



OFFICE OF THE ATTORNEY GENERAL

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RESPONSE SUBCOMMITTEE

Substance Use Response Group (SURG)

August 6, 2024

11:00 am

1. CALL TO ORDER AND ROLL CALL TO ESTABLISH QUORUM

Chair Kerns

1. Call to Order and Roll Call to Establish Quorum Cont.

Member	SURG Role	Committee Role
Shayla Holmes	Rural Human Services (Lyon County)	Vice Chair
Dr. Terry Kerns	Attorney General Appointee	Chair
Nancy Lindler	SUD Treatment Provider	Member
Christine Payson	Sheriffs' & Chiefs' Assoc.	Member

2. PUBLIC COMMENT

Public Comment

- Public comment will be received via Zoom by raising your hand or unmuting yourself when asked for public comment. Public comment shall be limited to three (3) minutes per person (this is a period devoted to comments by the general public, if any, and discussion of those comments). No action may be taken upon a matter raised during a period devoted to comments by the general public until the matter itself has been specifically included on an agenda as an item upon which action may be taken pursuant to NRS 241.020.
- If you are dialing in from a telephone:
 - Dial 669-444-9171
 - When prompted enter the Meeting ID: 868 3331 1069
 - Please press *6 so the host can prompt you to unmute.

3. REVIEW AND APPROVE MINUTES FROM JUNE 4, 2024 RESPONSE SUBCOMMITTEE MEETING

Chair Kerns

4. UPDATE ON WASTEWATER SURVEILLANCE OF HIGH- RISK SUBSTANCES IN NEVADA

Daniel Gerrity, Ph.D., P.E.

Principal Research Scientist, Southern Nevada Water Authority

Edwin Oh, Ph.D.

Associate Professor, Neurogenetics and Precision Medicine Lab, University of Nevada
Las Vegas

2023 SURG Annual Report

- **SURG Recommendation:**

- *Recommend the Nevada System of Higher Education (NSHE) conduct a feasibility study to understand the true cost of implementing **wastewater-based epidemiology (WBE)** in Nevada and its ability to support community response plans. Funding for this study may be available through the Fund for a Resilient Nevada.*

- **SURG Comments:**

- True outcomes and capacity are unknown
- Not urgent but has potential to improve understanding of population-level characteristics
- Potential to fill knowledge gaps related to racial & health equity (e.g., rural areas)

S. Nevada Case Study

- **Duration:** samples every 2 weeks for 1 year
- **Location:** 8 sewersheds
- **Trace Organics:** 17 compounds
- **High Risk Substances:** 22 compounds

Wastewater surveillance of high risk substances in Southern Nevada:
Sucralose normalization to translate data for potential public health action

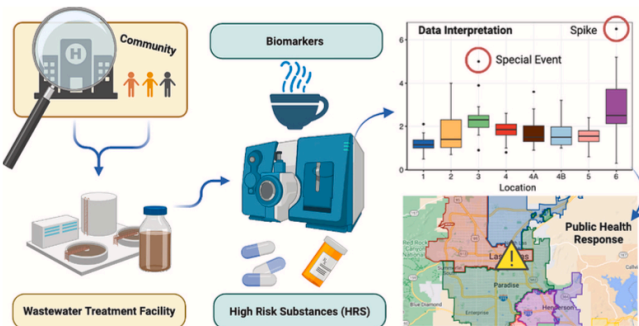
Daniel Gerrity^{a,*}, Katherine Crank^a, Edwin C. Oh^b, Oscar Quinones^a, Rebecca A. Trenholm^a,
Brett J. Vanderford^a

^a Applied Research and Development Center, Southern Nevada Water Authority, P.O. Box 99954, Las Vegas, NV 89193, United States
^b Laboratory of Neurogenetics and Precision Medicine, Nevada Institute of Personalized Medicine, Department of Internal Medicine, UNLV School of Medicine, University of Nevada, Las Vegas, Las Vegas, NV 89154, United States

HIGHLIGHTS

- Heroin and methamphetamine use increased ~200 % between 2010 and 2022.
- Increased fentanyl consumption was observed starting in October 2022.
- Sucralose normalization adjusts for urine/fecal load and transient populations.
- Of the illicit drugs, methamphetamine yielded the highest per capita consumption.
- Wastewater surveillance can help inform public health action to reduce overdoses.

