# Plenary Session 1: Using Data to Understand Community Context

Moderator: Mallory O'Brien, Johns Hopkins University



# Panelists

- DJ Gering, Centers for Disease Control and Prevention (CDC) Foundation, Kansas
- Sonia Berdahl, CDC
- Josh Eyer, Southern Regional Drug Data Research Center, Institute of Data & Analytics, Culverhouse College of Business, University of Alabama
- Laura Kollar, CDC



# Bridging the Gap: Social Determinants in Overdose Fatality Review

2024 National Forum on Overdose Fatality Review



Funded by the Office of National Drug Control Policy and the Centers for Disease Control and Prevention

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# Federal Acknowledgement

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# What Is the Overdose Response Strategy (ORS)?

The Overdose Response Strategy is an unprecedented and unique collaboration between public health and public safety, created to help local communities reduce drug overdoses and save lives by sharing timely data, pertinent intelligence, and innovative strategies.



Visit us at ORSprogram.org!

# **ORS Mission Statement**

The mission of the Overdose Response Strategy is to help communities reduce fatal and nonfatal drug overdoses by connecting public health and public safety agencies, sharing information, and supporting evidence-based interventions.

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# Overdose Fatality Review (OFR)



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### Expected Outcomes by Adding Social Determinants of Health and Equity Information

- Learn which social determinants of health indicators contribute to the risks of a fatal overdose
- Address a lack of access to treatment and recovery support systems
- Provide necessary data to justify decisions and allocate appropriate resources
- Identify upstream needs to prevent overdose

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#### **Overdose Fatality Review Equity Tool**



Add Sites to the Map Home Page Resources Notes MAT Providers for OFR Tool Harm Reduction Sites Adding MAT providers through this survey will make the provider's location visible on the This survey is to add locations of free harm reduction supplies to the Overdose Fatality Review Overdose Fatality Review tool's map. Tool map. To import in bulk, contact DJ Gering at dgering@cdcfoundation.org Provide the necessary information below to add the sites for inclusion to the naloxone layer. If you need to bulk import, contact DJ Gering at dgering@cdcfoundation.org for more information. **Provider First Name** Name of Organization\* **Provider Last Name** Type of Harm Reduction Supplies Provided Select all that apply **Organization's Name** Condoms Fentanyl Test Strips Provider's Address\*

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**OVERDOSE RESPONSE STRATEGY** 



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Source: American Community Survey (2017-2021), Applied Geographic Solutions (2023), Esri (2023), MRI Simmons (2023)

OVERDOSE RESPONSE STRATEGY

15 minute walk ~

OFR Infographic

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OVERDOSE RESPONSE STRATEGY

# **Cumulative View**



**OVERDOSE RESPONSE STRATEGY** 

#### **Resources:**

- Medication Assisted Treatment (MAT) Provider: 1.84 miles
- Health Department: 0.84 mile Federally Qualified Health Center: 3.32 miles
- Naloxone: 0.84 mile
- Substance Use Resources: 0.56 mile Mental Health: 0.94 mile

### Within a 15-minute walk:

Residential Treatment (male only)

Additional resources within a 20-minute walk:

Mental Health Health Department

# What System Changes Are Needed?

- More upstream approaches
  - Neighborhood-based programming that is culturally relevant to the area
- Addressing root causes
  - Uplifting individuals by navigating the environmental factors that increase the risk of substance use and overdose
- Engagement
  - Empowering disadvantaged communities through the civic engagement process to advocate for policy changes

# Limitations on Use

- The infographic feature requires an ArcGIS Community Analyst or Business Analyst subscription
  - Working on a census tract-level infographic for communities that do not have ArcGIS tools
- Analysis function requires an ArcGIS Online or Pro account

# **Contact Information**



DJ Gering, MA Public Health Analyst CDC Foundation dgering@midwest-hidta.gov



LinkedIn

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### Establishing a Shared Understanding Across Sectors to Prevent Overdose

Sonia Berdahl

# DEVELOPING A SHARED UNDERSTANDING

### **Overdose Topics**

### Community Context

### Partners



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# **COLLABORATIVE DATA SHARING AND USE**



