



Foundation *for*
Opioid Response Efforts

12/08/22

Lessons Learned (So Far) from FORE's Innovation Challenge in Developing Responses to the Opioid Crisis

Agency for Substance Abuse Prevention

University of Massachusetts Dartmouth College of
Nursing & Health Sciences

Brown University School of Public Health

Tufts University



School of
Public Health
BROWN UNIVERSITY

Tufts
UNIVERSITY

Introduction



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Karen A. Scott, MD, MPH

President

Foundation for Opioid Response Efforts



Follow ongoing updates on our website:
<https://www.ForeFdn.org>

Agenda

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1. Welcome and Webinar Logistics

Karen Scott, MD, MPH (FORE)

2. Faith-Based Support Specialist Program

Reverend Byron Jackson (Agency for Substance Abuse Prevention)

3. Novel Organizational Simulation Training to Improve Graduate's Mastery & Attitudes (NO STIGMA)

Mirinda Tyo, PhD (UMass-Dartmouth College of Nursing & Health Sciences)

4. Understanding drug use within a rapidly changing supply: Lessons learned from Rhode Island

Alexandra Collins, PhD (Brown University School of Public Health)

5. Syndromic Surveillance to Prevent Overdose in Lowell, MA: Data to Action and Evaluation (STOP-OD Lowell)

Shikhar Shrestha, MS, PhD (Tufts University)

6. Question and Answer Session

Ken Shatzkes, PhD (FORE)

Webinar Logistics

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1. The webinar is being recorded and will be available on www.ForeFdn.org shortly after the session ends.
2. Presentation slides will be made available for download on our website.
3. Please use the “Q&A” found at the bottom of your Zoom screen.
 - If you have a similar question, please upvote using the thumbs up button on the question.
 - We will read as many questions live as time permits.
4. There will be a brief survey immediately following the webinar. Please provide us with feedback!

FORE Grantee Portfolio

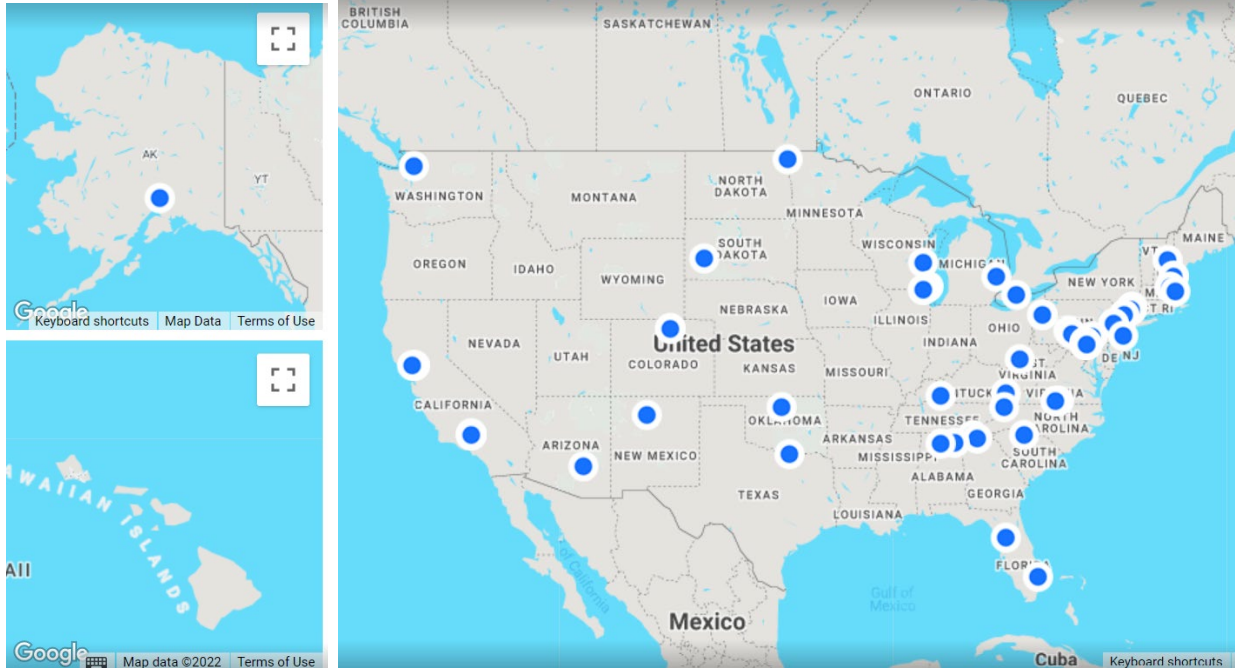
Grants to
date:

