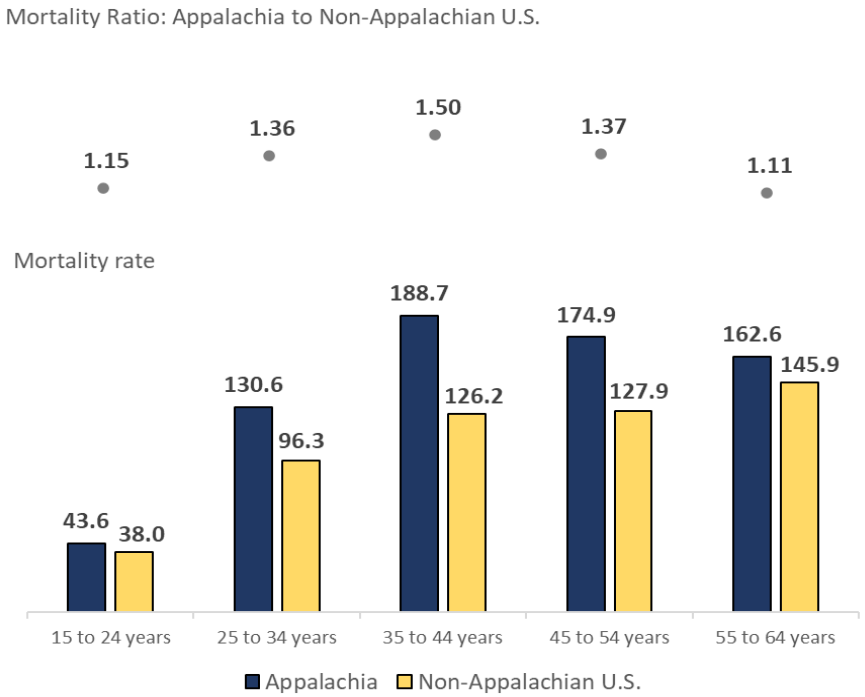
Diseases of Neglect by Age and Gender

Diseases of despair mortality rates for males, ages 15-64, by age and region 2023 ‡*



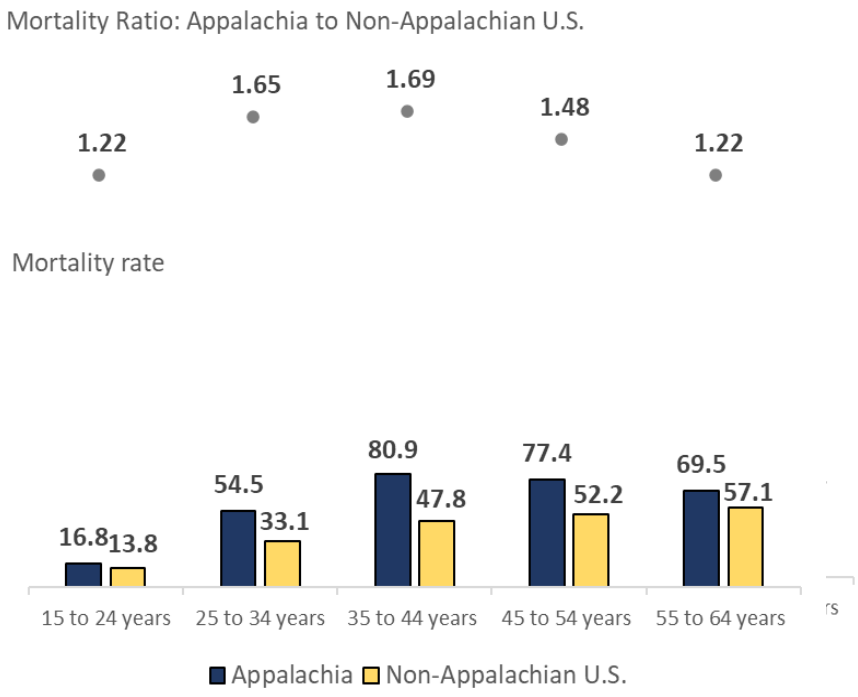
‡ Rates are presented as deaths per 100,000 population. Rates are crude mortality rates for each age group.

* For all age groups, Appalachian rate is significantly different from the non-Appalachian U.S. rate, $p \leq 0.05$.

Source: Mortality Rates and Standard Errors provided by Centers for Disease Control and Prevention, National Center for Health Statistics.

Accessed at http://wonder.cdc.gov/mcd-icd10.html.

Diseases of despair mortality rates for females, ages 15–64, by age and region 2023 ‡*



‡ Rates are presented as deaths per 100,000 population. Rates are crude mortality rates for each age group.

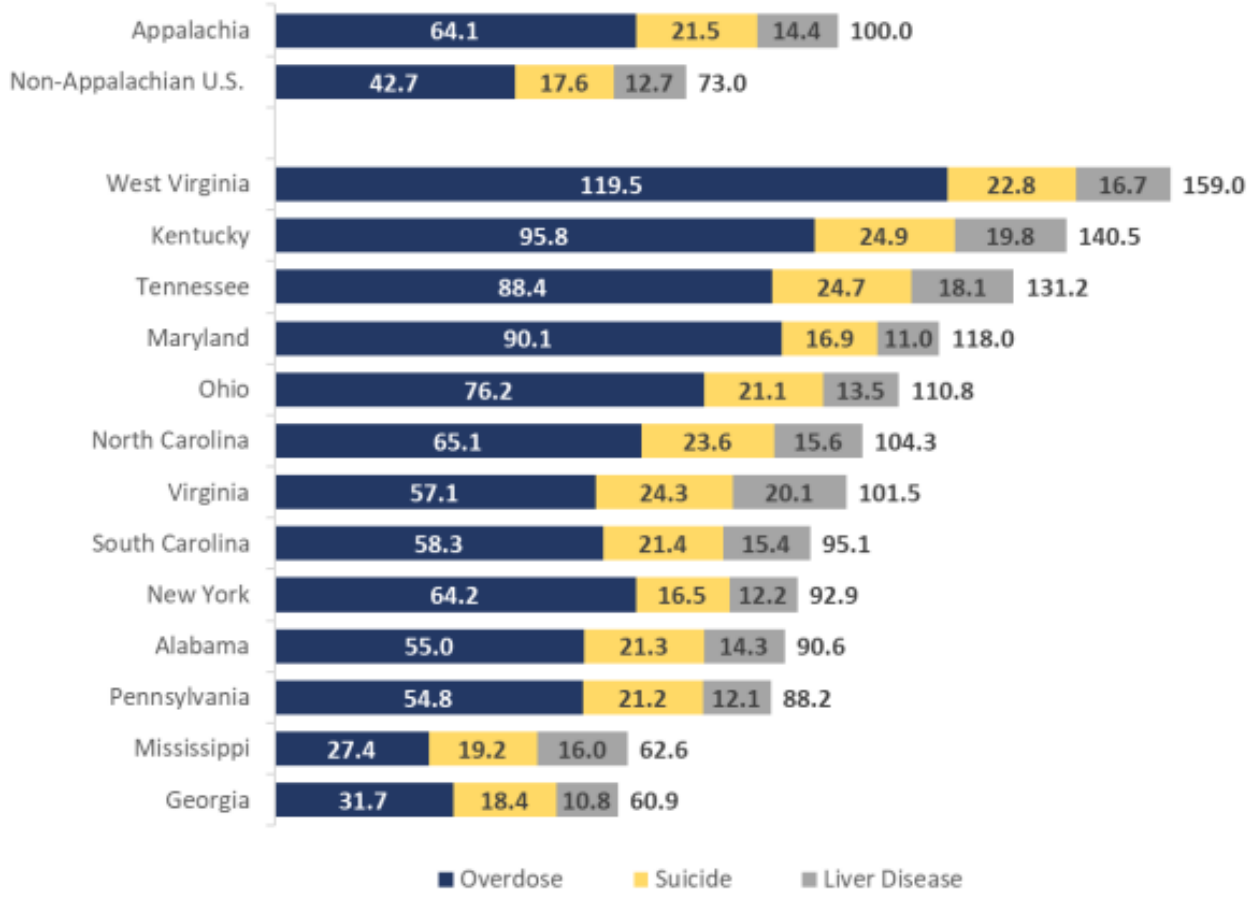
* For all age groups, Appalachian rate is significantly different from the non-Appalachian U.S. rate, $p \leq 0.05$.

Source: Mortality Rates and Standard Errors provided by Centers for Disease Control and Prevention, National Center for Health Statistics.

Accessed at http://wonder.cdc.gov/mcd-icd10.html.

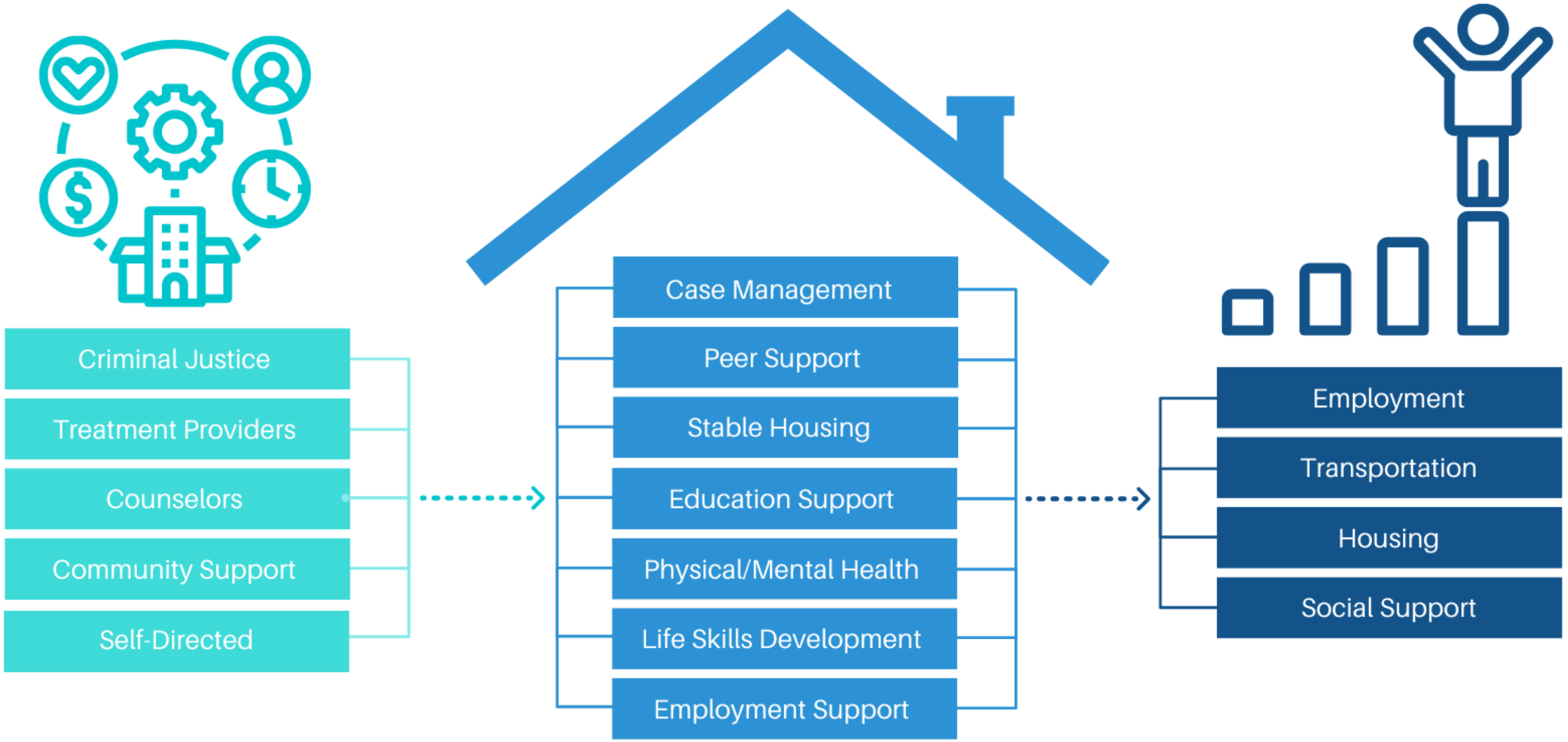
Diseases of Neglect by State

Exhibit 14. Diseases of despair mortality rates, ages 15–64, by state^ and disease (2023)‡




What is a Recovery Ecosystem?

How A Recovery Ecosystem Creates Recovery Capital



The Rural Recovery Ecosystem Index

NORC at the University of Chicago

EAST TENNESSEE STATE UNIVERSITY

FLETCHER GROUP

Building Recovery Ecosystems

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Recovery Ecosystem Index

Goals of the project:

- Measure the strength of rural county-level recovery ecosystems
- Build a mapping tool using the Recovery Ecosystem Index
- Provide data support community planning, programming, and technical assistance to strengthen recovery ecosystems

Selecting Indicators for Recovery Ecosystem Index:

NORC/ETSU conducted a literature review on recovery ecosystems, identifying several concepts and potential indicators to include in the index

During the first TEP meeting, we solicited input on key concepts for the index, including potential indicators

Based on this information, NORC/ETSU compiled a list of over 100 potential indicators

We investigated the data availability for these indicators and removed ones that lacked publicly available county-level data

We then reviewed 36 indicators with the TEP to prioritize for inclusion in the index

Final Recovery Ecosystem Index Measures

Component/Domain	Indicator
SUD Treatment	Substance Use Treatment Facilities Per Capita
	Providers Licensed to Administer Buprenorphine Per Capita
	Average Distance to Nearest Medication-Assisted Treatment (MAT) Provider
Continuum of SUD Support	Mental Health Providers Per Capita
	Recovery Residences Per Capita
	Average Distance to Nearest Syringe-Service Program (SSP)
	Narcotics Anonymous (NA) or Self-Management and Recovery Training (SMART) Meetings per Capita
	Drug Court Presence
	Drug-Free Communities Coalition Presence
	Policy Environment Score
Social and Infrastructure	Vehicle Availability
	Severe Housing Cost Burden
	Broadband Access
	Social Associations Per Capita