### **Community Context**

Fatal and non-fatal overdose rates

Available harm reduction services

Number of treatment beds available and clinicians who prescribe MOUD

Social determinants of health

Good Samaritan policies

Tourism or major local events

Substance-use related 911 calls and EMS responses

Community naloxone saturation

Deflection & diversion programs

Emerging drug supply trends

- Overdose indicators and risk factors
- Policies
- Services and gaps
- Other



### **PHAST Data Inventory Table**

Key Investigation Question	How is this information	Who (name/agency)	If data are available	data are If data are unavailable ble		Additional questions	Possible data sources to consider	
	typically used?	has the data to answer this question?	How will this data be shared with PHAST?	List potential data sources to explore	Current status or updates			
What is the opioid- involved overdose death rate in our jurisdiction?	To track cases of overdose death longitudinally	Example: Chief Lee from City Fire Department	Example: Chief Lee will present annual and monthly data at each PHAST meeting using simple data presentation.			Example: Is it possible to examine data by age group?	Confirmed: State Unintentional Drug Overdose Reporting System (SUDORS), which captures detailed information on toxicology, death scene investigations, route of administration, and other risk factors that may be associated with a fatal overdose Local and state health departments Provisional: National Vital Statistics System (provisional counts for drug overdose deaths occurring within the 50 states and the District of Columbia.) The counts represent the number of reported deaths due to drug overdose occurring in the 12-month period ending in the month indicated.	



Indicator	Dispatches and/or 911 Calls					
Key Investigation Question	2,3					
Stratification	Geography (county, zip code, or census tract)					
	Demographics (age, race, ethnicity, and sex)					
	Transport vs. Refusal to transport					
Definition	Number of overdose- or drug-related dispatches (can be a percent of all EMS dispatches)					
Suggested Use	This can be used as an indicator of where, when, and among whom overdoses have occurred in a community.					
Reporting Frequency	Weekly or monthly					
Rationale or Why We Care about this Data	This is an indicator of 1) the worsening or improvement of the crisis during a designated time period, and 2) how first responders are engaged in preventing fatal overdoses.					
	If available, transports to the hospital and the disposition of the individuals in emergency situations can also be reported to communicate the number of lives saved. This may assist in the development of more timely emergency response interventions.					
Suggestions for Securing Data	Partner with local first responder agencies (fire department, police department, and EMS) or a local or state government agency that manages EMS.					
	ODMAP (Overdose Detection Mapping Application Program) provides near real- time suspected overdose surveillance data for jurisdictions. Go to <u>http://www.odmap.org/#agency</u> to see if there is a participating agency in your jurisdiction.					
Possible Data	Municipal EMS, police, and fire departments					
Sources	Local state/health departments that may have an existing relationship with EMS agencies or other state agencies that have provided this data					
Data Owners	Municipal EMS agencies					
	Local or state health department					
Suggestions & Limitations in Interpreting this Data	Not all drug-related EMS dispatches/911 calls will be related to opioid overdoses. However, they can be a good approximation of where, when, and among whom overdoses have occurred. Sometimes there is available disposition data or notes from the scene that may be useful for epidemiological or prevention purposes (i.e., person thought he/she was using cocaine but it was laced with fentanyl, person was arrested upon EMS arrival or after transport to the hospital, or naloxone was used as a way to rule-out an opioid overdose.)					
	Certain demographics may not be included, such as race and ethnicity					

Number of Overdose- (or Drug-) Related Emergency Medical Service (EMS

### PHAST Supplemental Resource: Basic Drug Use Epidemiology Guide

The Epi Guide provides an overview of key overdose and substance-use indicators; key data investigation questions; suggestions on how to secure, analyze, and stratify data; possible data sources; examples; and references.



Designed PHAST-Epi-Guide 9.22.2022.pdf

### CDC and CDC Foundation Overdose Prevention Indicators Project

This project aims to:

- Identify indicators to evaluate the impact of overdose prevention work in a standardized way.
- 2. Develop a toolkit that includes resources and training materials to support users' ability to collect, monitor, and evaluate overdose indicators and use the data for program improvement.