70

Amount
awarded:

\$31.9M

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See all FORE Grantees on our website:
<https://www.ForeFdn.org/Our-Grantees/>

INSPIRE AND ACCELERATE

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**Professional
education**



**Payer & Provider
strategies**



Policy initiatives



Public awareness

FORE Programs and Partnerships

FORE grantmaking programs to date have focused on:

- **Access to treatment** for vulnerable populations
- Responding to the **COVID-19 pandemic** through recovery services and evaluation of regulatory policies
- **Innovation** challenge to tackle some of the opioid crisis' most intractable problems (such as stigma, as well as generating more timely and actionable data)
- **Family- & community-based prevention** for children and families at high risk

Innovation Grantees

07



**Weill Cornell
Medicine**

Tufts
UNIVERSITY



New York State
Psychiatric Institute



Montefiore



Center for
Public Health
Law Research



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL



BROWN
School of Public Health

Webinar Presenters



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Reverend Byron Jackson

Faith-Based Support Specialist
Program Ambassador
Agency for Substance Abuse
Prevention



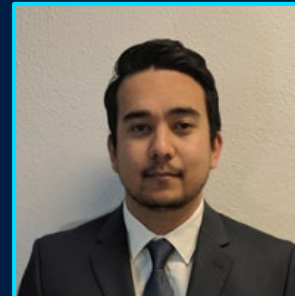
Mirinda Tyo, PhD

Assistant Professor
University of Massachusetts
Dartmouth College of Nursing &
Health Sciences



Alexandra Collins, PhD

Assistant Professor
Brown University School of Public
Health



Shikhar Shrestha, MS, PhD

Assistant Professor
Tufts University

Faith-Based Support Specialist Program



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Reverend Byron Jackson

Faith-Based Support Specialist Program

Ambassador

Agency for Substance Abuse Prevention

Contact Information:
ASAPFBSS@gmail.com

Team ASAP



FBSS is an Ecumenical Program.



CHRISTIANITY



BUDDISM



ISLAM



SHINTO



TAOISM



HINDUISM



JUDAISM



SIKHISM

The Need

Are most ministries equipped to handle substance misuse issues?

- People turn to faith (churches, temples, mosques, faith communities) in times of crisis.

What do we do with people with substance misuse?

- Many who have gone through treatment have stated that they turned to their church for help with overcoming substance misuse and their church was not equipped to help them.

The Purpose

- Prayer, Prevention, and Treatment DO work together.
- There is a gap between the faith-based community and the mental health field.
- Our goal is to remove the stigma surrounding mental health in the faith-based community.
- This program connects the church to certified resources statewide.



Certified Trainers and Facilitators impart knowledge into program participants.

The Program

- A 16-hour conference over two 8-hour days to become a Faith-Based Support Specialist (Quarterly, Statewide).
- The purpose of the conference will be for senior level religious leaders (senior pastors, associate pastors, priest, rabbi, etc.) to get the most up-to-date information on how to better serve those struggling with substance use disorder.
- When all 16 hours are completed, you will be a FBSS backed by ADMH.

FBSS Training Conference (Montgomery, AL)



The Topics

- Assessment
- Trauma Informed Care
- Treatment Planning
- Recovery Oriented System of Care
- Communication Skills (Effective Listening)
- Ethics
- Level of Care
- Role of Support Specialist
- Cultural Competence
- Resources
- Emerging Trends in Substance Misuse
- And more.....