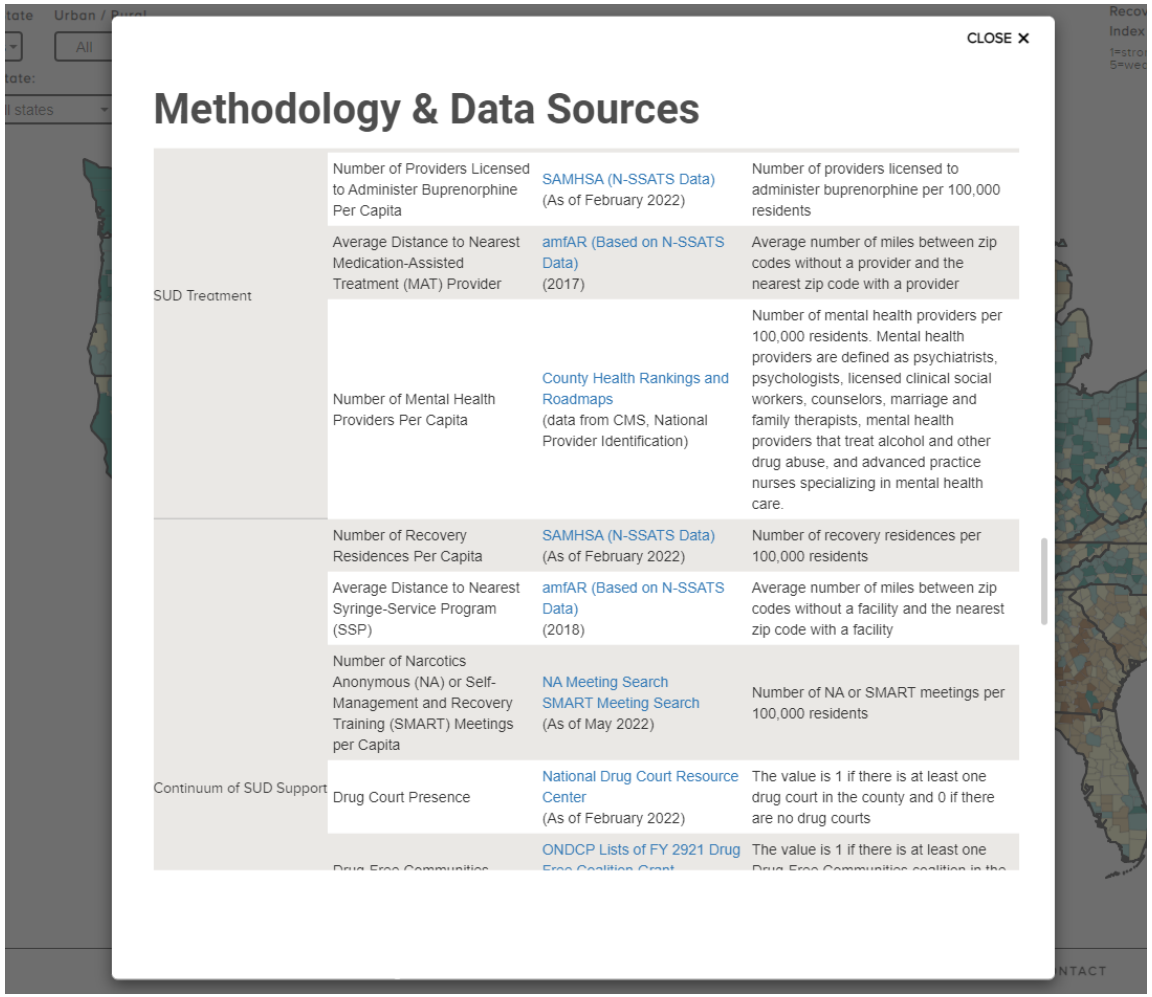
New Indicators *(released August 2024)*

Component/Domain	Indicator
SUD Treatment	Substance Use Treatment Facilities Per Capita
	Average Distance to Nearest Medication-Assisted Treatment (MAT) Provider
	Mental Health Providers per Capita
Continuum of SUD Support	Average Distance to Nearest Syringe-Service Program (SSP)
	Narcotics Anonymous (NA) or Self-Management and Recovery Training (SMART) Meetings per Capita
	Drug Court Presence
	Drug-Free Communities Coalition Presence
	Policy Environment Score

Policy Indicators

Category	Policy
Good Samaritan Overdose Prevention Laws	Does the law provide protection from probation or parole violations?
	Does the jurisdiction have a drug overdose Good Samaritan Law?
	Is reporting an overdose considered a mitigating factor in sentencing?
Commercial Insurance and Medicaid Coverage of Medications for Opioid Use Disorder Treatment	Does the state require commercial insurers to provide coverage for MOUD?
	Does the state Medicaid plan include coverage for behavioral health supports for MOUD?
	Does the state have an approved Medicaid State Plan Amendment to facilitate the provision of MOUD?
Requirements for Licensure and Operations of Medications for Opioid Use Disorder Treatment	Are licensed SUD programs required to facilitate access to MOUD programs?
Syringe Service Program Laws	Does state law allow for the operation of syringe service programs (SSPs)?
	Does state law allow for the possession of syringes by SSP participants?

Overview of Mapping Tool – Methodology & Data Sources



SUD Treatment	Number of Providers Licensed to Administer Buprenorphine Per Capita	SAMHSA (N-SSATS Data) (As of February 2022)	Number of providers licensed to administer buprenorphine per 100,000 residents
	Average Distance to Nearest Medication-Assisted Treatment (MAT) Provider	amfAR (Based on N-SSATS Data) (2017)	Average number of miles between zip codes without a provider and the nearest zip code with a provider
	Number of Mental Health Providers Per Capita	County Health Rankings and Roadmaps (data from CMS, National Provider Identification)	Number of mental health providers per 100,000 residents. Mental health providers are defined as psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, mental health providers that treat alcohol and other drug abuse, and advanced practice nurses specializing in mental health care.
Continuum of SUD Support	Number of Recovery Residences Per Capita	SAMHSA (N-SSATS Data) (As of February 2022)	Number of recovery residences per 100,000 residents
	Average Distance to Nearest Syringe-Service Program (SSP)	amfAR (Based on N-SSATS Data) (2018)	Average number of miles between zip codes without a facility and the nearest zip code with a facility
	Number of Narcotics Anonymous (NA) or Self-Management and Recovery Training (SMART) Meetings per Capita	NA Meeting Search SMART Meeting Search (As of May 2022)	Number of NA or SMART meetings per 100,000 residents
	Drug Court Presence	National Drug Court Resource Center (As of February 2022)	The value is 1 if there is at least one drug court in the county and 0 if there are no drug courts
	Drug Free Communities	ONDCP Lists of FY 2921 Drug Free Coalition Grant	The value is 1 if there is at least one Drug Free Communities coalition in the

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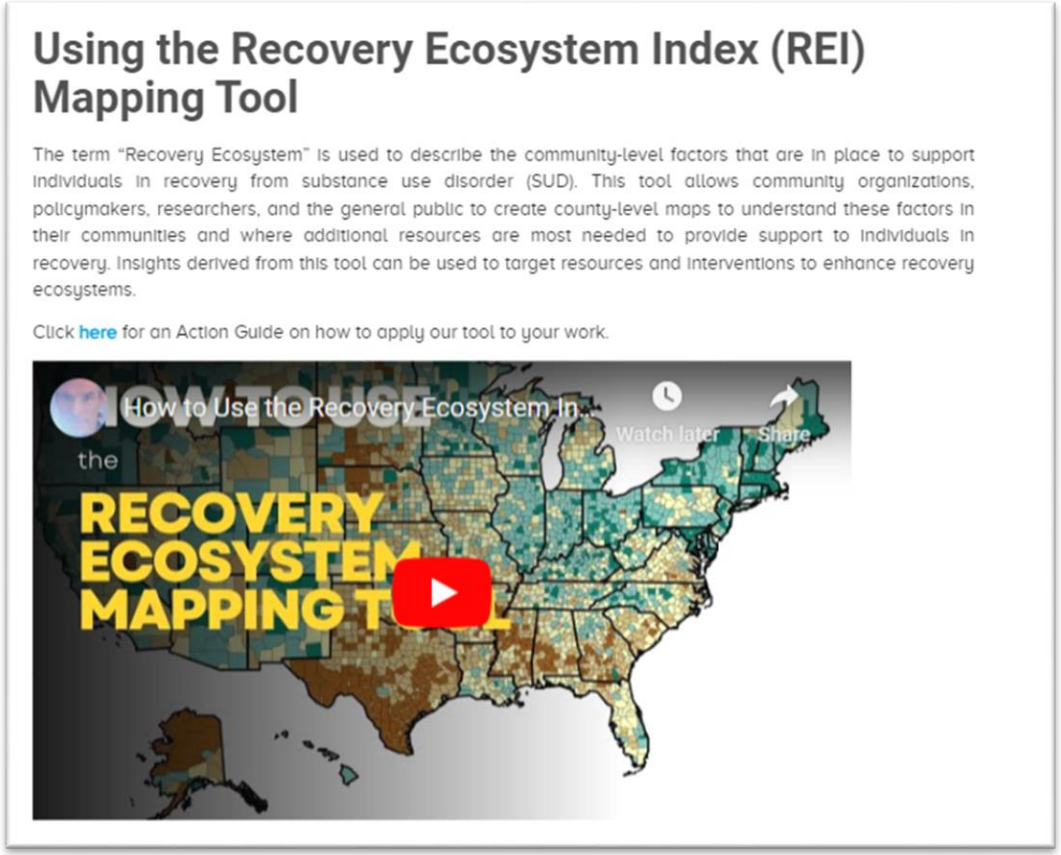
New Resources to Support Use of REI Tool

Released in August 2023:

- Two videos that provide demonstrations of the mapping tool and how to use the REI
  - Welcome to the Recovery Ecosystem Index Mapping Tool: About the Tool
  - How to Use the Recovery Ecosystem Index Mapping Tool
- Recovery Ecosystem Index Action Guide



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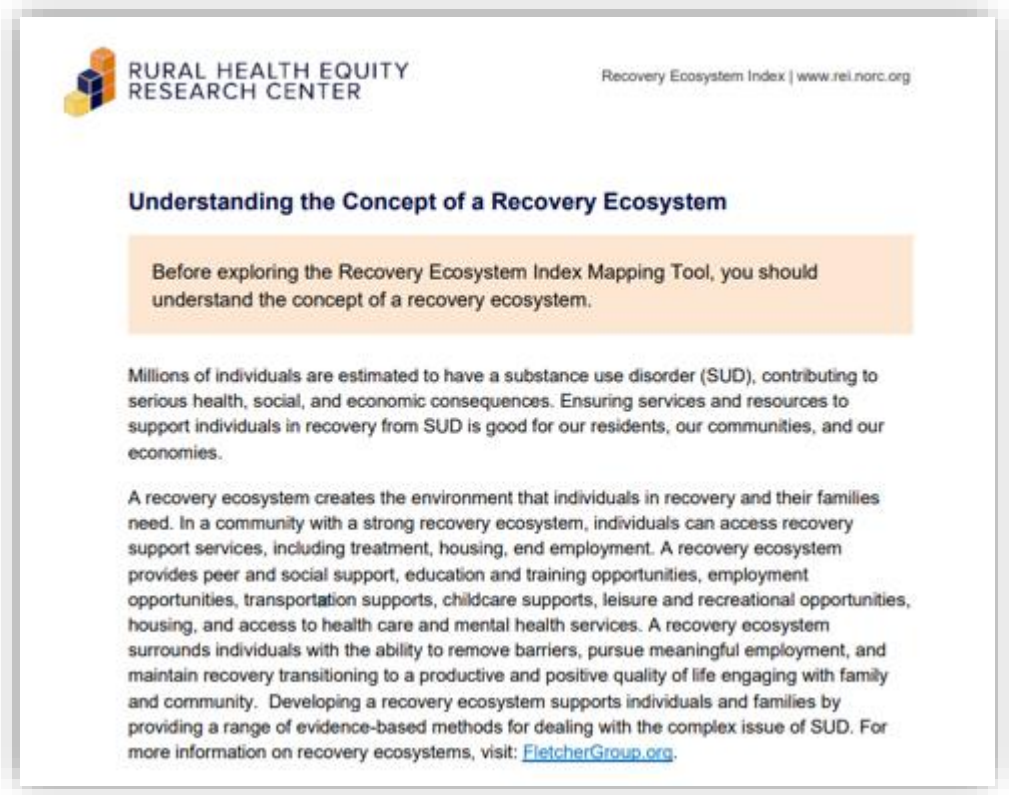
Action Guide: How to Apply the REI Tool

https://rei.norc.org

Step 1: Understanding the Concept of Recovery Ecosystem

- Review resources provided to understand the concept of a recovery ecosystem



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Recovery Ecosystem Index | www.rei.norc.org

Understanding the Concept of a Recovery Ecosystem

Before exploring the Recovery Ecosystem Index Mapping Tool, you should understand the concept of a recovery ecosystem.

Millions of individuals are estimated to have a substance use disorder (SUD), contributing to serious health, social, and economic consequences. Ensuring services and resources to support individuals in recovery from SUD is good for our residents, our communities, and our economies.

A recovery ecosystem creates the environment that individuals in recovery and their families need. In a community with a strong recovery ecosystem, individuals can access recovery support services, including treatment, housing, end employment. A recovery ecosystem provides peer and social support, education and training opportunities, employment opportunities, transportation supports, childcare supports, leisure and recreational opportunities, housing, and access to health care and mental health services. A recovery ecosystem surrounds individuals with the ability to remove barriers, pursue meaningful employment, and maintain recovery transitioning to a productive and positive quality of life engaging with family and community. Developing a recovery ecosystem supports individuals and families by providing a range of evidence-based methods for dealing with the complex issue of SUD. For more information on recovery ecosystems, visit: FletcherGroup.org.