GRAPHICAL ABSTRACT

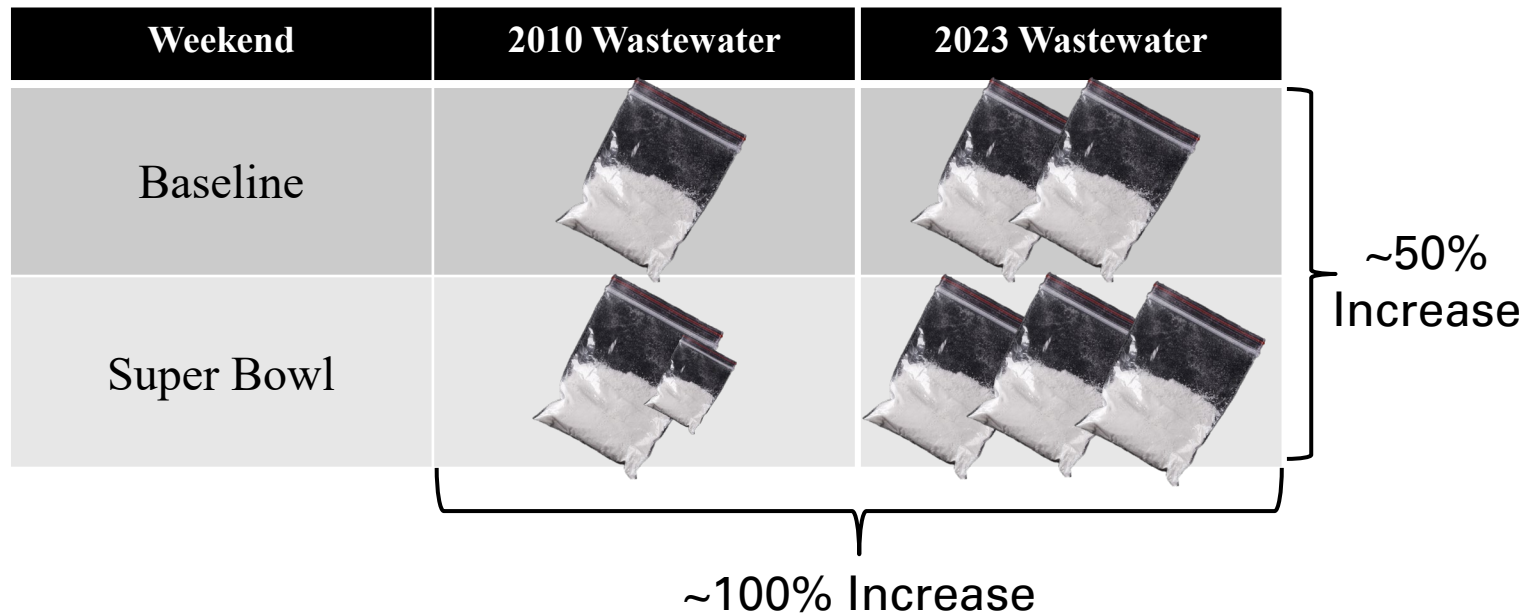


Trace Organics	High Risk Substances
Acetaminophen	Acetylmorphine
Atenolol	Amphetamine
Caffeine	Benzoyllecgonine
Carbamazepine	Cocaine
DEET	Codeine
Fluoxetine	EDDP
Gemfibrozil	Ecgonine
Ibuprofen	Ecgonine Methyl Ester
Meprobamate	Heroin
Naproxen	Hydrocodone
Primidone	MDA
Sucralose	MDMA
Sulfamethoxazole	Methadone
TCEP	Methamphetamine
Triclocarban	Morphine
Triclosan	Norcocaine
Trimethoprim	Norfentanyl
	Oxycodone
	THC
	THC-COOH
	THC-OH
	Tramadol

High Risk Substance (HRS) Use Case #1

- **Objective:** Assess long-term trends in community-scale HRS use
- **Policy/Health:** Evaluate shifting trends and policy effectiveness
- **Scale:** Centralized wastewater treatment facilities

Southern Nevada Trends in Cocaine Consumption:

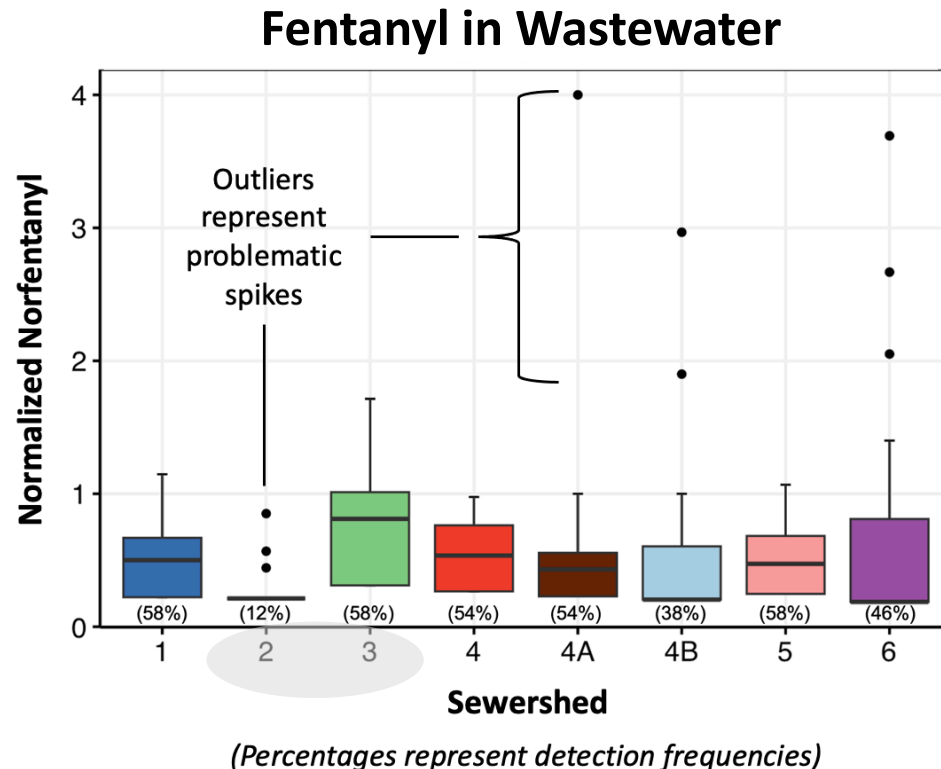


Establishing Baselines (2023):

- Cocaine = 1,518 kg
- **Fentanyl = 50 kg**
- Heroin = 302 kg
- MDMA = 150 kg
- Methamphetamine = 7,676 kg

High Risk Substance (HRS) Use Case #2

- **Objective:** Identify concerning spikes in HRS use
- **Policy/Health:** Identify times and locations for targeted interventions
- **Scale:** Centralized wastewater treatment facility (or collection system)



2022/2023 Overdose Rates:

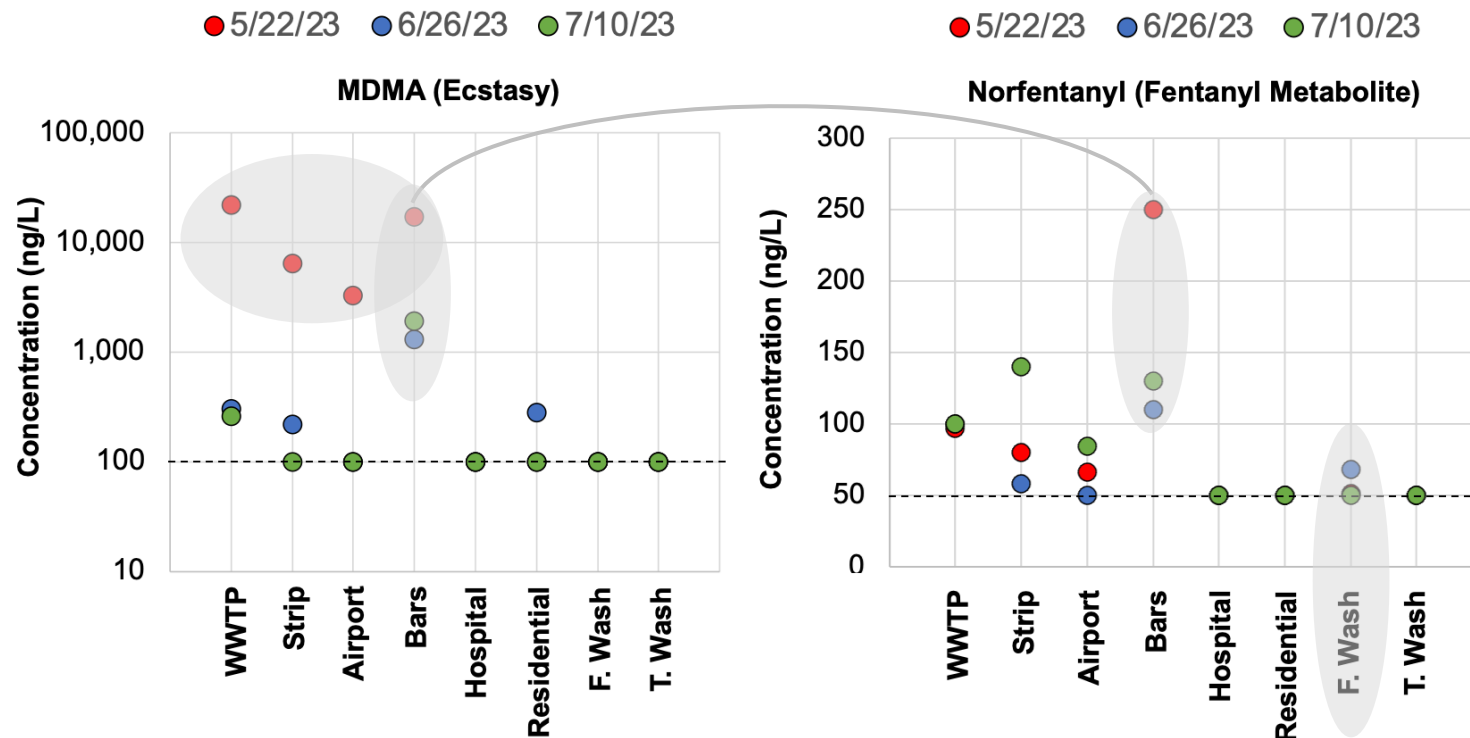
Lowest: 80 per 100k → Sewershed 2

Highest = 337 per 100k → Sewershed 3

(Increase in norfentanyl after October 2022)

High Risk Substance (HRS) Use Case #3

- **Objective:** Conduct high resolution wastewater surveillance
- **Policy/Health:** Mobilize facility-specific interventions (awareness / naloxone)
- **Scale:** Collection system manholes



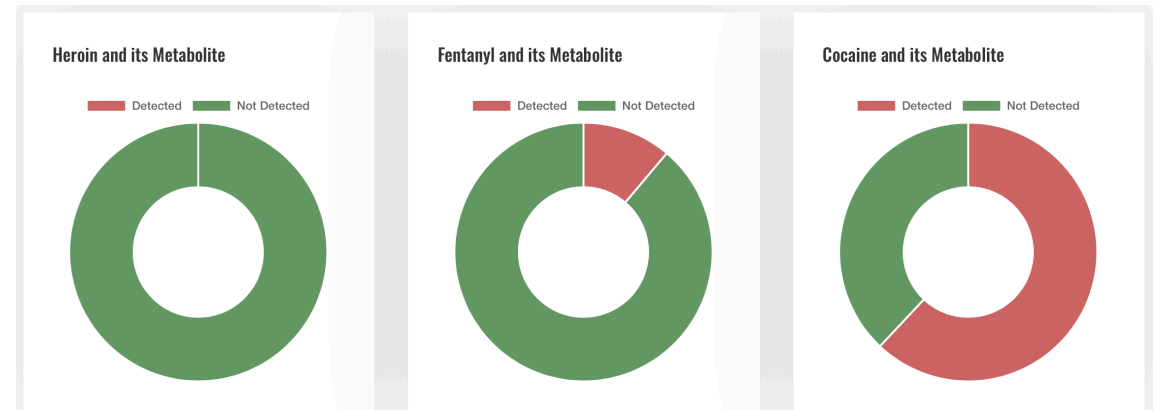
Notable observations:

- MDMA elevated during EDC
 - 100x higher at treatment plant
 - 10,000x higher at EDC manhole
- MDMA/norfentanyl spike at bars
- MDMA/norfentanyl elevated at bars
- Norfentanyl & homelessness
- Xylazine in 1 hospital sample

Fund for a Resilient Nevada - Proposal

- **Collaboration:** UNLV (Ed Oh), UNR (David Hanigan), CSN (Doug Sims), SNWA (Dan Gerrity)
- **Priority Area:** Target 7 - Provide high quality and robust data and accessible, timely reporting
- **Requested Funding:** \$750k/year for 3 years
- **Overview of Project**
 - Target population = **youth** (~13-17) + **transitional age youth** (18-24)
 - Manhole sampling at urban and rural **high schools** and **college/university campuses** in Nevada
 - Manhole sampling specific to **bars/nightclubs**
- **Potential Public Health Actions**
 - Awareness/outreach programs
 - Naloxone deployment
 - Fentanyl test strips to bars/nightclubs

New Mexico Wastewater Drug Monitoring Dashboard:



References

High Risk Substance Wastewater Surveillance in the U.S.:

- National Institute on Drug Abuse (NIDA) / Biobot Analytics: <https://biobot.io/press-release/biobot-analytics-awarded-nida-funding-for-nationwide-wastewater-based-monitoring-program-for-high-risk-substances-and-others-associated-with-health-risks/>.
- Wastewater Surveillance of High Risk Substances at New Mexico High Schools: <https://www.governor.state.nm.us/wastewater-testing/>.
- Virginia Executive Order for Wastewater Surveillance of Fentanyl: <https://www.vdh.virginia.gov/environmental-health/wastewater-surveillance-for-covid-19/>.