FBSS Training Conference (Oxford, AL)



The Role

- Responsible for becoming recertified every 2 years (8 hours).
- Encourage other religious leaders to obtain their FBSS certification.
- Works to remove the stigma surrounding faith and mental health services.
- Provides **certified** resources to practitioners and other consumers in need.
- Reports to FBSS Ambassador the SPF data (Strategic Prevention Framework Data).

The Impact

- Program began March 2022
- Over 80 Clergy men and women of various denominations faiths certified.
- Expansion of the program to a SAMHSA regional conference planned for 2023.
- Clergy recommending colleagues to join the movement.

Novel Organizational Simulation Training to Improve Graduate's Mastery & Attitudes (NO STIGMA)



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Mirinda Tyo, PhD

Assistant Professor

University of Massachusetts Dartmouth

College of Nursing & Health Sciences

NO STIGMA Simulation Suite

High fidelity simulations to address stigma toward individuals with OUD

Created from focus group interviews with community partner, Massachusetts Organization for Addiction Recovery (MOAR)

Themes

- Stigmatizing language used by nurses and other healthcare personnel
- Being labeled as a barrier to care
- Inequitable care secondary to OUD stigma
- Recognizing OUD as a chronic illness facilitates care
- Insurance barriers
- Stigma associated with MOUD both within and outside community
- Community resources
- Nurses lack knowledge and this impacts care

NO STIGMA Simulation Suite

1. Access to Timely Care

- Setting: ED (unfolding case)
 - Stigmatizing language, delay in care, devaluation of patient, patient centered care, effective communication, empathy, recovery resources

2. Pain Management

- Setting: Acute Care (unfolding case)
 - OUD withdrawal, EBP for pain management, neurobiological factors of OUD as a chronic illness, family dynamics, referral to support services and the interprofessional healthcare team

3. Family Centered Compassionate Care

- Setting: Level 2 Nursery
 - Infant with neonatal abstinence syndrome, family centered care, stigmatizing language, bias in care, blame, redirecting narrative

NO STIGMA Simulation Suite

4. Harm Reduction

- Setting: ED
 - Trauma-informed approach, motivational interviewing, recognizing higher risk populations (e.g. LGBTQ+, human/sex “trafficking”), EBP for OUD treatment, interprofessional collaboration, harm reduction, SDOH

5. MOUD, Rural Care

- Setting: Telehealth
 - MOUD associated stigma, treatment misconceptions, family dynamics related to MOUD, SBIRT screening, telehealth, interprofessional collaboration

6. Older Adult & Being “Labeled”

- Setting: Primary Care
 - Stigmatizing language, address OUD as a chronic illness, “labeled” in the medical record, evidence-based OUD treatment, SBIRT, interprofessional collaboration with psych and social work, warm handoffs, SDOH

NO STIGMA Simulation Suite

Community and expert collaboration is IMPORTANT

Simulation content validated with experts, educators, and community partners

Themes

- Strategies for enhancing realism
- Recognition for diverse patients
- Additional cueing to generate empathetic responses
- Refining cueing to focus on stigma
- OUD as chronic illness
- Consensus between experts
- Limitations of simulation mannequins
- Novel approach to standardized patients

Opportunities

Engage undergraduate and graduate students in opioid-related research

Include opioid-stigma education in nursing curriculum

Innovative approaches:

- Spans entire nursing curriculum
- Telehealth as a simulation setting
- Diverse patient set
- Suggestions for how to enhance simulations using interrelated concepts of pain management, recognizing early symptoms of withdrawal, SDOH, LGBTQ+ health, and sex trafficking

Challenges

Recruitment of diverse community members

- Collaboration between PIs and community partners is essential
- Choice of community partners (focused on treatment and recovery)
- Variety of focus group modalities
- Needs of the community should be considered for incentive
- Historical mistreatment of vulnerable populations
- Diversity of research team

Optimize student participation

- Flexible scheduling required (weekends, evenings, after final exams, between semesters)