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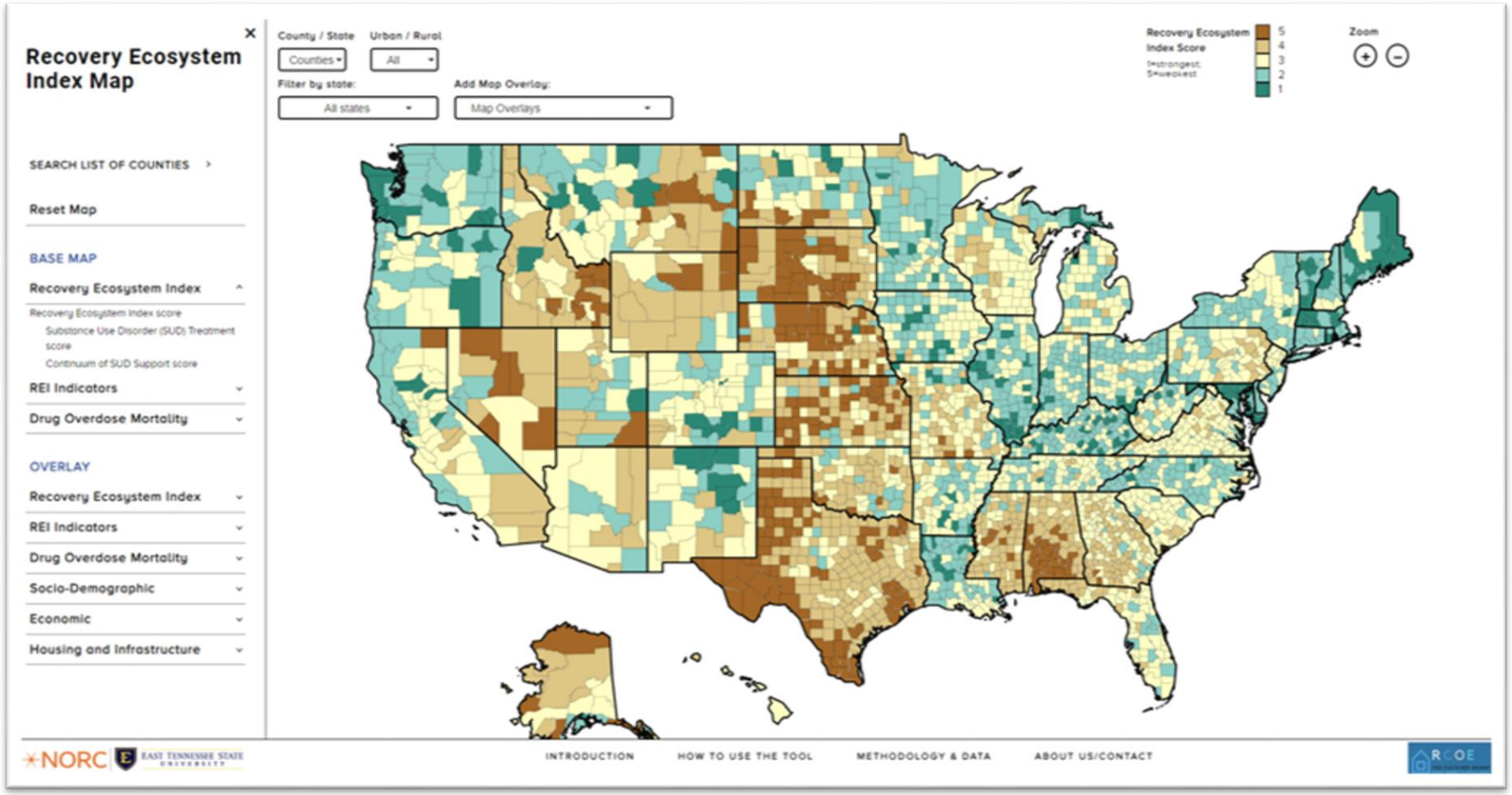
Step 2: Gather Data from the Tool

- The base map of the tool can be either the Recovery Ecosystem Index or drug overdose mortality
- View the base map to see the distribution across the United States for these indicators

Users can gather data on a range of indicators from the tool, such as Recovery Ecosystem Index Scores, overdose mortality, sociodemographic data, economic data, and more. These data can be used to grant, proposal, and report writing as well ass inform community planning.

rei.norc.org – Base Map – Overall Recovery Ecosystem Index



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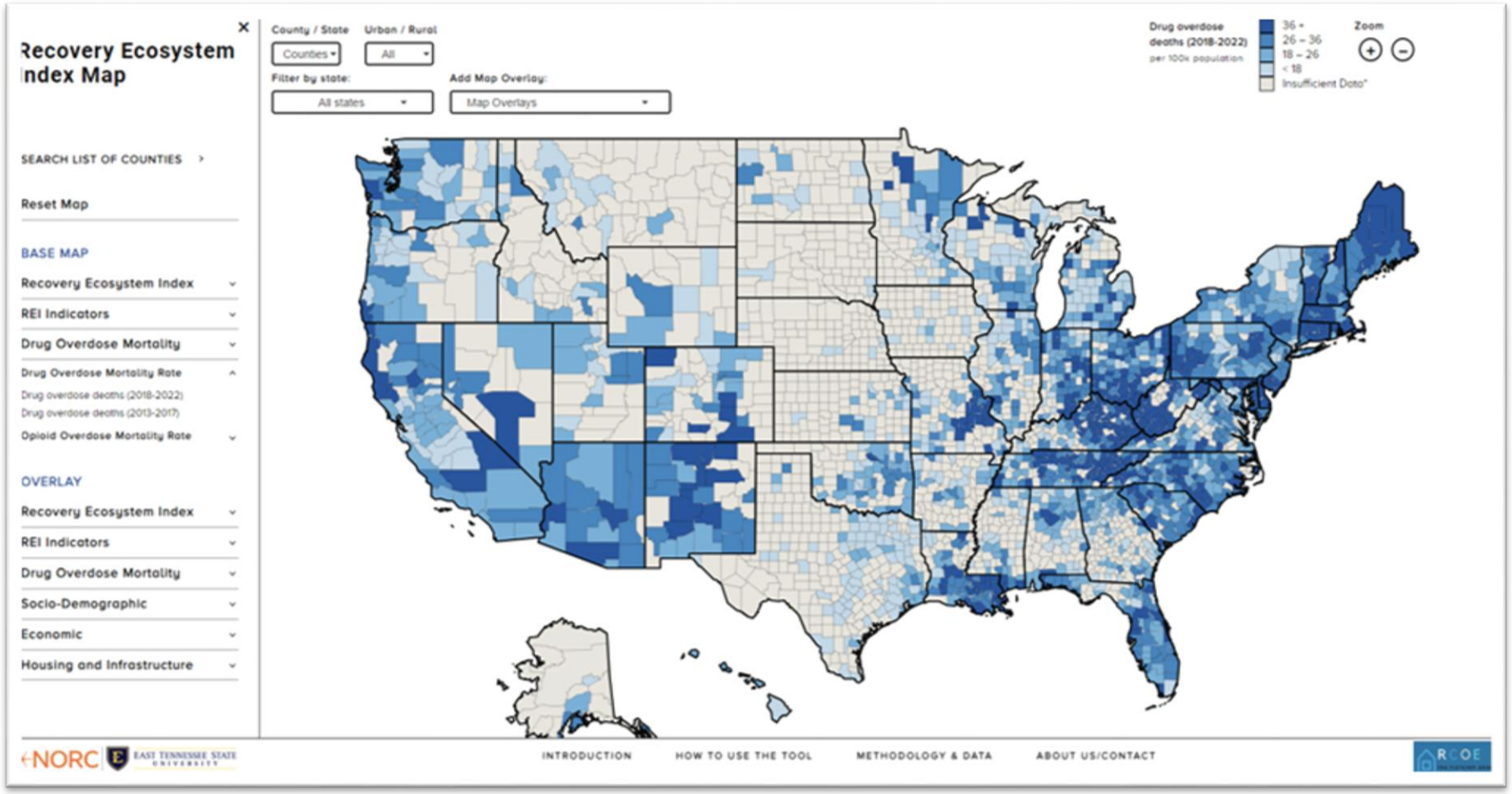
rei.norc.org – Base Map – Overdose Mortality (2018-2022)



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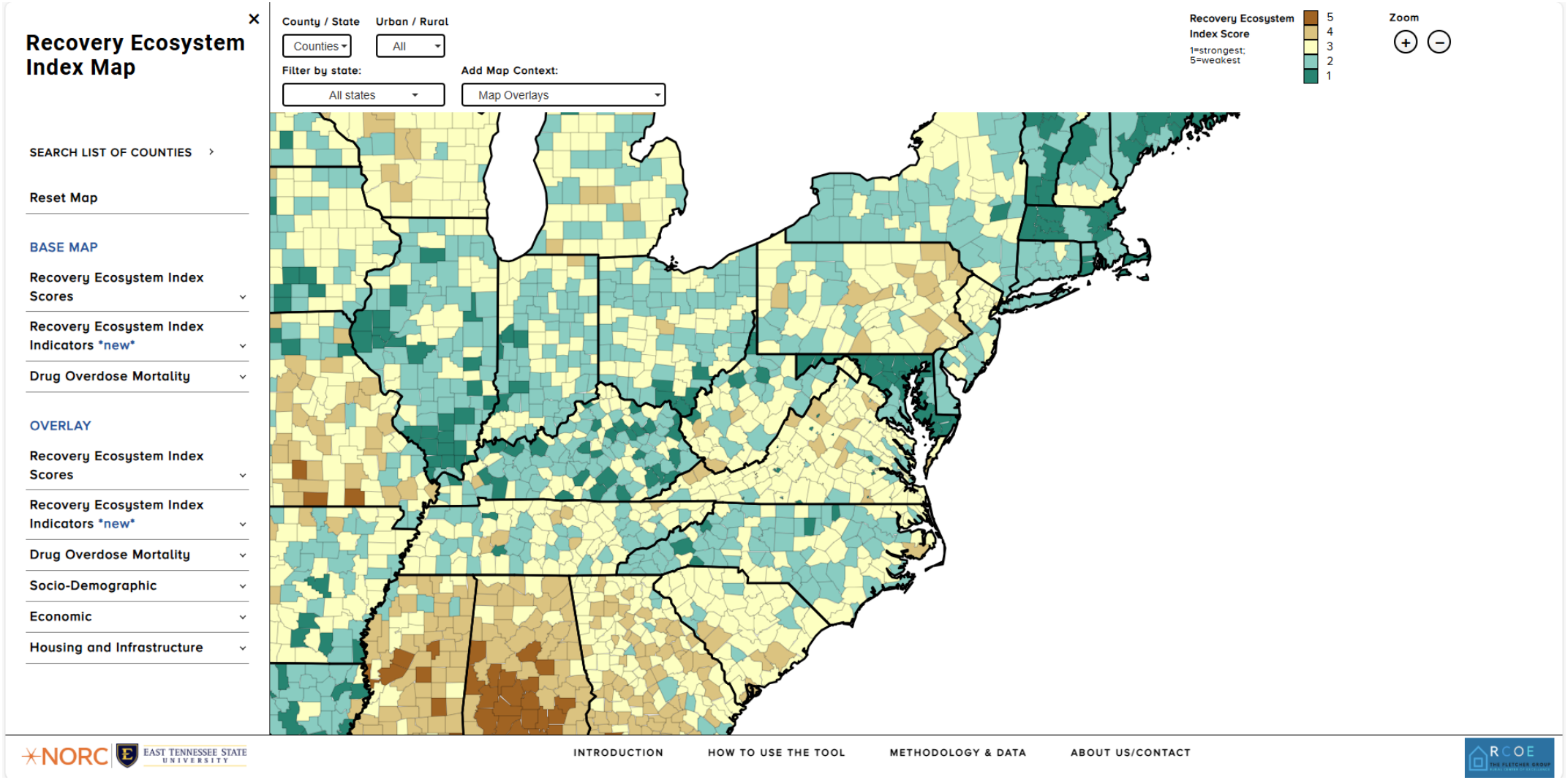

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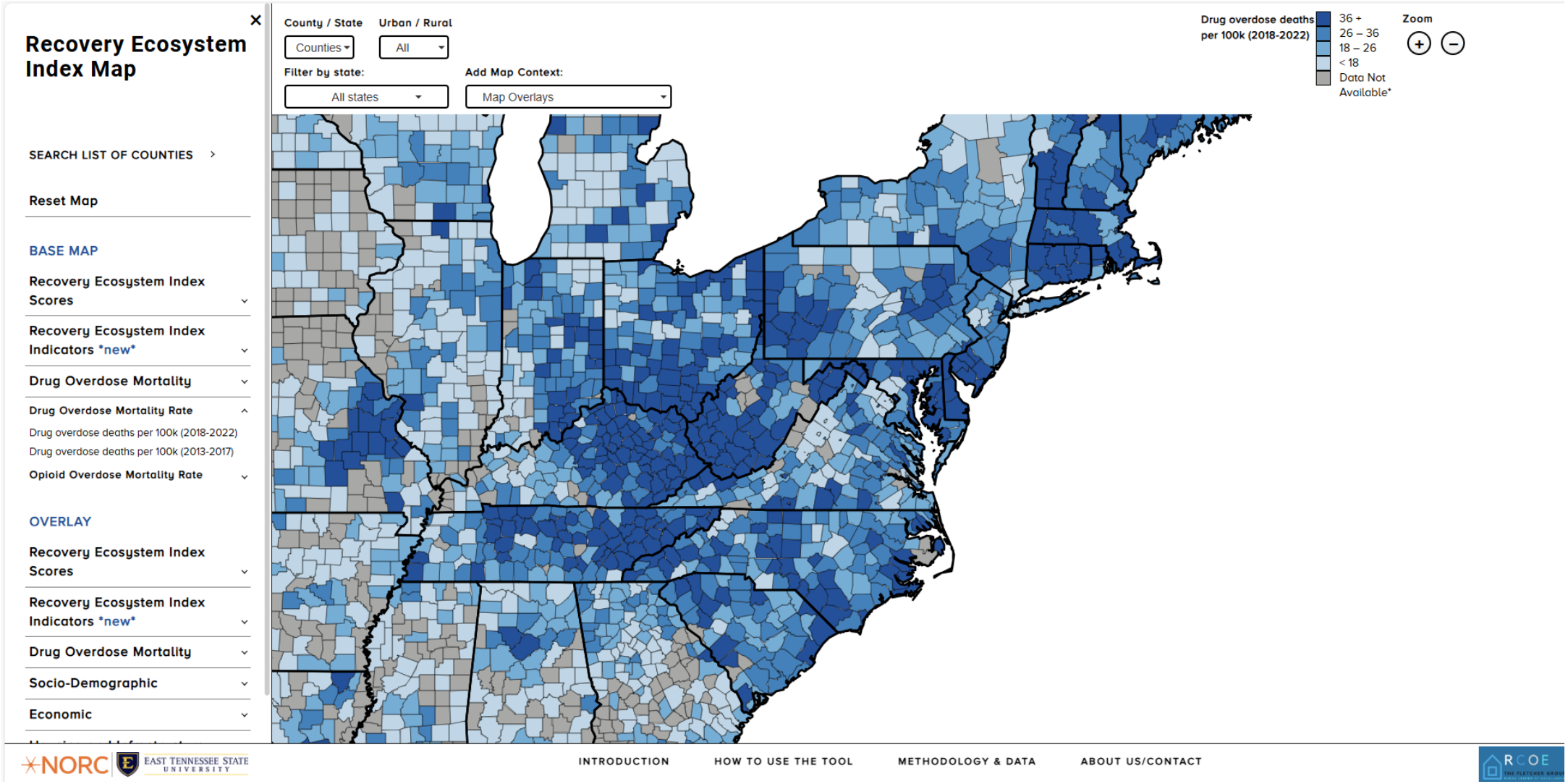
Recovery Ecosystem Index Map
SEARCH LIST OF COUNTIES
Reset Map
BASE MAP
Recovery Ecosystem Index Scores
Recovery Ecosystem Index Indicators *new*
Drug Overdose Mortality
Drug Overdose Mortality Rate
Drug overdose deaths per 100k (2018-2022)
Drug overdose deaths per 100k (2013-2017)
Opioid Overdose Mortality Rate
OVERLAY
Recovery Ecosystem Index Scores
Recovery Ecosystem Index Indicators *new*
Drug Overdose Mortality
Socio-Demographic
Economic
County / State
Counties
Urban / Rural
All
Filter by state:
All states
Add Map Context:
Map Overlays
Drug overdose deaths per 100k (2018-2022)
36 +
26 – 36
18 – 26
< 18
Data Not Available*
Zoom
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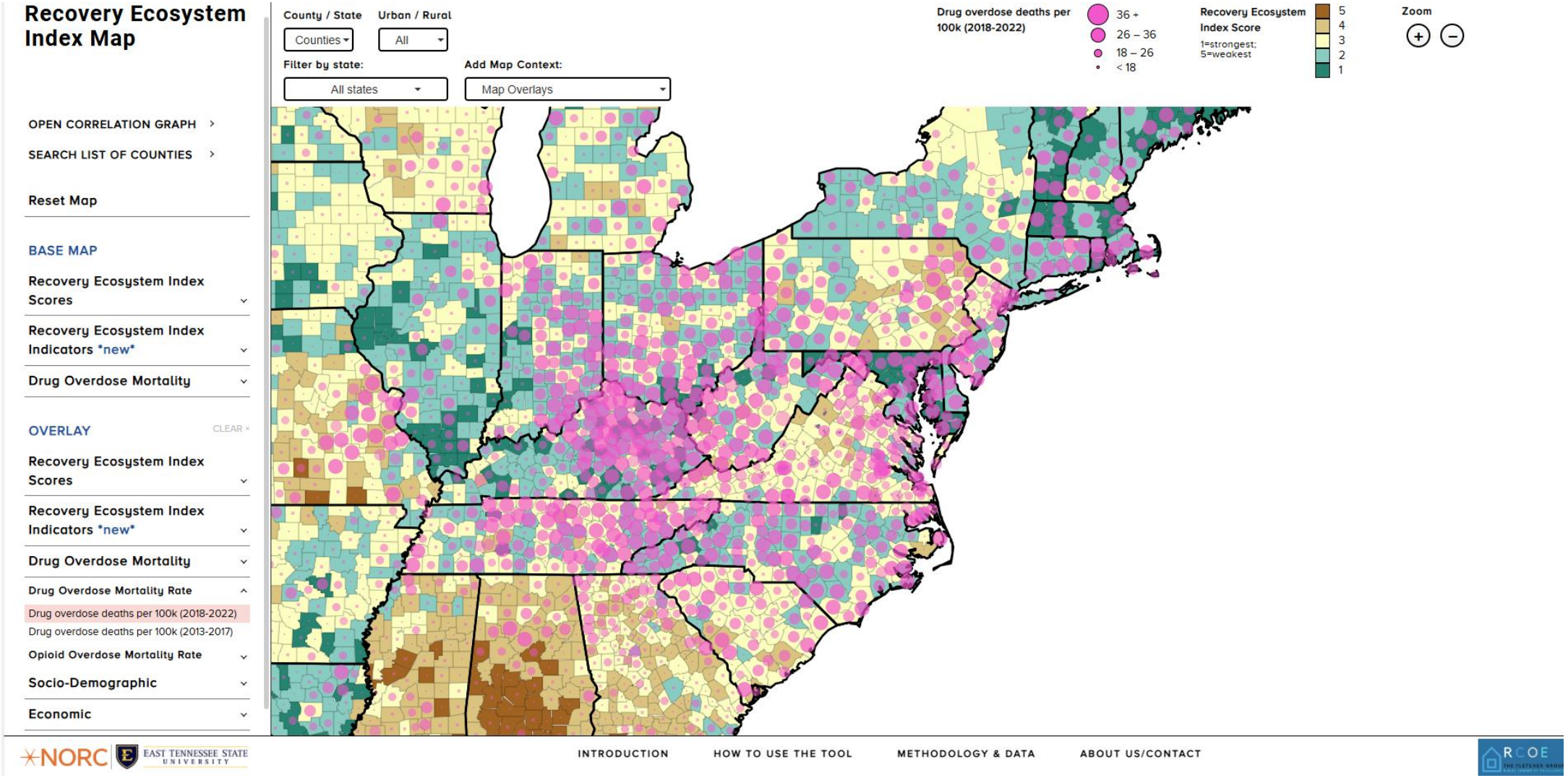
INTRODUCTION
HOW TO USE THE TOOL
METHODOLOGY & DATA
ABOUT US/CONTACT
RCOE