High Risk Substance Wastewater Surveillance in Southern Nevada:

- Gerrity, D., Crank, K., Oh, E.C., Quinones, O., Trenholm, R.A., Vanderford, B.J., 2024. Wastewater surveillance of high risk substances in Southern Nevada: Sucralose normalization to translate data for potential public health action. Sci. Tot. Environ. 908, 168369. <https://doi.org/10.1016/j.scitotenv.2023.168369>.
- Zhuang, X, Moshi, M.A., Quinones, O, Trenholm, R.A., Chang, C-L., Cordes, D., Vanderford, B.J., Vo, V., Gerrity, D., Oh, E.C., 2024. Spatial and temporal drug use patterns in wastewater correlate with socioeconomic and demographic indicators in Southern Nevada. JAMA Network Open. In press. Preprint: <https://doi.org/10.1101/2024.02.02.24302241>.

Disclosures

- Sampling was performed as part of a SARS-CoV-2 wastewater surveillance effort funded by the U.S. Centers for Disease Control and Prevention:
 - **U.S. Centers for Disease Control and Prevention (NH75OT000057-01-00)**
 - **University of Nevada Las Vegas (PI: Edwin Oh)**
 - **Southern Nevada Health District (Cassius Lockett and Kimberly Franich)**
- We would like to acknowledge the collaborating wastewater agencies for their assistance with sample logistics and the following individuals for their contributions in the field and laboratory: Casey Barber, Ching-Lan Chang, Eric Dickenson, Rick Donahue, Dan Fischer, Janie Holady, Karleigh Hovemo, Michael Moshi, Katerina Papp, Oscar Quinones, Jessica Steigerwald, Brittney Stipanov, Rebecca Trenholm, Brett Vanderford, and Phil Wang.

Contact Information

Name	Dan Gerrity, Ph.D., P.E.
Title	Principal Research Microbiologist, Southern Nevada Water Authority (SNWA)
Phone	725-202-5173
Email	Daniel.Gerrity@snwa.com

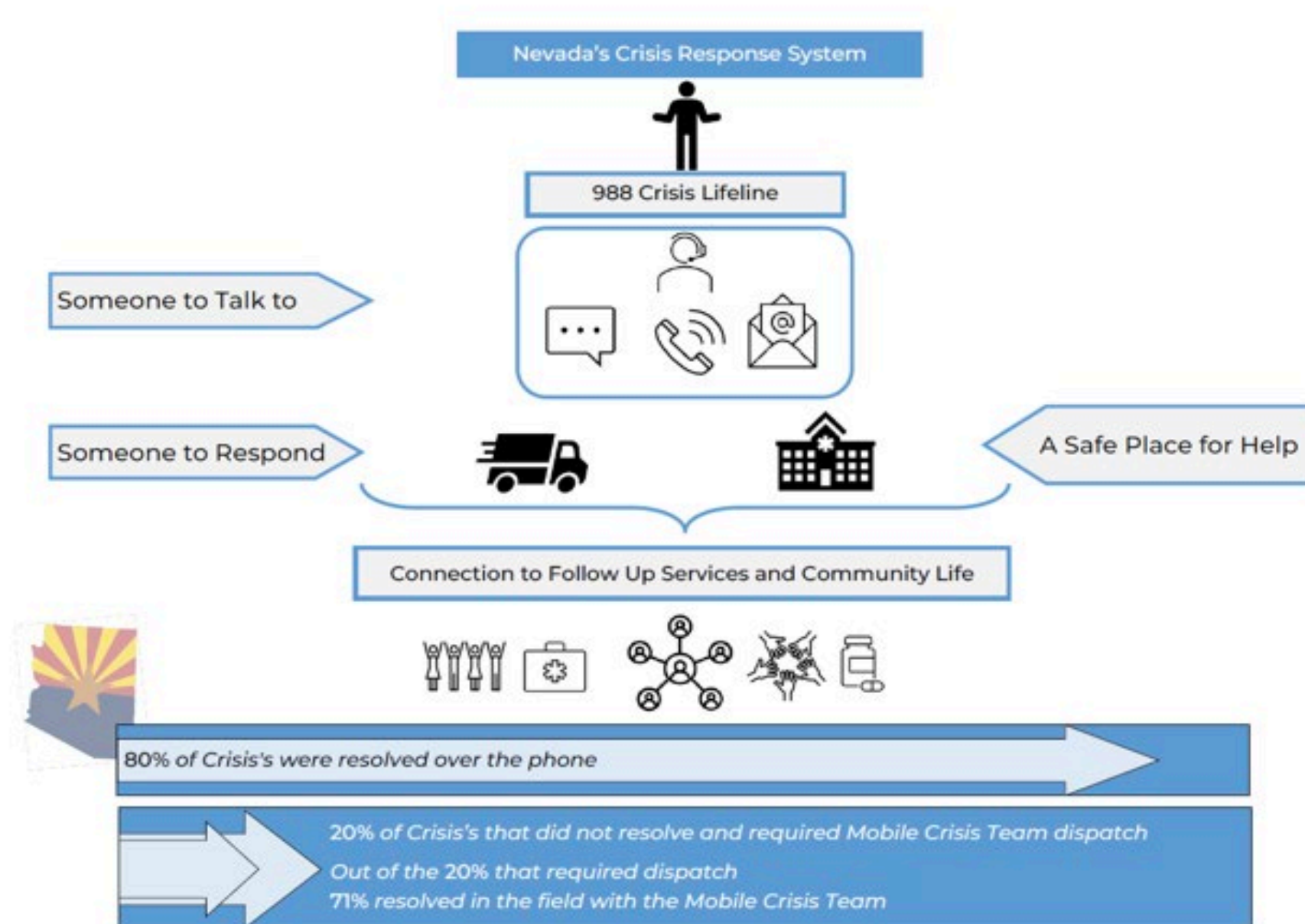
Name	Ed Oh, Ph.D.
Title	Associate Professor, University of Nevada Las Vegas (UNLV)
Phone	702-895-0509
Email	Edwin.Oh@unlv.edu