Which of the following data sources does your health department currently have access to? (State and local combined, N=85)

#### Most common

- Coroner or medical examiner data (80%)
- Emergency Department surveillance data (75%)
- Vital records (74%)
- Naloxone dispensing or distribution data (73%)

#### Least common

- Electronic health record data (30%)
- Other survey data (27%)
- Court system data (21%)
- Jail or prison recovery programs data (20%)



Email: opindicators@cdcfoundation.org with questions

# **EXISTING DATA RESOURCES**

Publicly available national data sets to consider while developing community context



### CDC: Nonfatal and Fatal Overdose Dashboards DOSE & SUDORS



Public Health and Safety Team



#### Percentages<sup>9</sup> of overdose deaths involving select drugs and drug classes in 2022, *Overall (30 jurisdictions)*

81.8% of deaths involved at least one opioid and 57.1% involved at least one stimulant. Illegally-made fentanyls were the most commonly involved opioids. The most common stimulant involved in overdose deaths was cocaine.



<u>SUDORS Dashboard: Fatal Overdose Data | Drug Overdose | CDC Injury Center</u> DOSE Dashboard: Nonfatal Overdose Syndromic Surveillance Data | Drug Overdose | CDC Injury Center

### **National Association of State EMS Data**



#### NONFATAL DRUG OVERDOSE DASHBOARD - NEMSIS

### **Naloxone Finder Databases**



<u>NEXT Naloxone (naloxoneforall.org)</u> <u>Harm Reduction Resources Near You | National Harm Reduction Coalition</u>



### North American Syringe Exchange Network



Public Health and Safety Team

NASEN | North America Syringe Exchange Network: NASEN Directory



#### ODIVIAF Level Z Dashboard v22

a project of the Washington/Baltimore HIDTA



#### **CDC/ATSDR SVI Themes**



Household Characteristics

Lowest

(Bottom 4th)

Lowest

(Bottom 4th)





### **Social Vulnerability Index**



#### Explore the CDC/ATSDR SVI Interactive Map



Maps show the range of vulnerability in Fulton County, Georgia for the four themes

#### CDC/ATSDR Social Vulnerability Index (SVI)



# **Existing Services and Gaps**

Voices of lived and living experiences are critical to developing a shared understanding



### PHAST Supplemental Resource: Participatory Methods Matrix & Activity

Participatory Method Name	Level of Complexity	Facilitation Considerations	Description of Participatory Method	Examples of Public Health and Safety-Specific Objectives this Method Could Address	Participatory Features	Resources Required	STORYTELLING
Participatory Methods for Data Gathering							COMMUNII
Storytelling	Low	This is an accessible, low- tech, and easy to implement exercise. Moderators should be careful to keep the discussion at an impersonal level and focused on photos or visual prompts.	Storytelling is a tool that can be used to understand how people think about and understand a certain topic without getting into their personal stories. Photos may be used as prompts to guide the discussion. Participants are asked to tell a story about what is happening in the photo or other visual prompt, as well as to share other	<ol> <li>Understand typical beliefs, norms, or stigmas surrounding drug use among a community.</li> <li>Understand attitudes towards public health or public safety personnel.</li> <li>Identify the language used to describe various beliefs or processes.</li> </ol>	Storytelling is an interactive process that can engage community members in dialogue and data gathering efforts, as it is fairly unstructured. It centers the knowledge and understanding of community voices.	<ul> <li>People with lived experience/ members of affected communities</li> <li>Moderator</li> <li>Facilitation guide/ script</li> <li>Visual prompts</li> <li>Note-takers or resources to record and transcribe conversations</li> </ul>	CAPACIT INVENTORIE COMMUNIT CONVERSATION
			reactions.				RISK RANKING



<u>Participatory-Data-Methods-Matrix-Activity-1.PDF (naccho.org)</u>

### **Key Takeaways**

- Shared understanding is developed through learning about overdose, our community, and our partners.
- Community context is made up of many factors; incorporate any data that is relevant to your community.
- There are some national data sets that I shared, but there is much more nuanced data available at the state and local level through your partners.
  - Reach out to Overdose Response Team in your state. <u>ORS-Teams (orsprogram.org)</u>
- Consider participatory methods of data collection that are more interactive and engage people with lived experience.