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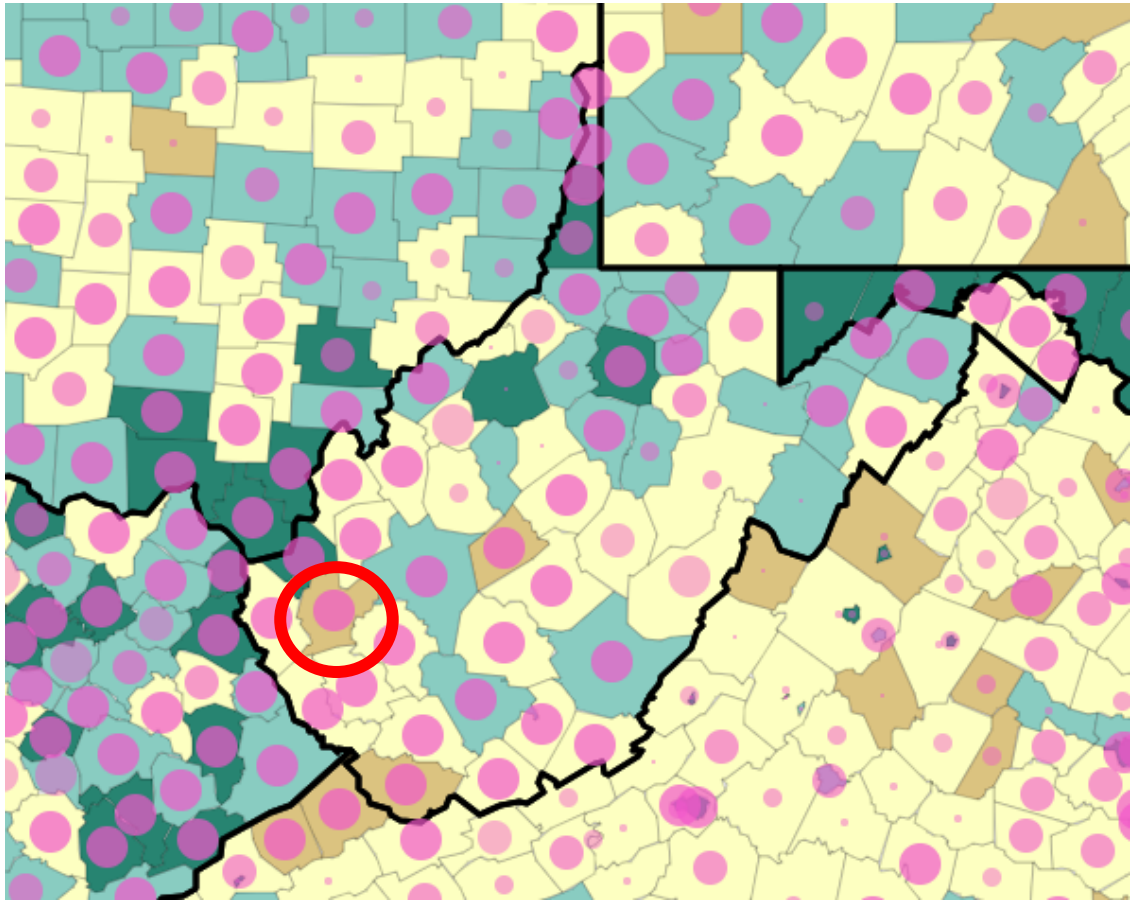

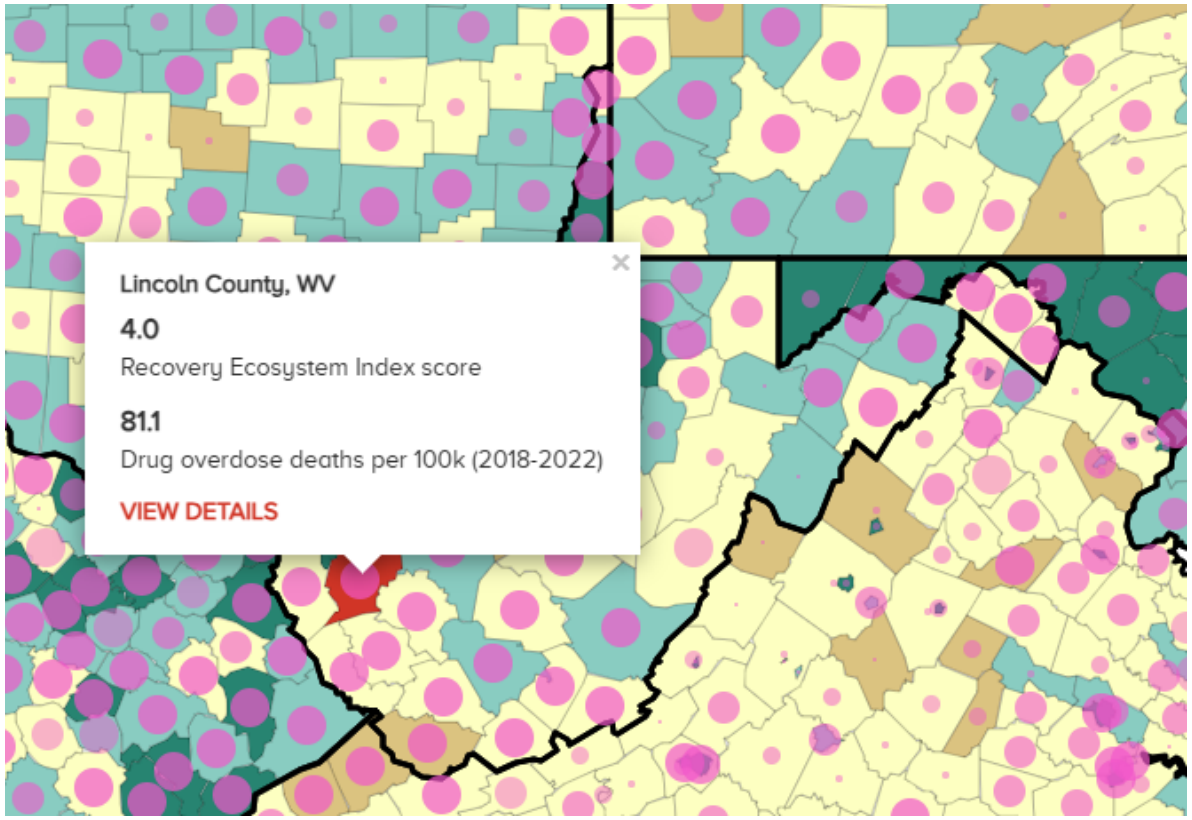

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Overview of Mapping Tool – County Fact Sheet

CLOSE ✕

Lincoln County, WV

Recovery Ecosystem Index Score

4.0

20,410 Population (Rural)

Hover over a variable in the data table, and its definition will appear below

Print Data Tables

Select data table: Recovery Ecosystem Index Scores

Component	Score	Sub-Component	Lincoln County, WV	West Virginia	United States
Substance Use Disorder (SUD) Treatment	3	Substance Use Treatment Facilities per 100k	4.9	4.7	4.2
		Average Distance to Nearest MAT Provider (miles)	12.3	10.7	18.4
		Mental Health Providers per 100k	65.3	179.3	340.5
Continuum of SUD Support	4	Average Distance to Nearest SSP (miles)	38.7	31.9	70.0
		NA or SMART Recovery Meetings per 100k	0.0	11.6	6.0
		Has there been a Drug-Free Communities Coalition grant recipient in the county in the past 3 years?	No	14.5%	19.4%
		Is there an adult drug court in the county?	Yes	69.1%	47.3%
		State SUD Policy Environment Score (0=lowest; 10=highest)	5.0	5.0	N/A
		Social Associations per 10k	3.5	12.7	10.6

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Overview of Mapping Tool – View Details

CLOSE ✕

Lincoln County, WV

Recovery Ecosystem Index Score

4.0

20,410 Population (Rural)

Hover over a variable in the data table, and its definition will appear below

Select data table: Drug Overdose Mortality

Print Data Tables

Drug Overdose Mortality Data Table

Drug Overdose Mortality	Lincoln County, WV	West Virginia	United States
Drug overdose deaths per 100k (2018-2022)	81.1	65.9	26.9
Drug overdose deaths per 100k (2013-2017)	50.7	41.1	17.3
Opioid overdose deaths per 100k (2018-2022)	69.3	54.8	19.8
Opioid overdose deaths per 100k (2013-2017)	48.8	35.2	11.0

State Policies:

Note: Some policy information may be outdated. Please review the Methodology & Data Sources page for more information on the source for each policy and the year the data were most recently updated.

Policy	West Virginia
Does the law provide protection from probation or parole violations?	Yes (W. Va. Code Sec. 16-47-4(g)) (W. Va. Code 16-47-5)
Does the jurisdiction have a drug overdose Good Samaritan Law?	Yes (W. Va. Code Sec. 16-47-4) (W. Va. Code 16-47-5)
Is reporting an overdose considered a mitigating factor in sentencing?	Yes (W. Va. Code Sec. 16-47-4(d))
Does the state require commercial insurers to provide coverage for MOUD?	No
Does the state Medicaid plan include coverage for behavioral health supports for MOUD?	No
Does the state have an approved Medicaid State Plan Amendment to facilitate the provision of MOUD?	No
Are licensed SUD programs required to facilitate access to MOUD programs?	No
Does state law allow for the operation of syringe service programs (SSPs)?	Yes (W. Va. Code § 47-19-3. Drug paraphernalia defined; W. Va. Code § 60A-4-403a. Prohibition of illegal drug paraphernalia businesses; definitions; places deemed common and public nuisances; abatement; suit to abate nuisances; injunction; search warrants; forfeiture of property; penalties; W. Va. Code, § 16-64-1; W. Va. Code, § 16-64-2)
Does state law allow for the possession of syringes by SSP participants?	Yes (W. Va. Code § 60A-4-403a. Prohibition of illegal drug paraphernalia businesses; definitions; places deemed common and public nuisances; abatement; suit to abate nuisances; injunction; search warrants; forfeiture of property; penalties; W. Va. Code, § 16-64-8. Immunity)