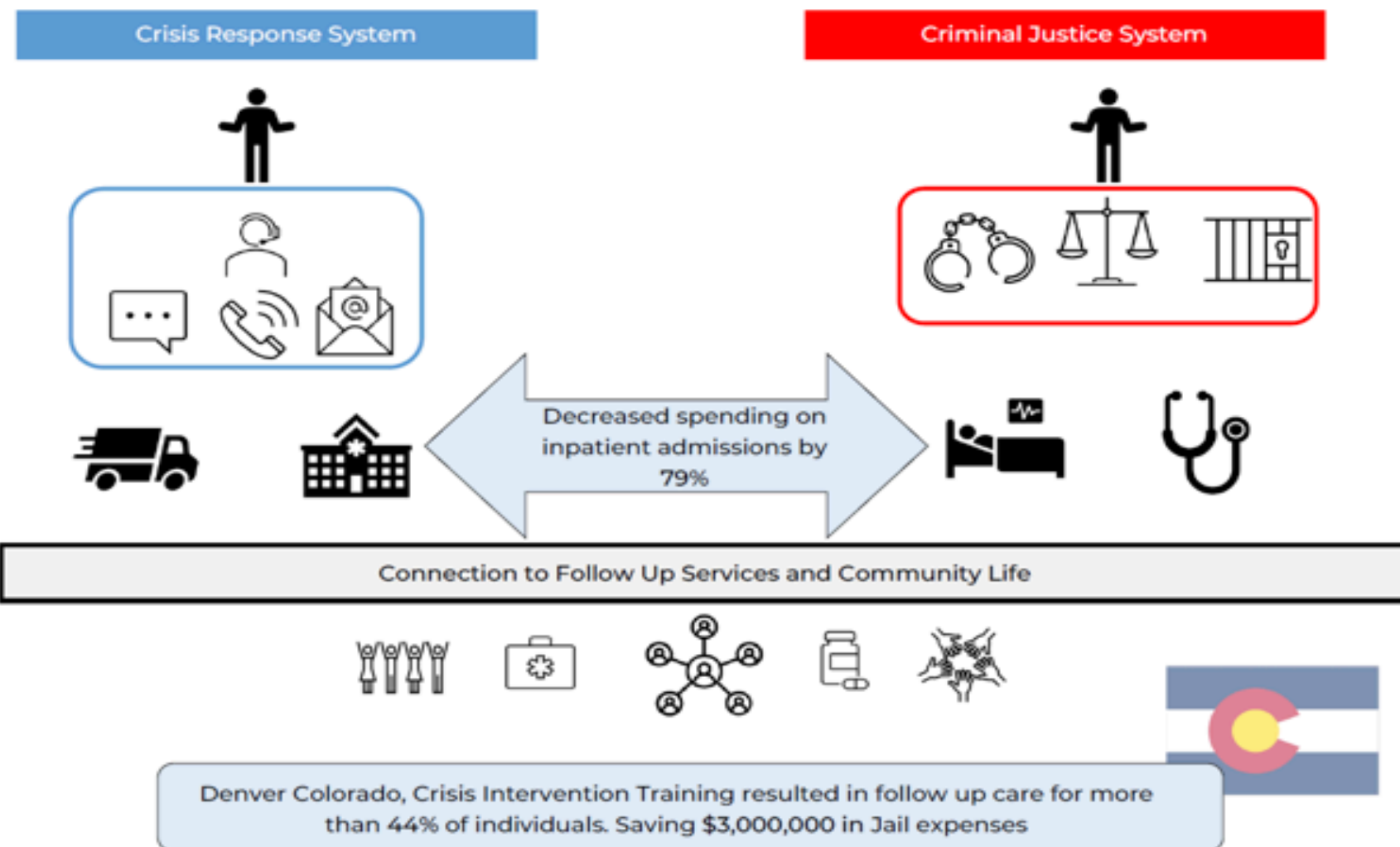
5. MOBILE OVERDOSE RESPONSE AND NEVADA'S CRISIS RESPONSE SYSTEM

Rachel Isherwood, BSW, CCM, Crisis Response System Program Manager, Bureau of Behavioral Health, Wellness, and Prevention, Nevada Division of Public and Behavioral Health

Nevada's Crisis Response System

- . Overview of Crisis Response System
- . Importance Mobile Crisis for diversion and deflection
- . follow up services
 - . non-fatal overdose
 - . SUD: non-fatal overdose
 - . Naloxone





6. VIRGINIA'S FRAMEWORK FOR ADDICTION ANALYSIS AND COMMUNITY TRANSFORMATION (FAACT)

Ken Pfeil, Commonwealth Chief Data Officer, Marcus Thornton, Deputy Chief Data Officer, and Chris Burroughs, Director of Data Protection and Governance, Office of Data Governance and Analytics