### WWW.PHAST.ORG







The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



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# **SRDDRC** Southern Regional Drug Data Research Center (DDRC)

**Introduction & Overview Regional Drug Intelligence** 

March 5, 2024

Dr. Joshua C. Eyer Director, SR-DDRC Institute of Data & Analytics Culverhouse College of Business University of Alabama

Culverhouse College of Business

# **Site Information**



- County: Tuscaloosa
- City, state: Tuscaloosa, Alabama
- Year started: 2022
- Estimated number of overdose deaths per year: 43,820
- Size of jurisdiction: 17 states
- Funding sources: Bureau of Justice Assistance

### Recommendation



- Greater access to improved drug-data intelligence for a broad group of stakeholders, particularly public safety and public health decision makers
- When recommendation was identified: 2022
- When recommendation was implemented: 2022 and in progress

### Principle Investigators





Jason Parton, PhD Associate Professor & IDA Director Matthew Hudnall, PhD Dwight Lewis, PhD Associate Professor & IDA Associate Professor & Deputy Director IDA Associate Director Jim Cochran, PhD Professor

### Key Personnel









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Trent Gooden, MS IDA Director of Systems & Data Engineering





Amanda Cox, PhD Data Scientist

Zach Cannon, BS IDA Director of Data Management

### Key National Problem: Data Disconnection

- Opioid response efforts must be data-driven
- But <u>opioid data</u> is often:
  - Siloed in different locations
  - Difficult to access
  - Difficult to interconnect
  - Restricted in detail/information
- As a result, limited in value for use



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## Funding

Funding Opportunity (FO) Purpose:

- Develop a drug data research center serving a region of the USA
- Make it accessible
- Teach people how to use it and replicate it



Home / Funding & Awards

### FY 2022 Drug Data Research Center to Combat the Opioid Crisis

Opportunity ID: O-BJA-2022-171350 Solicitation Status: Closed Fiscal Year: 2022 Closing Date: July 18, 2022 Posting Date: May 19, 2022 Solicitation Type: Competitive

Grants.gov Deadline: July 12, 2022, 8:59 pm Eastern Application JustGrants Deadline: July 18, 2022, 8:59 pm Eastern Available Funding

Past Funding

Funding Awards

Successful Applications

NEPA Guidance

Performance Measures



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### **SRDDRC** Overview

The Institute of Data Analytics (IDA) has been tasked with developing an extensible data framework to assist with drug misuse in the Southeast Region of the United States. To do so, we initially established the Southeast Regional Drug Data Research Center (SR-DDRC).

- Funding Agency: United States Department of Justice, Bureau of Justice Assistance
- Award Amount: <u>\$3,536,058</u>
- Initial Service Area: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee







# **Primary Objectives**

- 1. Establish a drug data repository that includes data from the key member states of AL, FL, GA, KY, MS, NC, SC, and TN to produce and disseminate web-based, real-time, actionable multisector drug data.
- 2. Develop resources for other regions proactively wanting to build field knowledge and capacity in drug misuse and abuse by creating a regional DDRC.
- 3. Promote the analytic human capital among stakeholders in the government workforce, community, and other sectors involved in investigations to combat drug misuse and abuse.
- 4. Develop and implement a systemic research protocol for SR-DDRC so that research scholars can conduct policy-relevant analyses using stakeholder data to assist in combating drug misuse and abuse.



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### **DDRC Public Data Structure**



### **Targeted Factors and Variables**

Sources: CDC, National Emergency Medical Services Information System (NEMSIS), Uniform Crime Report (UCR)/National Incident-Based Reporting System (NIBRS), Census, American Community Survey (ACS), etc.

- 1. Demographic Factors (e.g., sex, gender, geographic location)
- 2. Sociodemographic Factors (e.g., education, income)
- 3. Drug-related Medical Data (e.g., relevant diagnoses, treatments)
- 4. Crime Data (e.g., arrests, seizures)
- 5. Health Outcomes (e.g., overdose mortality, documented health events)
- 6. Social Determinants of Health Data (e.g., housing insufficiency, food insufficiency)
- 7. Risk & Protective Factors (e.g., household size, marital status, health insurance)
- 8. Comorbid Health Conditions (e.g., BMI, blood pressure, mental health diagnoses)
- 9. Economic Data (e.g., health care costs, street prices)



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### SOUTHERN REGIONAL DDRC DATA FLOW DIAGRAM



# Levels of Access

- 1. Publicly accessible dashboard and data tables (rigorously deidentified and aggregated)
- 2. DDRC-generated analyses and data tables
- 3. Restricted access datasets (permissions required)