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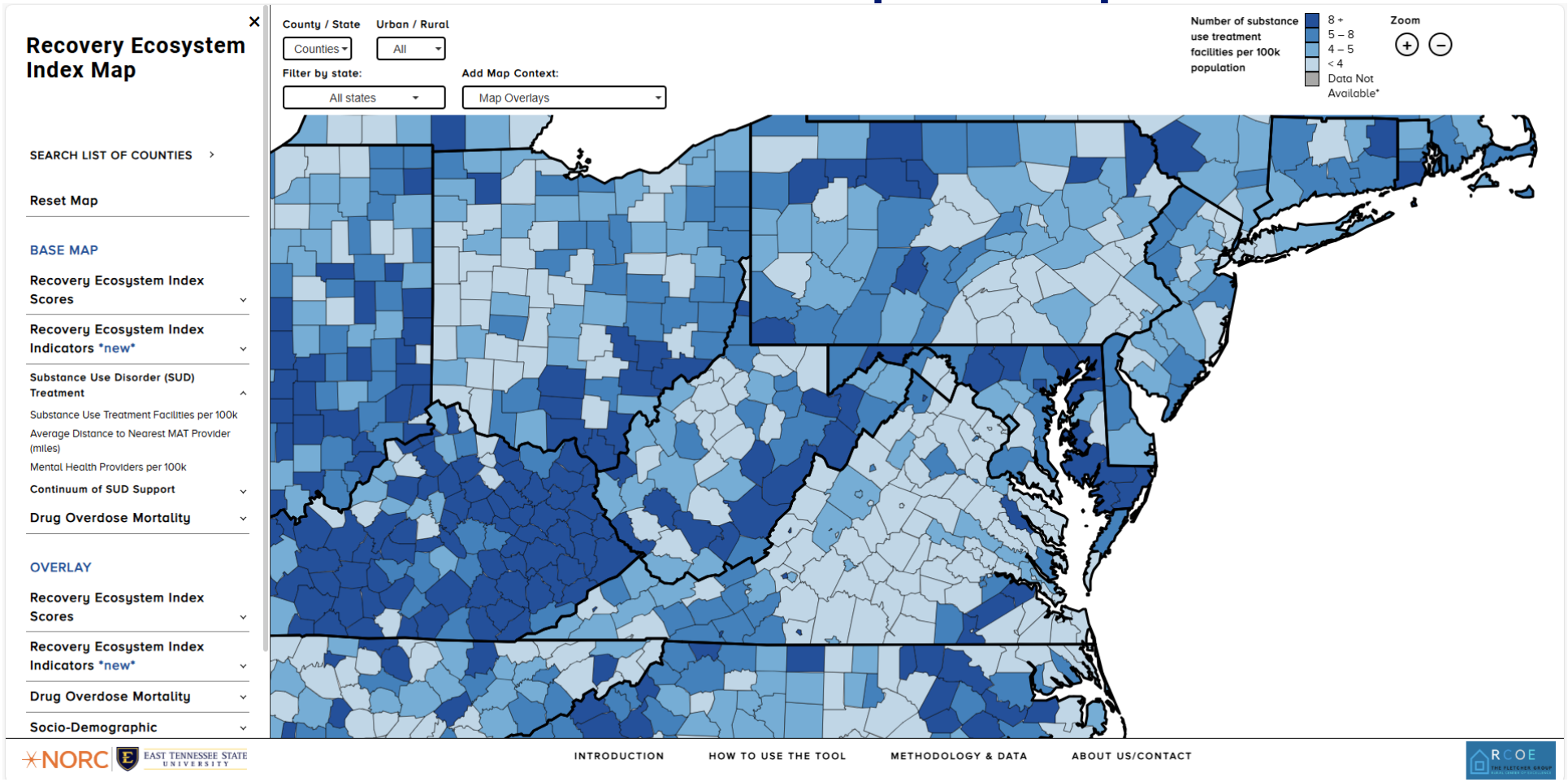
Overview of Mapping Tool – Resource Mapping: SUD Treatment per Capita



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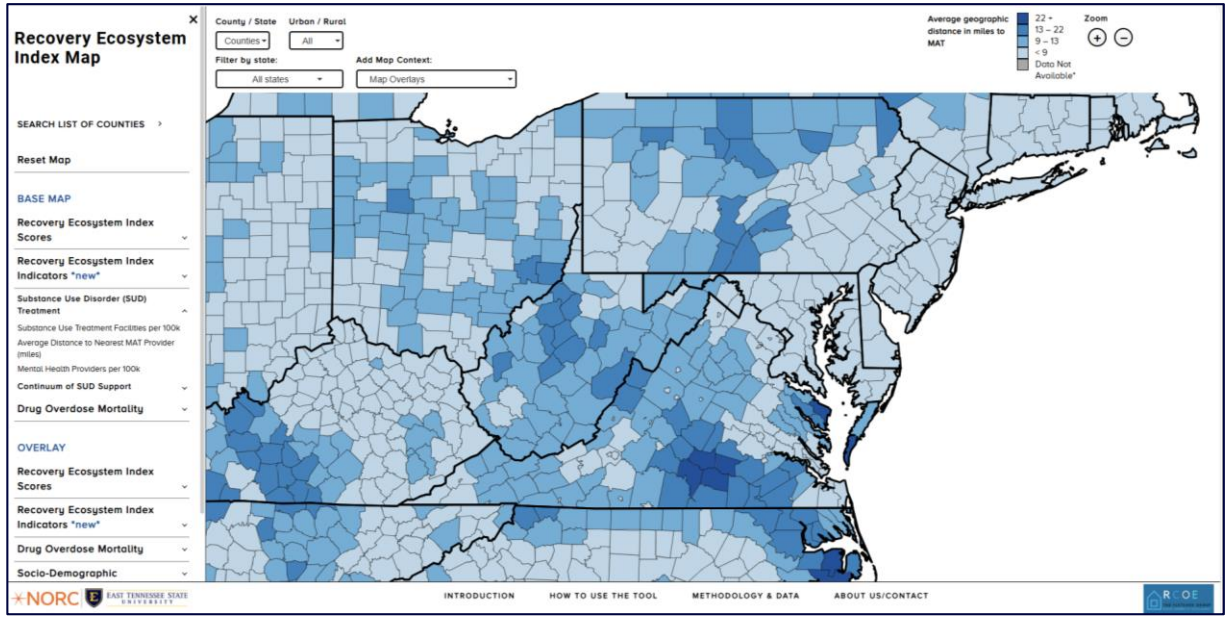
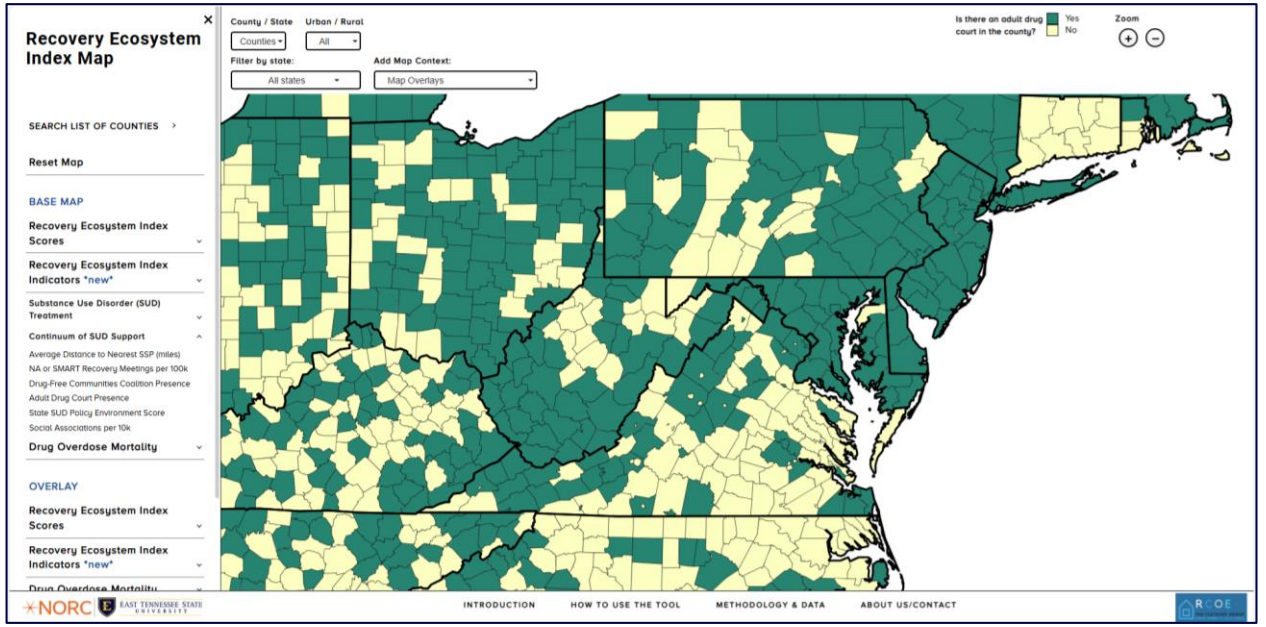
Overview of Mapping Tool – Resource Mapping

Distance to SSP



Availability of Drug Court



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Download Data

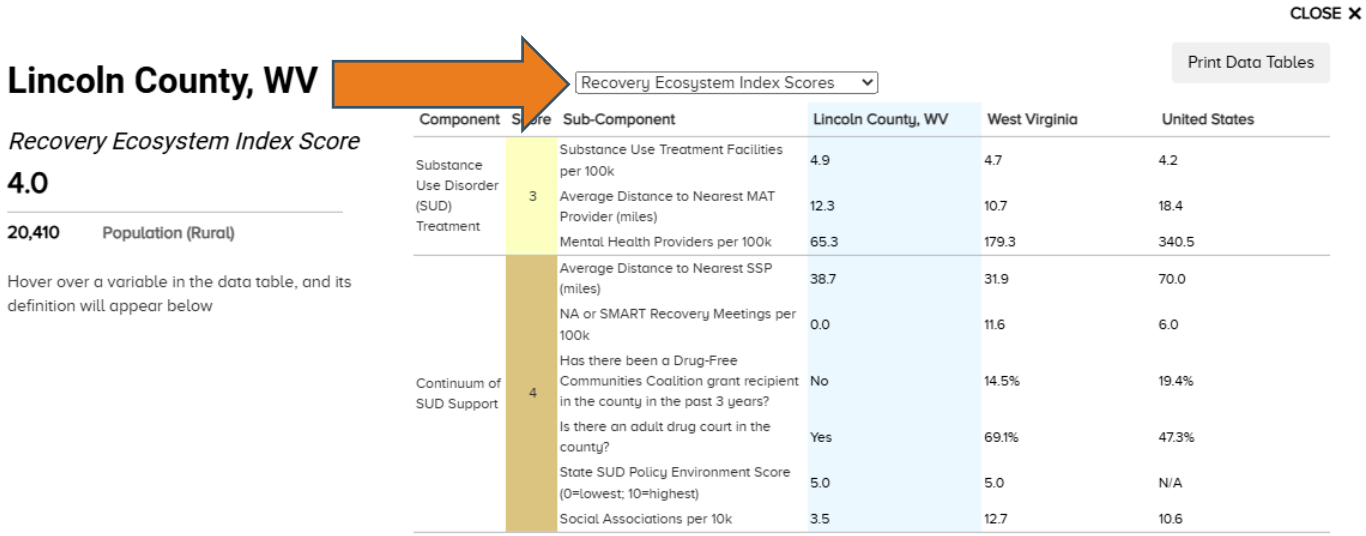
- Users can download an Excel file of the raw data within the tool at the **Methodology & Data** tab

Step 3: Start Discussions about Recovery Ecosystems with Local Partners

The data and recovery ecosystem score and sub-scores from the tool can be used to start and guide community discussions with local partners.

Users can choose between four data tables, using the 'Select data table' drop-down menu on the county fact sheet:

1. Recovery Ecosystem Index
2. Drug Overdose Mortality
3. Socio-Demographic
4. Economic



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Lincoln County, WV

Recovery Ecosystem Index Score

4.0

20,410 Population (Rural)

Hover over a variable in the data table, and its definition will appear below

Recovery Ecosystem Index Scores

Print Data Tables

Component	Score	Sub-Component	Lincoln County, WV	West Virginia	United States
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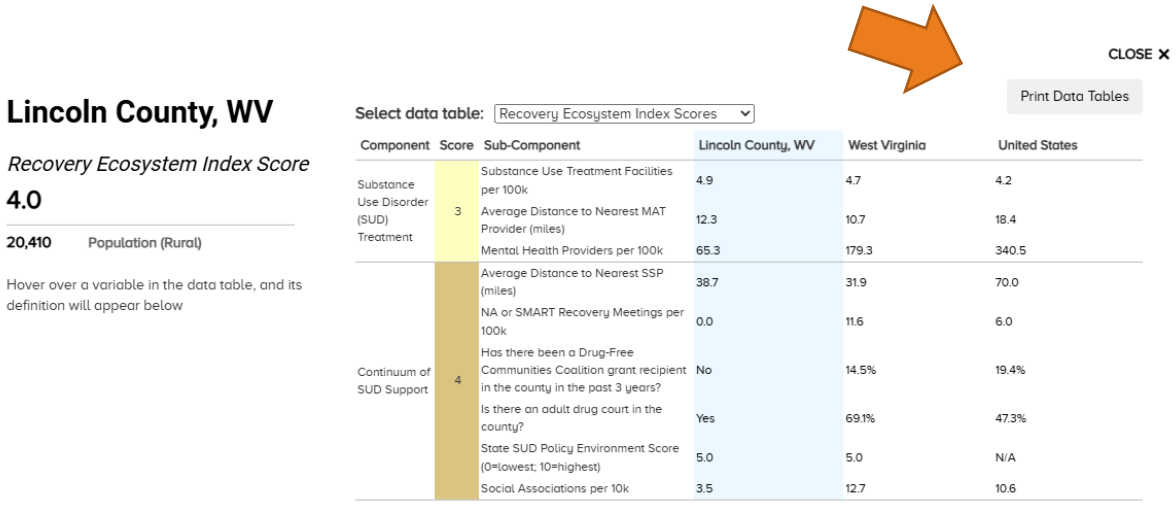
Step 3: Start Discussions about Recovery Ecosystems with Local Partners

- The data tables can be circulated to local partners to guide discussions about available resources and contextual information for your community.
- Relevant questions may be:
  - Where are the gaps in our community?
  - What do we want more data on? What data do we have access to for our local community related to the recovery ecosystem?
    - What additional data are available for our local community?
  - How can we strengthen our recovery ecosystem?
  - Who should we involve when strengthening our recovery ecosystem?
  - What are the other factors present in our community that may impact our recovery ecosystem?

Step 3: Start Discussions about Recovery Ecosystems with Local Partners

- Users can print out data tables of the county fact sheet by clicking ‘Print Data Tables’ in the upper right corner.