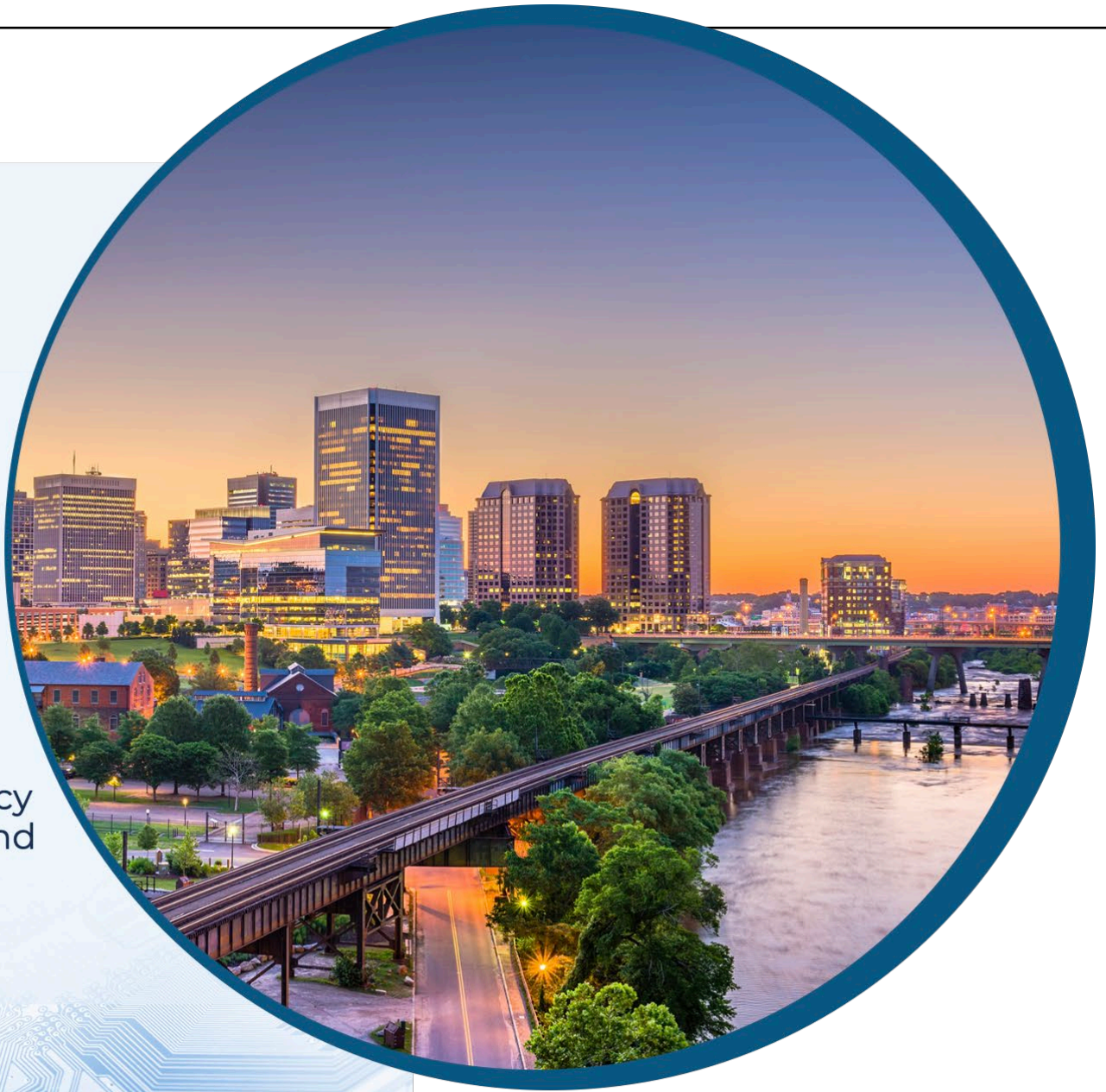
odga | What We Do

Foster data sharing through the
Commonwealth Data Trust

Help agencies implement data
governance strategies

Provide technical assistance

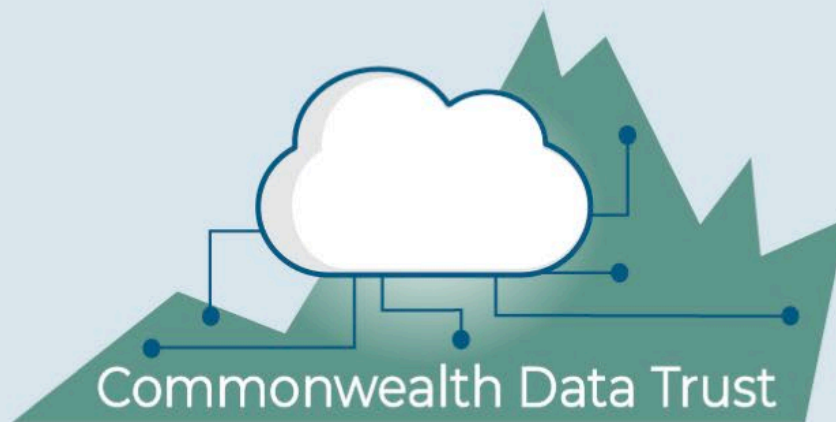
Develop innovative data analysis and
intelligence methodologies and best
practices to promote data-driven policy
making, decision making, research, and
analysis





Commonwealth Data Trust

Standardized, Safe, and Secure Data Sharing



Enables data sharing between agencies

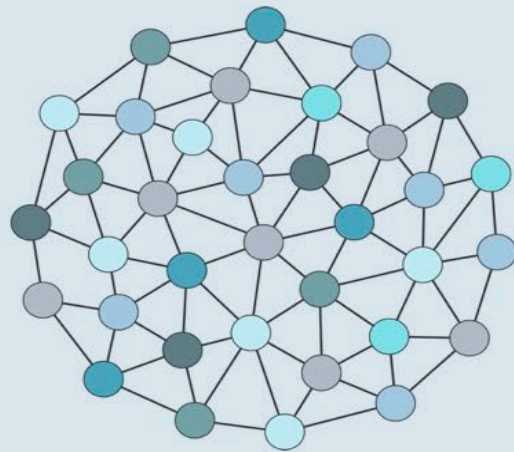
Membership provides access to ODGA services and training

No Requirement to contribute data, free to join, not the same as the Workforce Data Trust



Commonwealth Data Trust

Standardized, Safe, and Secure Data Sharing



Before- Multiple point-to-point,
one off agreements

Now- ODGA facilitates safe, secure,
and standardized data sharing




FAACT

Framework for Addiction Analysis and
Community Transformation.

Partnership with multiple agencies
and localities who have a common
interest in sharing data.

Multiple datasets in one platform.

Visualization capabilities for easy
analytics of data. Fuels data driven
decision making.

A circular graphic with a blue border. Inside, there are several white, oval-shaped pills on a black background. A piece of white paper with a torn edge is placed over the pills, and the words "Opioid Addiction" are printed in a large, black, serif font on the paper.