Special Data: Needs analysis and evaluation



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### All Drug Overdose Deaths Total ○ All Drug Overdose Deaths Rate All Drug Overdose Deaths Total Opioid Dispensed Rate Opioid-Related Drug Overdose Deaths ... Opioid-Related Drug Overdose Deaths ... South Carolina Arkansas Louisiana Colorado Mississippi Tennessee

Missouri

New Mexico

County

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Texas

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### DDRC Public Data Website PROTOTYPE



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### DDRC Public Data Website PROTOTYPE



# Metric All Drug Overdose Deaths Rate ^ All Drug Overdose Deaths Rate All Drug Overdose Deaths Total Opioid Dispensed Rate Opioid-Related Drug Overdose Death... Opioid-Related Drug Overdose Death...

Arkansas	Louisiana	South Carolina
Colorado	Mississippi	Tennessee
Florida	Missouri	Texas
Georgia	New Mexico	
ounty		~
All		$\sim$

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### DDRC Public Data Website PROTOTYPE

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### DDRC Public Data Website PROTOTYPE



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### DDRC Public Data Website PROTOTYPE

### Impact

- Unprecedented access to comprehensive data center
- High-value interconnection of multifactor datasets
- New capacity to visualize multistate regions and patterns
- Increased insight through regional data-driven intelligence
- High-level regional strategy network for public sector responses
- Special research opportunities
- Stronger relationships with regional groups and leaders
- New resources for creation of data centers



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Thank you for your attention!

For more information, contact:

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# Laura Kollar

Health Equity Officer/Senior Health Scientist, Division of Overdose Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention

National Forum on Overdose Fatality Review

# Additional Support Available!

National Forum on Overdose Fatality Review

#### OFR Email Exchange

• Great way to network with your peers!

OEP	Toolkits ~	Profiles	Resource Library	Learn ×	Take Action ~	Q
Overdose Fatality Review						

#### **OFR Message Exchange Sign-Up**

The OFR message exchange is a platform for those involved in Overdose Fatality Reviews to engage with one another. Enrollment in this message exchange is by permission only, and the <u>terms of use</u> apply.

The fields marked with the \* are required.

First Name\*

Last Name\*



#### Training and Technical Assistance (TTA) Request

- Expertise is available to support your OFR efforts
- We are here to help you troubleshoot day-to-day challenges as they arise



#### **Training and Technical Assistance Request**

Regardless of funding source, anyone can request OFR training and technical assistance. Expertise is available to support the expansion and development of overdose fatality review (teams) through a variety of formats, including but not limited to:

- Host one-on-one calls to troubleshoot day-to-day challenges
- Identify available resources and materials
- Connect TTA requestor to peers in the field
- Present to team or meeting attendees
- Convene professionals to address a need
- Facilitate virtual meetings and workshops



### OFR Mentor Site Opportunities

National Forum on Overdose Fatality Review

- The purpose of the Overdose Fatality Review (OFR) Mentor Program is to elevate, communicate, and leverage OFR promising practices while building bridges between nascent teams and those with demonstrated success. The OFR Mentor Program provides a unique opportunity to learn the application and practice of OFR from experienced peers
- Interested sites can apply here



#### **Overdose Fatality Review**

#### **Peer Mentor Site Opportunities**

The purpose of the Overdose Fatality Review (OFR) Peer Mentor Program is to elevate, communicate, and leverage OFR best promising practices, while building bridges between nascent teams and those with demonstrated success. The OFR Peer Mentor Program provides a unique opportunity to learn the application and practice of OFR from experienced peers.



#### **OFR Peer Mentee Application**

OFR peer mentor participants are matched to an experienced mentor site program that provides consultation and support through direct communication and a virtual\* OFR site visit, to see first-hand how OFRs work in practice.

A typical OFR mentee experience will include:

- One-hour introductory call at least one week before the OFR virtual site visit
- Two-hour OFR observation
- One-hour post review discussion call at least one week after the OFR virtual site visit
- Facilitated discussions with one or two OFR members as requested by peer mentee
- Feedback to IIR by both mentor and mentee about their experience

(\*Note: In-person virtual site visits are on hold during the COVID-19 response.)

Request a virtual site visit by completing this online form. (http://s.lir.com/OFRSite\_Visit)