Lincoln County, WV

Recovery Ecosystem Index Score

4.0

20,410 Population (Rural)

Hover over a variable in the data table, and its definition will appear below

CLOSE ×

Print Data Tables

Select data table: Recovery Ecosystem Index Scores

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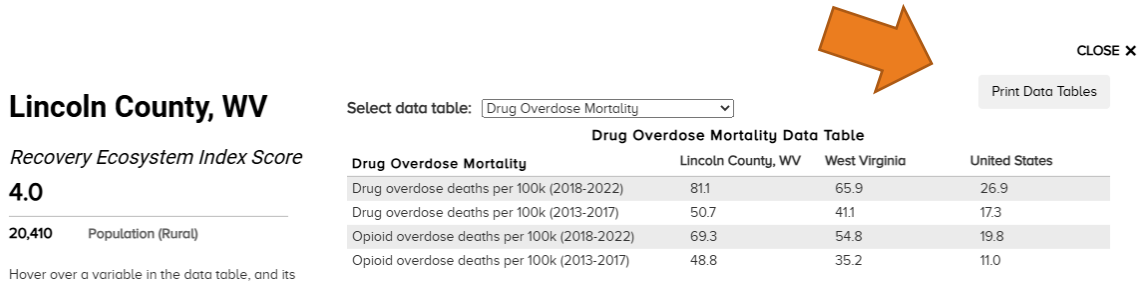

Lincoln County, WV

Recovery Ecosystem Index Score

4.0

20,410 Population (Rural)

Hover over a variable in the data table, and its definition will appear below

CLOSE ×

Print Data Tables

Select data table: Drug Overdose Mortality

Drug Overdose Mortality Data Table

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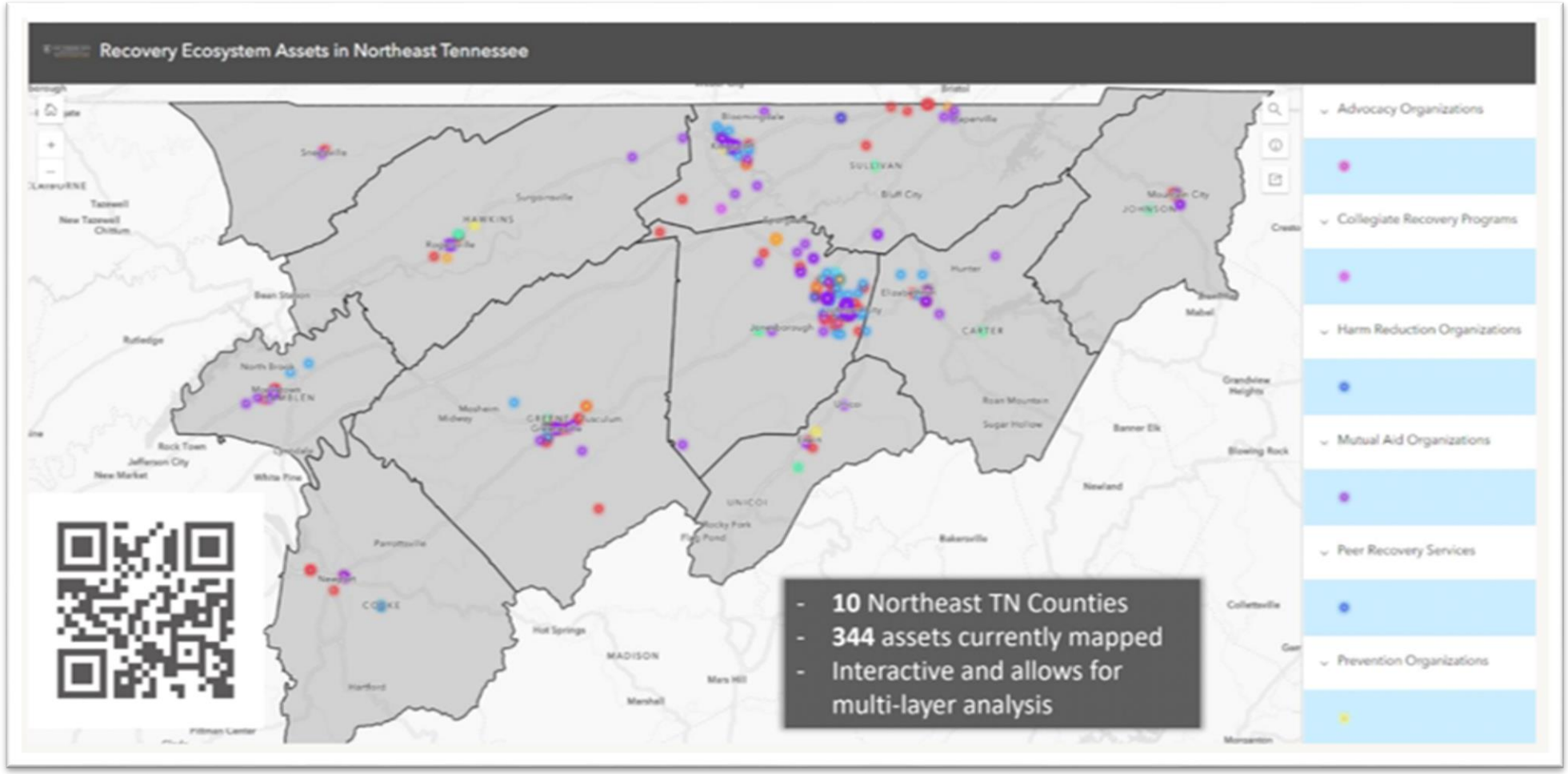
Step 4: Identify Local Data

The information and data in the tool can be supplemented with local data to further assess gaps and growth areas.

- The information and data in the tool can be supplemented with local data to fill gaps, provide more granular information, assess ecosystem strengths, and allow further assessment of gaps and growth areas.

Step 4: Identify Local Data



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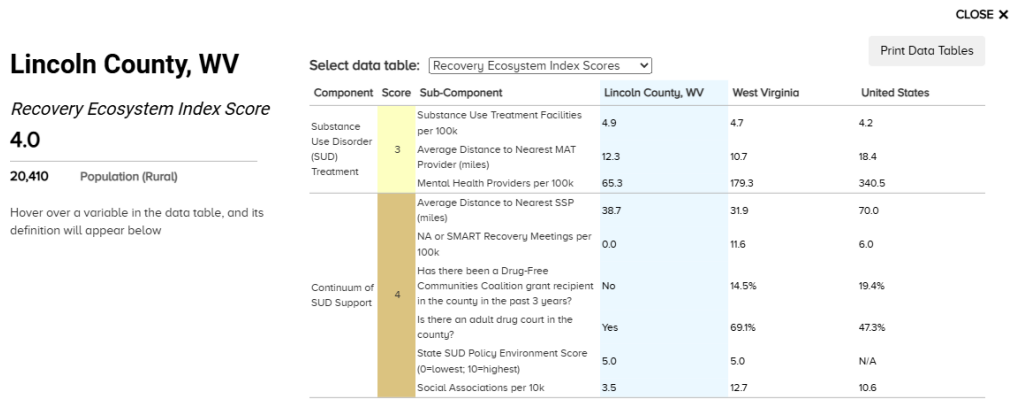
Step 5: Assess Growth Areas and Gaps

Users can utilize the county-level fact sheets to assess current strengths and growth areas within the three sub-components of the Recovery Ecosystem Index, as well as compare current resources in their county with averages at the state and national levels.

- The index is broken down into two components that impact the strength of a recovery ecosystem: SUD Treatment and Continuum of SUD Support.
- The Recovery Ecosystem Index subcomponent scores and data, as well as the accompanying policy data can be leveraged to determine priority areas for counties.



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Lincoln County, WV

Recovery Ecosystem Index Score

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20,410 Population (Rural)

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Step 5: Assess Growth Areas and Gaps

- County fact sheets also include a summary of state policies that comprise the policy environment score.

State Policies:

Note: Some policy information may be outdated. Please review the Methodology & Data Sources page for more information on the source for each policy and the year the data were most recently updated.

Policy	West Virginia
Does the law provide protection from probation or parole violations?	Yes (W. Va. Code Sec. 16-47-4(g)) (W. Va. Code 16-47-5)
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Does the state have an approved Medicaid State Plan Amendment to facilitate the provision of MOUD?	No
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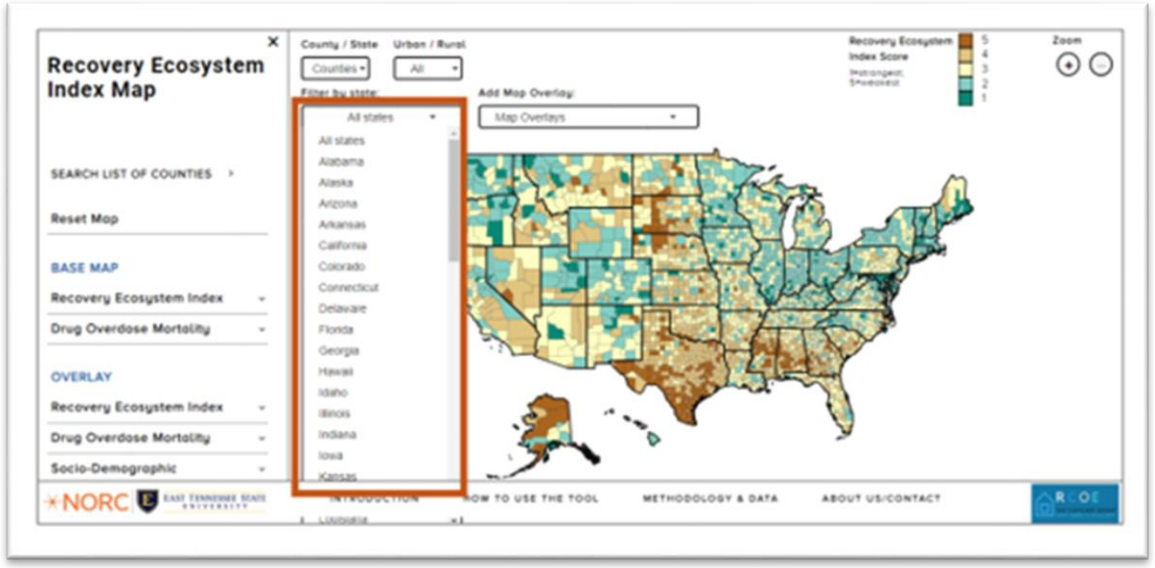
Does state law allow for the operation of syringe service programs (SSPs)?	Yes (W. Va. Code § 47-19-3. Drug paraphernalia defined; W. Va. Code § 60A-4-403a. Prohibition of illegal drug paraphernalia businesses; definitions; places deemed common and public nuisances; abatement; suit to abate nuisances; injunction; search warrants; forfeiture of property; penalties; W. Va. Code, § 16-64-1; W. Va. Code, § 16-64-2)
Does state law allow for the possession of syringes by SSP participants?	Yes (W. Va. Code § 60A-4-403a. Prohibition of illegal drug paraphernalia businesses; definitions; places deemed common and public nuisances; abatement; suit to abate nuisances; injunction; search warrants; forfeiture of property; penalties; W. Va. Code, § 16-64-8. Immunity)

Step 6: Communicate Needs to Policymakers

The data tables available from the county fact sheet page can be used as printed sheets to hand to policymakers. Users can additionally utilize the map to visually show how their county compares to others within the state.

- To visually compare a county with others in the state, users can filter to their state in the ‘Filter by state’ drop-down menu.



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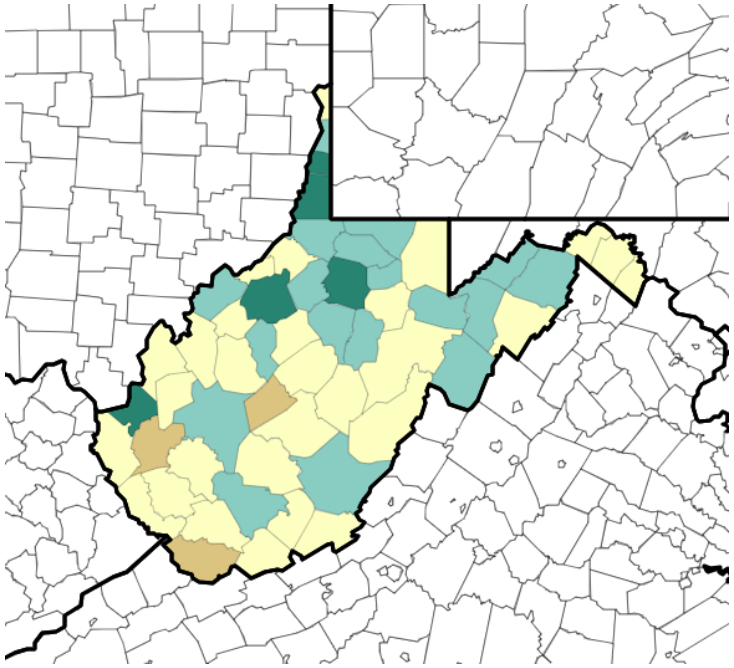
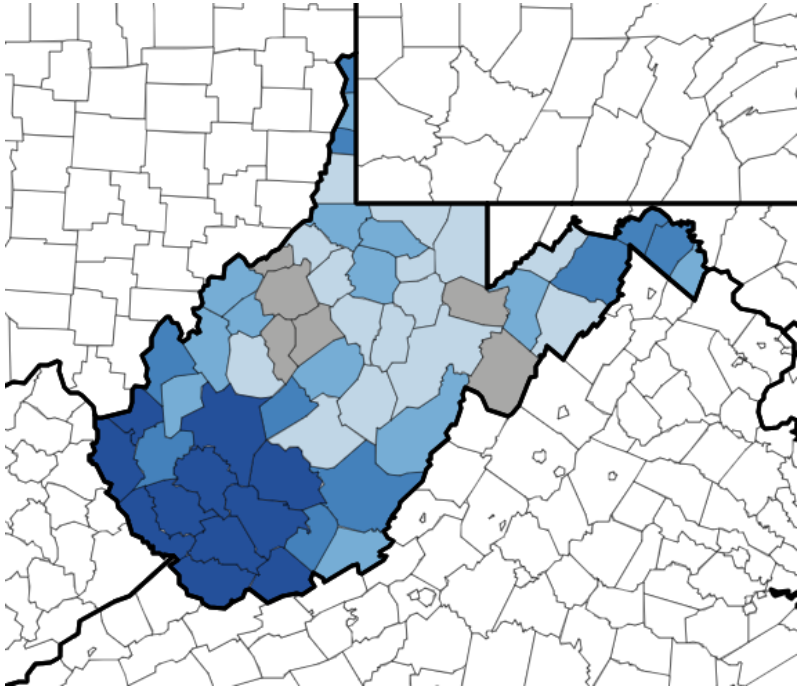
Step 6: Communicate Needs to Policymakers