Opioid Addiction



FAACT- Key Capabilities

Comprehensive Data Governance

FAACT leverages the Commonwealth's Data Trust, a legal framework that establishes rules of engagement around how data is used, anonymized, and accessed. This ensures that data is accurate, trustworthy, and protected.

Self-Service Analytics

Curated data visualization applications facilitate situational awareness and provide answers to some of the most pressing questions about substance use and addiction at the community level.



Secure Data Sharing

Through a secure Data Sharing Platform, the FAACT project makes datasets available for exploration, data profiling, and consumption as allowed by the Commonwealth Data Trust Agreement. Every data element from datasets is accessibly via secure API or export.

Predictive Capability

Using data science techniques, the FAACT project conducts deep analyses on available datasets to study complex trends and patterns around substance use and addiction.



FAACT By The Numbers

- 20+ Agencies sharing data
- 8.6 Million Citizens Covered
- Unique Data Elements: 1,300+
- Unique Substances Tracked: 2,300+
- Years of Data Compiled: 30



- Law Enforcement Unique Incidents: 10M+
- Law Enforcement Encounters: 30M+
- Note: Encounters represent all related activities on the Incident (e.g., One incident could have multiple crimes leading to several encounters)



- EMS Naloxone Administrations (2018-Present): 40K+
- VDH Naloxone Kits Distributed (2023-Present): 190K+
- Fentanyl Test Strips Distributed (2023-Present): 150K+





Lessons Learned

- Better understanding of how to best coordinate data sharing.
- A common MOU for data sharing provides a simpler process.
- Data Quality- reinforcing the need for a sound data strategy.





FAACT FAQs

How can FAACT Ensure proper protection, documentation, and dissemination of data?

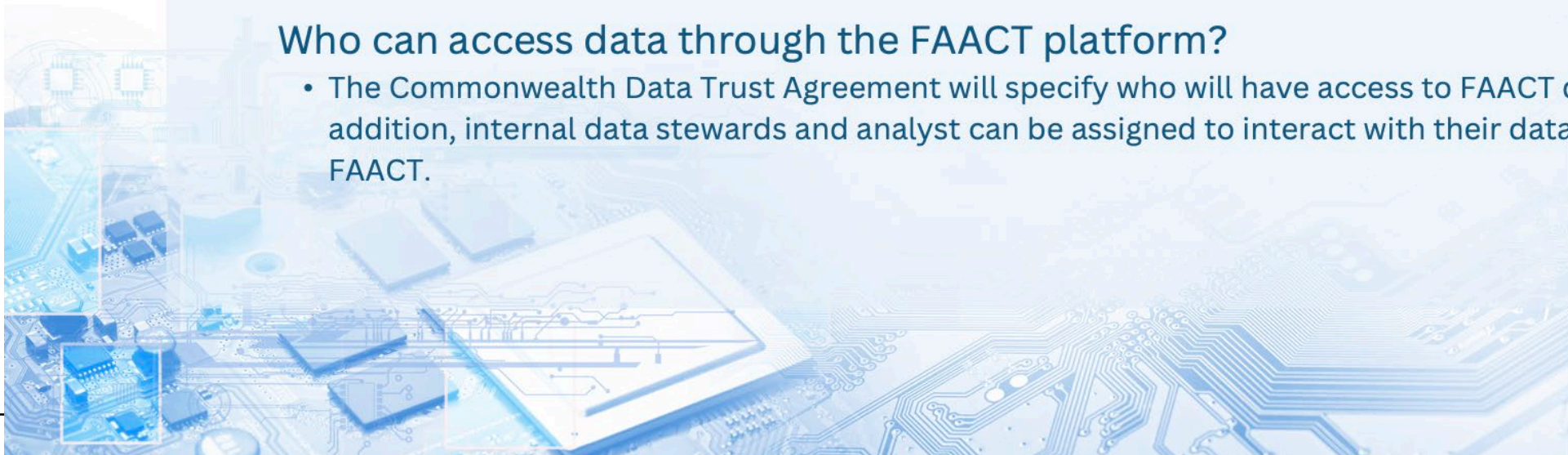
- Through the Commonwealth Data Trust agreement and a comprehensive data governance model.

How will anonymity of data sources be protected to ensure value and viability?

- Agencies will send key identifiers(PII & demographic data) separate from domain data and will be hashed (masked/de-identified).

Who can access data through the FAACT platform?

- The Commonwealth Data Trust Agreement will specify who will have access to FAACT data. In addition, internal data stewards and analyst can be assigned to interact with their data within FAACT.