Recommendations

- Influence nursing curriculum and nursing practice
- Recognize the benefit of a multidisciplinary approach to comprehensive treatment
- Recognize nurses' role in effective communication, recognizing withdrawal symptoms, managing pain, and facilitating coping
- Recognize and respect different approaches are needed for OUD treatment
- Multiple opportunities to initiate harm reduction strategies i.e. take home naloxone, safe injection strategies

Data Generated

- Manuscript: Stigma, barriers, and facilitators experienced by members of the opioid use disorder (OUD) community when seeking healthcare: A qualitative study, *Journal of Nursing Scholarship* (open access).
- Podium presentation: Council for the Advancement of Nursing Science. September 2022, Washington DC

Forthcoming:

- Podium presentation: International Family Nursing Association Conference. Development of a Family Centered Simulation to Address Stigma Associated with Neonatal Abstinence Syndrome, June 2023, Dublin, Ireland

Data Generated

Submitted/Under Review:

- Podium presentation: Eastern Nursing Research Society. Content Validation of Opioid Use Disorder Stigma-Related Simulations for Nursing Curriculum, March 2023, Philadelphia, PA
- Podium presentation: Eastern Nursing Research Society. Recruitment of a Multifaceted Population of Opioid Use Disorder Community Stakeholders, March 2023, Philadelphia, PA
- Podium presentation: International Nursing Association for Clinical Simulation and Learning. Development of a Harm Reduction Simulation to Decrease Stigma towards LGBTQ Patients with Opioid Use Disorder, June 2023, Providence, RI

Thank you.



NO STIGMA

Building pathways to equitable care

<https://www.umassd.edu/nursing/research/no-stigma>

Understanding drug use within a rapidly changing supply: Lessons learned from Rhode Island



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Alexandra Collins, PhD

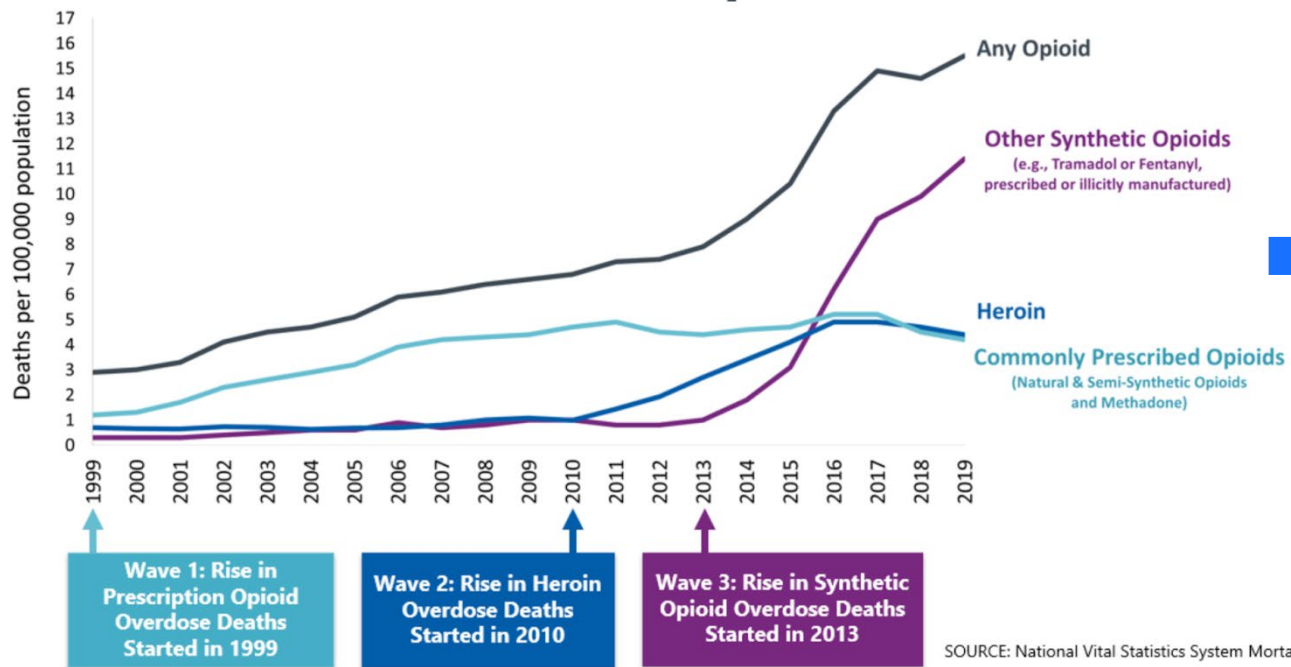
Assistant Professor

Brown University School of Public Health

Changing overdose crisis

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Three Waves of the Rise in Opioid Overdose Deaths