Recovery Ecosystem Index



Drug Overdose Mortality



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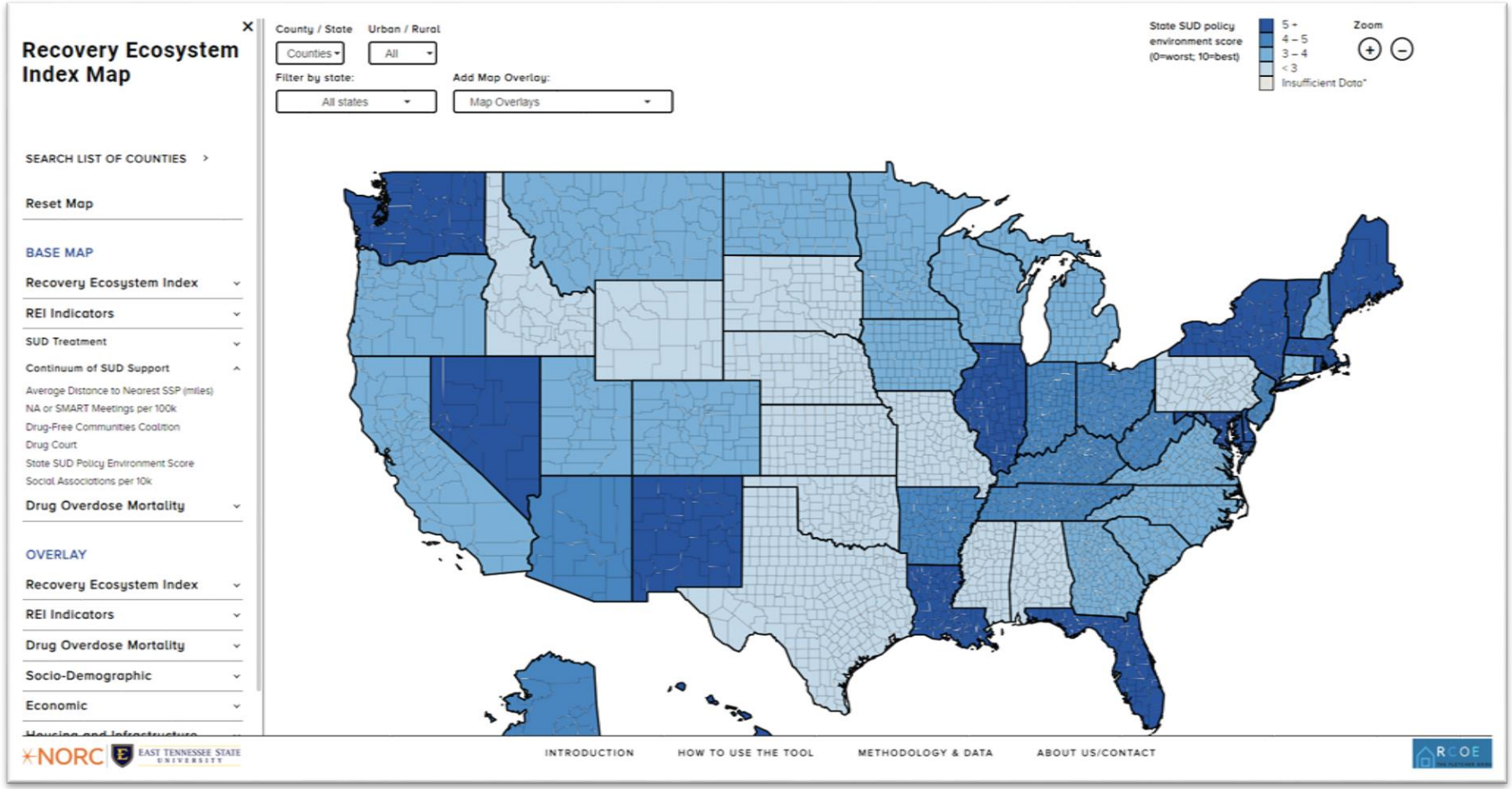
Step 6: Communicate Needs to Policymakers



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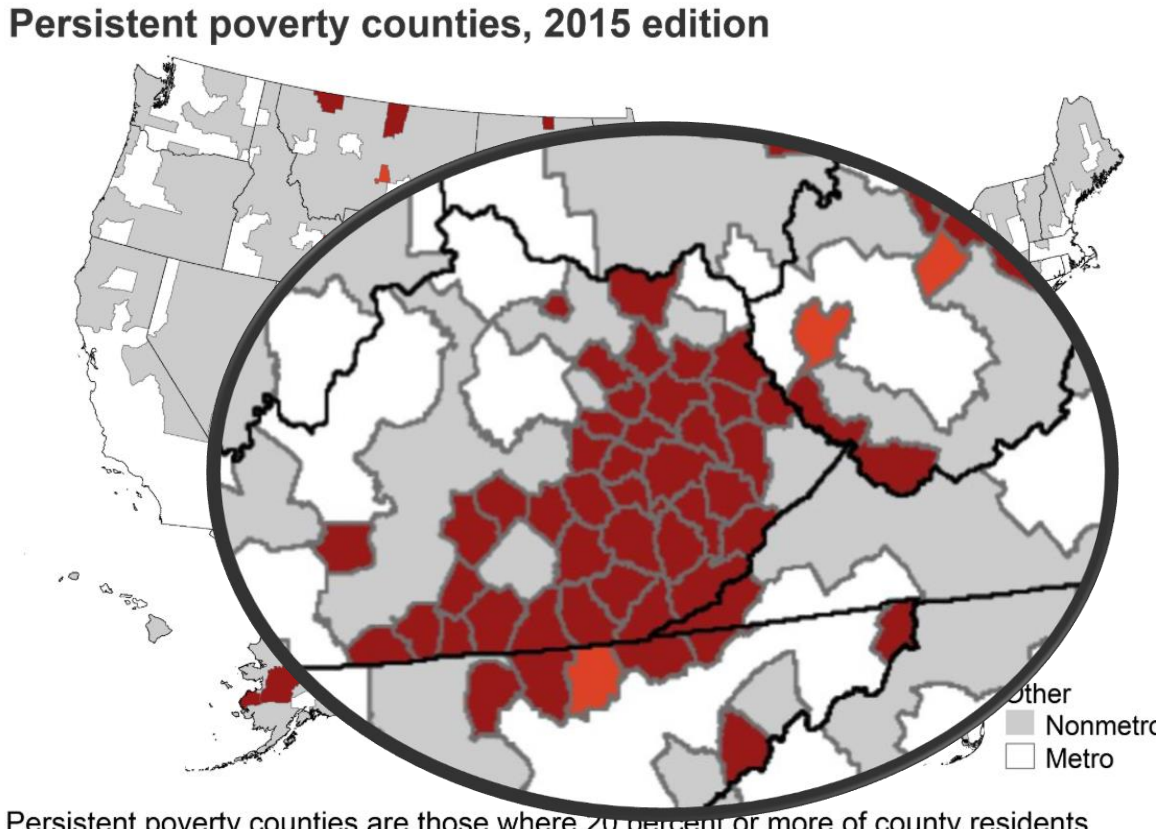
Recovery Ecosystems:
A Real-World Example

Recovery Ecosystems: A Real-World Example



Persistent poverty counties are those where 20 percent or more of county residents were poor, measured by the 1980, 1990, 2000 censuses, and the 2007-11 American Community Survey.
Note that county boundaries are drawn for the persistent poverty counties only.
Source: USDA, Economic Research Service using data from U.S. Census Bureau.

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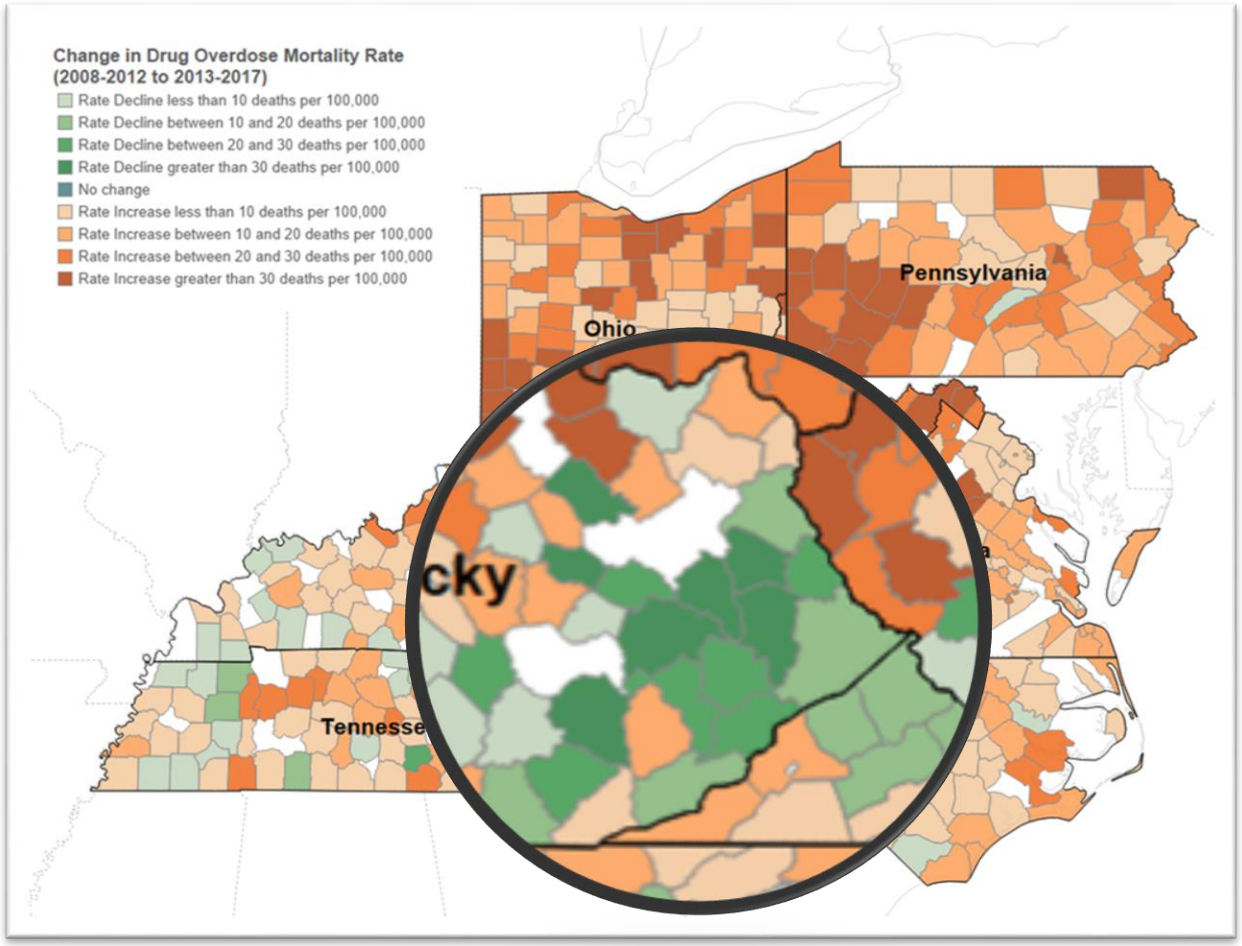
Recovery Ecosystems: A Real-World Example



- Between 2008-2012 and 2013-2017, counties in Eastern Kentucky represented 8 of the 10 counties nationally with the greatest decline in drug overdose mortality, among the population aged 15 to 64 years old.

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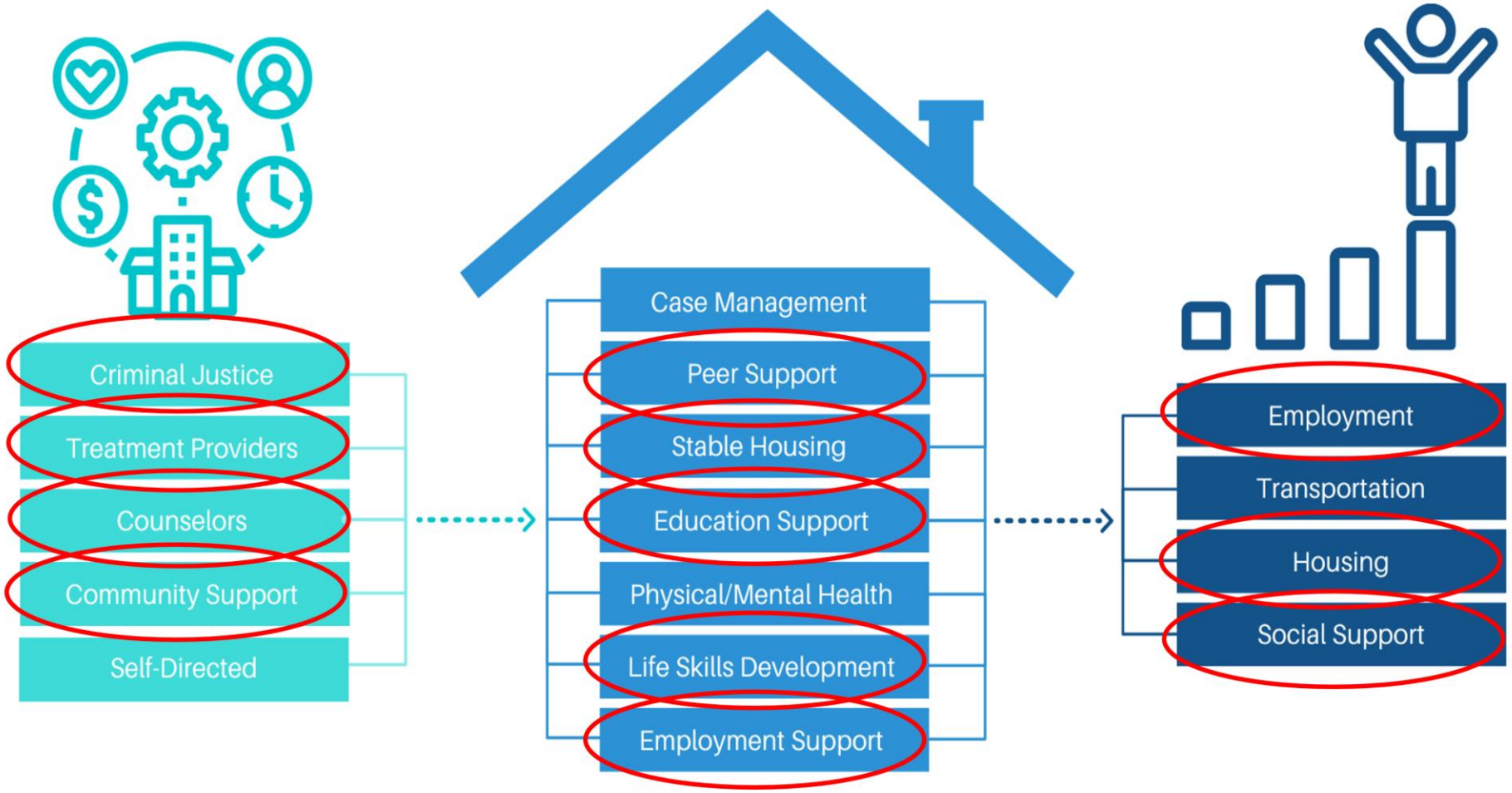
Recovery Ecosystems: A Real-World Example