FAACT DEMO

Helping the Commonwealth combat the opioid crisis



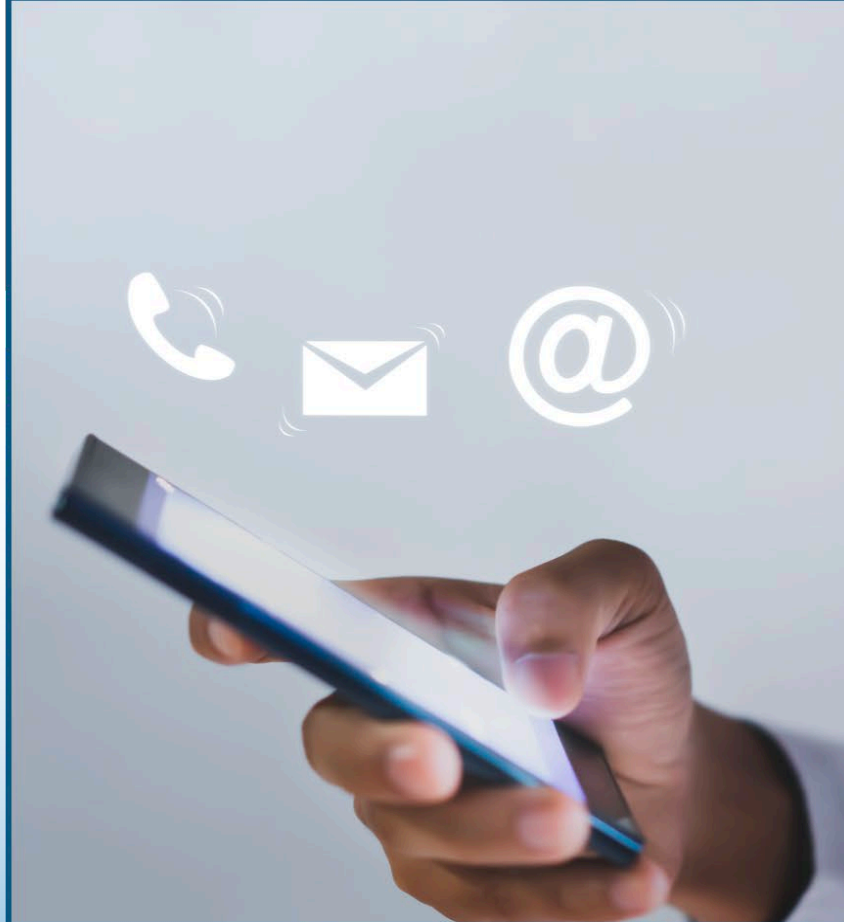
Secure Data Sharing

Insights reinforced through visualizations and dashboards

Data viewable at the locality level

Allowing for data driven decisions to be made





7. OVERVIEW OF RECOMMENDATIONS RECEIVED AND NEXT STEPS

Chair Kerns

Recommendations Received and Next Steps

- **Recommendation #1:** Recommend a BDR to have recidivism defined in NRS
- **Submitted by:** Dr. Terry Kerns
- **Justification:** Recidivism is the act of committing another crime or coming into conflict with the criminal justice system (CJS) again. It is an important measure of the effectiveness of CJS efforts to promote rehabilitation, reintegration, and public safety. Recidivism rates are not available at a national level 1 since there is no national consensus on the operational definition of recidivism and there are significant variations in how recidivism is defined and counted (e.g., re-contact, re-arrest, re-incarceration, or reconviction) in different jurisdictions. For this reason, comparisons between studies and jurisdictions should not be made. (Recidivism in Criminal Justice, <https://www.justice.gc.ca/eng/rp-pr/jr/jf-pf/2020/aug01.html>). The Nevada Department of Corrections defines recidivism as a return to incarceration with NDOC within 3 years of an offender's date of release.
- **Research link(s):** Recidivism in the 2019 Release Cohort, Nevada Department of Corrections. See also the National Governor's Association Center for Best Practices letter.
- **Possible presenters:** Cherylyn Rahr-Wood cherylyn@nrhp.org Northern Behavioral Health Coordinator and Katie Synder (contractor on COSSUP grant) ksnider@justiceresearch.org

Recommendations Received and Next Steps

- **Recommendation #2:** Recommend research into implementation of statewide Data Sharing Agreements with the Chief Data Officer of the State of NV and implementation of a cross-sector data base housing multiple points of data across prevention, treatment, recovery, and criminal justice.
- **Submitted by:** Shayla Holmes
- **Justification:** Virginia's Framework for Addiction Analysis and Community Transformation (FAACT) is a secure data-sharing platform led by the Department of Criminal Justice Services (DCJS) in collaboration with Virginia's chief data officer (CDO). It combines previously siloed data from different agencies, secretariats, localities, social services, public safety and corrections, drug courts, community coalitions and private healthcare systems. It generates insights about contributing factors, brings awareness and delivers actionable intelligence to community leaders supporting their timely and effective response.
- **Research link(s):** What is FAACT, Virginia's now-mandated opioid data-sharing tool?
Framework for Addiction Analysis and Community Transformation (FAACT)
Code of Virginia: Government Data Collection and Dissemination Practices Act
- **Possible presenters:** Ken Pfeil, Chief Data Officer of the State of Virginia and/or Jason Benshoof, State of Nevada's Chief Data Officer

Recommendations for Consideration

From 2022:

- (For Consideration) Resolve the conflict between the Good Samaritan Drug Overdose Act and Drug Induced Homicide Law; immediate actions may include recommending community-level education using best practice guidelines, as well as education for law enforcement personnel.

From 2023:

- (Unranked) Recommendation to the DHHS (Office of Analytics/or the appropriate entity) to create a data dashboard or other type of regularly updated report on alcohol outlet, tobacco outlet, and cannabis outlets density.
- (Unranked) Recommend the Nevada System of Higher Education (NSHE) conduct a feasibility study to understand the true cost of implementing wastewater-based epidemiology (WBE) in Nevada and its ability to support community response plans. Funding for this study may be available through the Fund for a Resilient Nevada.
- (Revised from 2022 and removed from 2023 Annual Report Rankings for further consideration in 2024) Review the operations and lessons learned from Clark County's Overdose Fatality Review Task Force when that body's report is released in December 2024 and take this into account when supporting legislation to establish regional Overdose Fatality Review (OFR) Committees allowing flexibility as to the makeup and practice and for the OFR to remain at the county or regional level, as needed, to effectively identify system gaps and innovative community-specific overdose prevention and intervention strategies in accordance with established best practices such as the Bureau of Justice Assistance's Overdose Fatality Review: A Practitioner's Guide to Implementation. (See also Overdose Fatality Review for additional resources.)

8. APPROACH TO RECOMMENDATIONS RANKING PROCESS

Chair Kerns

9. UPCOMING RESPONSE SUBCOMMITTEE MEETINGS

Chair Kerns

2024 Response Subcommittee Meetings

Current Presenter/Topic Suggestions for Upcoming Meetings:

- Refine Recommendations (September)
- Update from Nevada Opioid Center of Excellence (September)
- Update on Jail MOUD MDT (September)
- Workforce (September)
- Clark County Opioid Task Force (November)
- Finalize Recommendations with feedback from SURG (November)

Response Meeting Dates:

- September 18, November 5 from 11:00 am - 12:30pm

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11. ADJOURNMENT

ADDITIONAL INFORMATION, RESOURCES & UPDATES AVAILABLE AT:

[https://ag.nv.gov/About/Administration/Substance
_Use_Response_Working_Group_\(SURG\)/](https://ag.nv.gov/About/Administration/Substance_Use_Response_Working_Group_(SURG)/)



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