Toxicology testing & drug supply surveillance

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- Most drug surveillance data uses:
 - Drug seizure data
 - Leftover overdose biospecimen samples
 - Post-mortem toxicology data
- Delays in testing and reporting methods are common
- Direct supply testing provides insights into what drugs people are using together



Toxicological and Ethnographic
Drug Surveillance Testing RI

Meet the testRI team!



Alex Collins (co-PI)
Medical Social Scientist



Rachel Wightman (co-PI)
Medical Toxicologist + ED physician



Adina Badea (co-PI)
Director of Toxicology



Abdullah Shhipar
Science Communication Lead



Max Krieger
Data Manager + Data Viz



Claire Macon
Research Assistant

And our community partners



What is testRI?

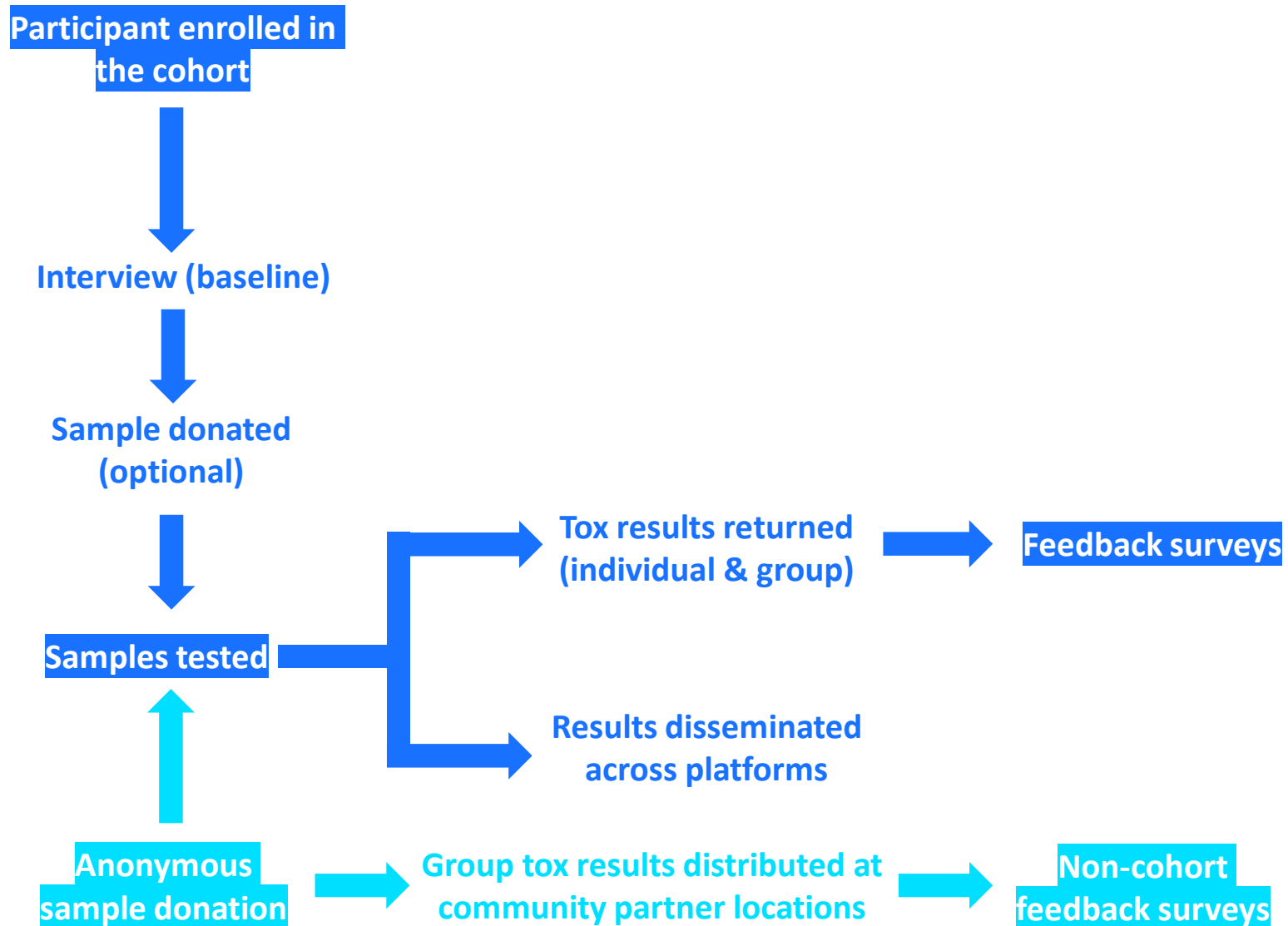
Two-year, community-based research project in Rhode Island