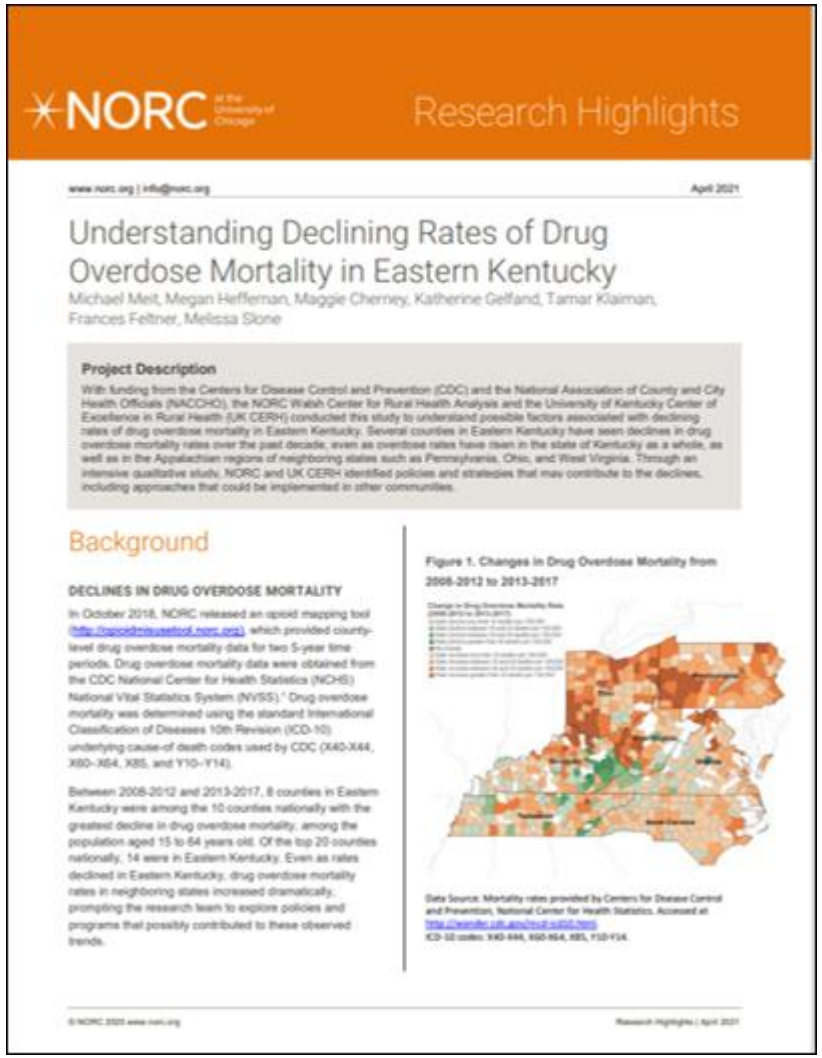
County	Drug Overdose Mortality Rate (2013-2017) ^	Decline in Drug Overdose Mortality Rate between 2013-2017 and 2008-2012
Clay County	29.5 deaths per 100,000	-52.2 deaths per 100,000
Johnson County	38.8 deaths per 100,000	-49.7 deaths per 100,000
Floyd County	73.8 deaths per 100,000	-34.0 deaths per 100,000
Magoffin County	35.6 deaths per 100,000*	-32.8 deaths per 100,000
Breathitt County	46.4 deaths per 100,000	-32.0 deaths per 100,000
Bath County	44.2 deaths per 100,000*	-30.7 deaths per 100,000
Powell County	70.1 deaths per 100,000	-30.4 deaths per 100,000
Letcher County	46.3 deaths per 100,000	-28.8 deaths per 100,000

Themes contributing to declines in overdose mortality in Eastern Kentucky:

- Increased access to treatment
  - 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 a longstanding commitment to addressing substance use
- Primary prevention and education
- Shifts in drug use patterns


Criminal Justice
Treatment Providers
Counselors
Community Support
Self-Directed
Case Management
Peer Support
Stable Housing
Education Support
Physical/Mental Health
Life Skills Development
Employment Support
Employment
Transportation
Housing
Social Support

DECLINING OVERDOSE MORTALITY IN EASTERN KENTUCKY



NORC at the University of Chicago

Research Highlights

www.norc.org | info@norc.org

April 2021

Understanding Declining Rates of Drug Overdose Mortality in Eastern Kentucky

Michael Meit, Megan Heffernan, Maggie Cherney, Katherine Gelfand, Tamar Klaiman, Frances Feltner, Melissa Slone

Project Description

With funding from the Centers for Disease Control and Prevention (CDC) and the National Association of County and City Health Officials (NACCHO), the NORC Walsh Center for Rural Health Analysis and the University of Kentucky Center of Excellence in Rural Health (UK CERH) conducted this study to understand possible factors associated with declining rates of drug overdose mortality in Eastern Kentucky. Several counties in Eastern Kentucky have seen declines in drug overdose mortality rates over the past decade, even as overdose rates have risen in the state of Kentucky as a whole, as well as in the Appalachian regions of neighboring states such as Pennsylvania, Ohio, and West Virginia. Through an intensive qualitative study, NORC and UK CERH identified policies and strategies that may contribute to the declines, including approaches that could be implemented in other communities.

Background

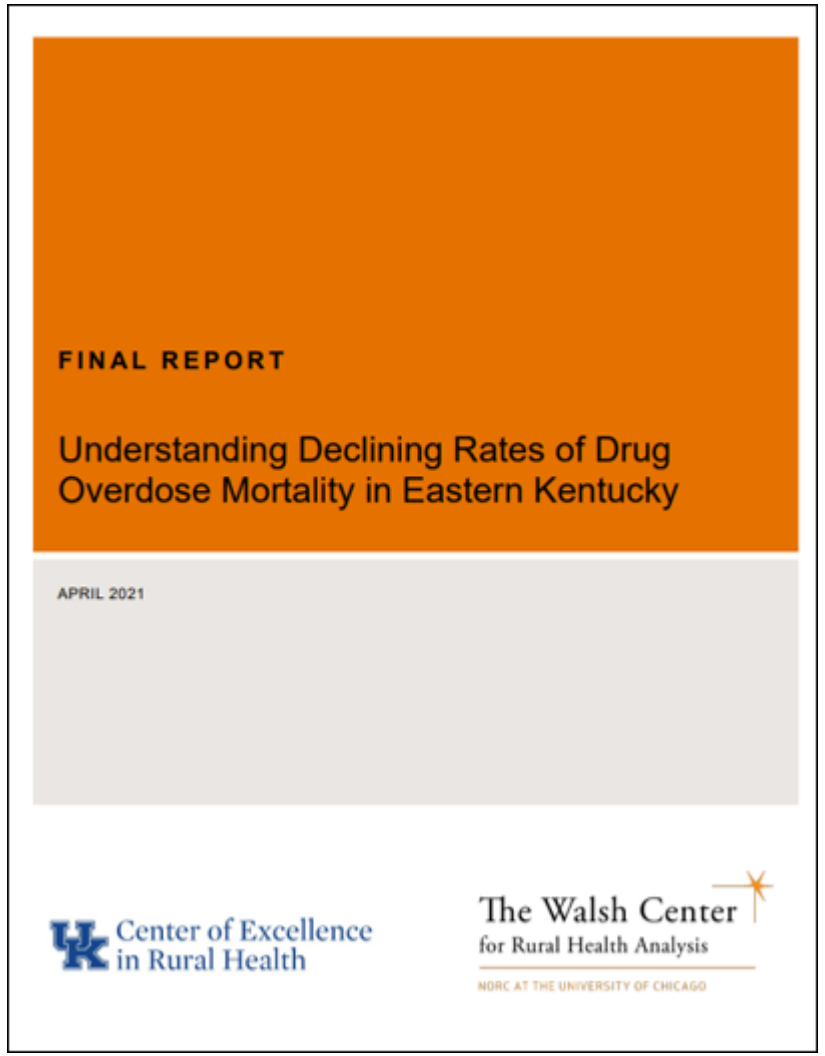
DECLINES IN DRUG OVERDOSE MORTALITY

In October 2018, NORC released an opioid mapping tool (http://opioidmisusetool.norc.org), which provided county-level drug overdose mortality data for two 5-year time periods. Drug overdose mortality data were obtained from the CDC National Center for Health Statistics (NCHS) National Vital Statistics System (NVSS).* Drug overdose mortality was determined using the standard International Classification of Diseases 10th Revision (ICD-10) underlying cause-of death codes used by CDC (X40-X44, X60–X64, X85, and Y10–Y14).

Between 2008-2012 and 2013-2017, 8 counties in Eastern Kentucky were among the 10 counties nationally with the greatest decline in drug overdose mortality, among the population aged 15 to 64 years old. Of the top 20 counties nationally, 14 were in Eastern Kentucky. Even as rates declined in Eastern Kentucky, drug overdose mortality rates in neighboring states increased dramatically, prompting the research team to explore policies and programs that possibly contributed to these observed trends.

Figure 1. Changes in Drug Overdose Mortality from 2008-2012 to 2013-2017

Data Source: Mortality rates provided by Centers for Disease Control and Prevention, National Center for Health Statistics. Accessed at http://wonder.cdc.gov/mcd-icd10.html
ICD-10 codes: X40-X44, X60-X64, X85, Y10-Y14.



FINAL REPORT

Understanding Declining Rates of Drug Overdose Mortality in Eastern Kentucky

APRIL 2021

Center of Excellence in Rural Health

The Walsh Center for Rural Health Analysis

NORC AT THE UNIVERSITY OF CHICAGO

NORC Walsh Center FOR RURAL HEALTH ANALYSIS

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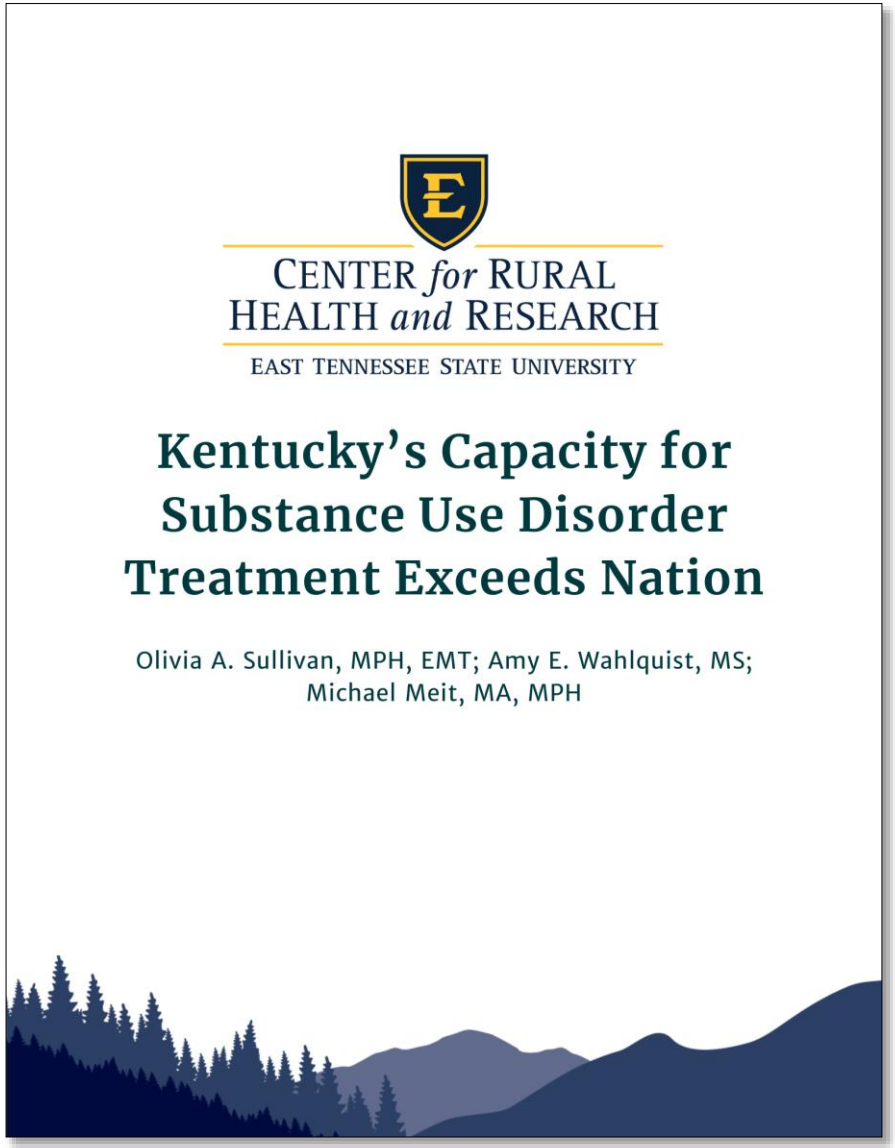

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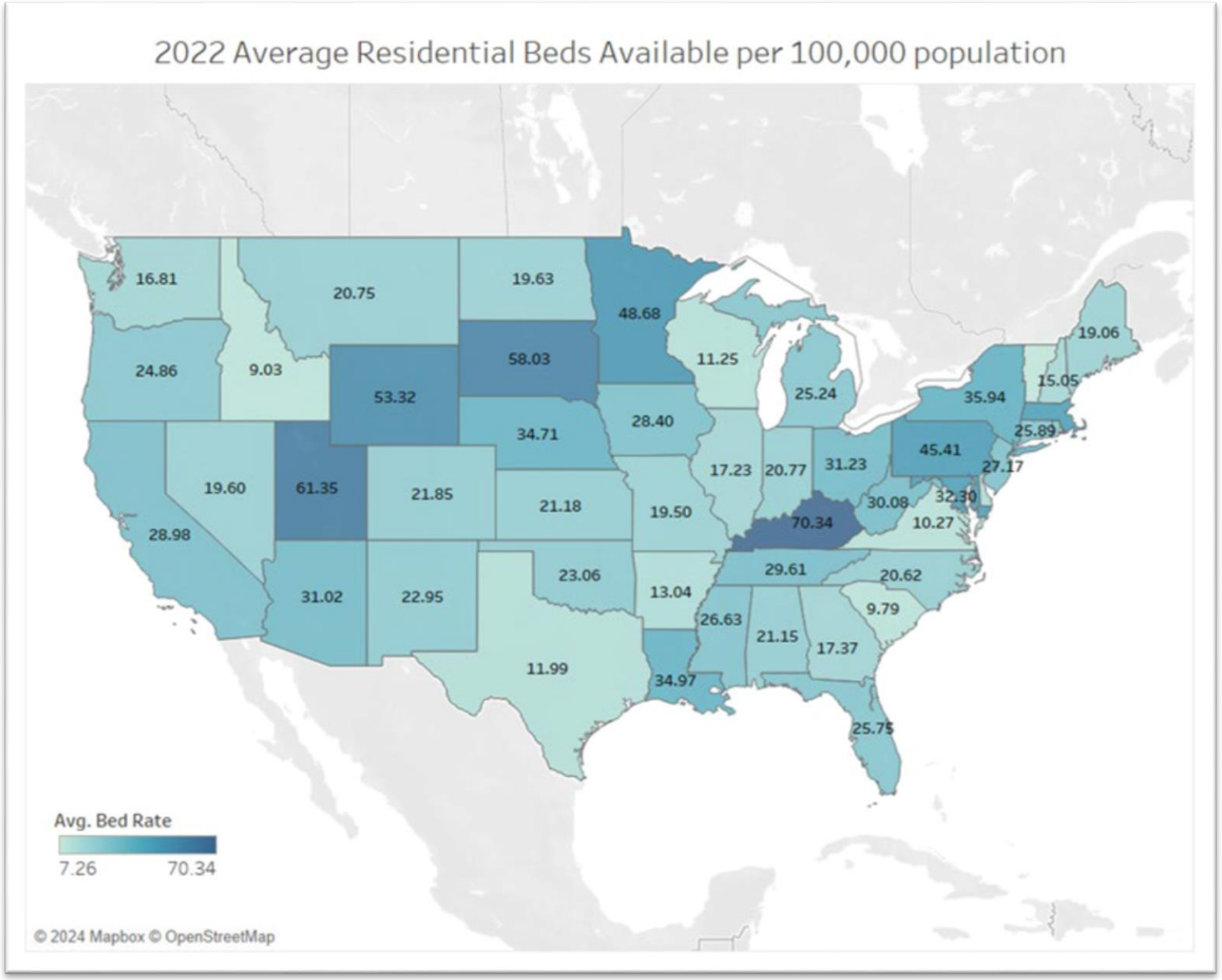

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