- Qualitative cohort of people who use drugs (n=50)
- Ethnographic fieldwork
- Toxicology testing (n=200 samples) + feedback surveys

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testRI goals

1. Assess drug supply changes on **individual-level** consumption practices
2. Track changes in the **street-level** drug supply using comprehensive toxicology methods
3. **Rapidly disseminate findings** across audiences to inform local overdose prevention efforts

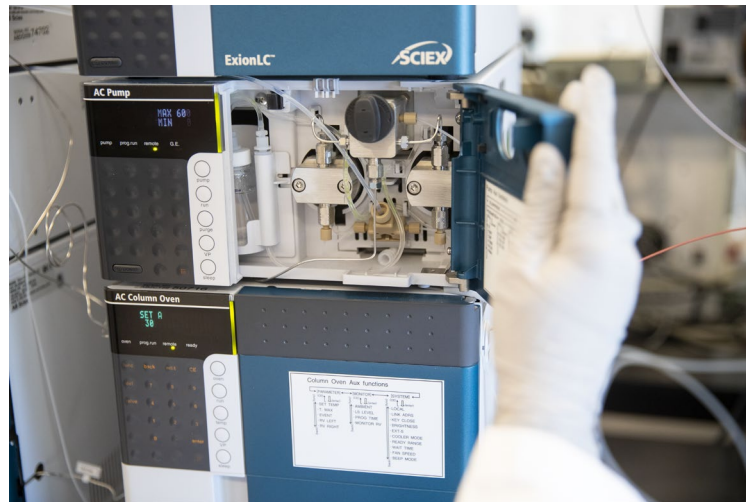
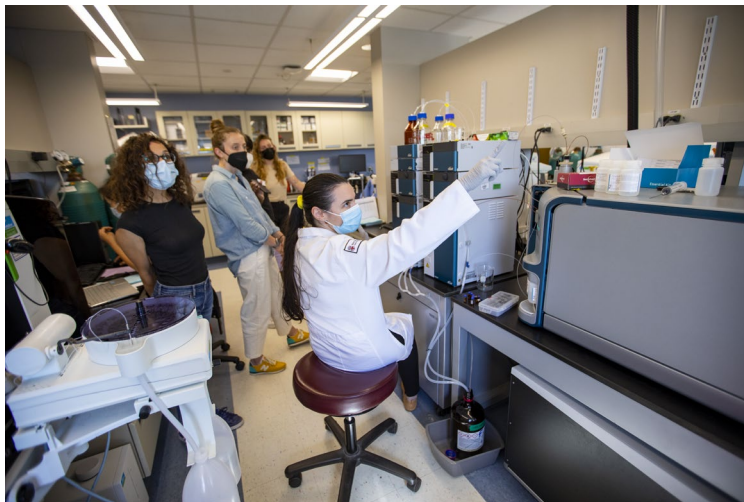


Sample collection

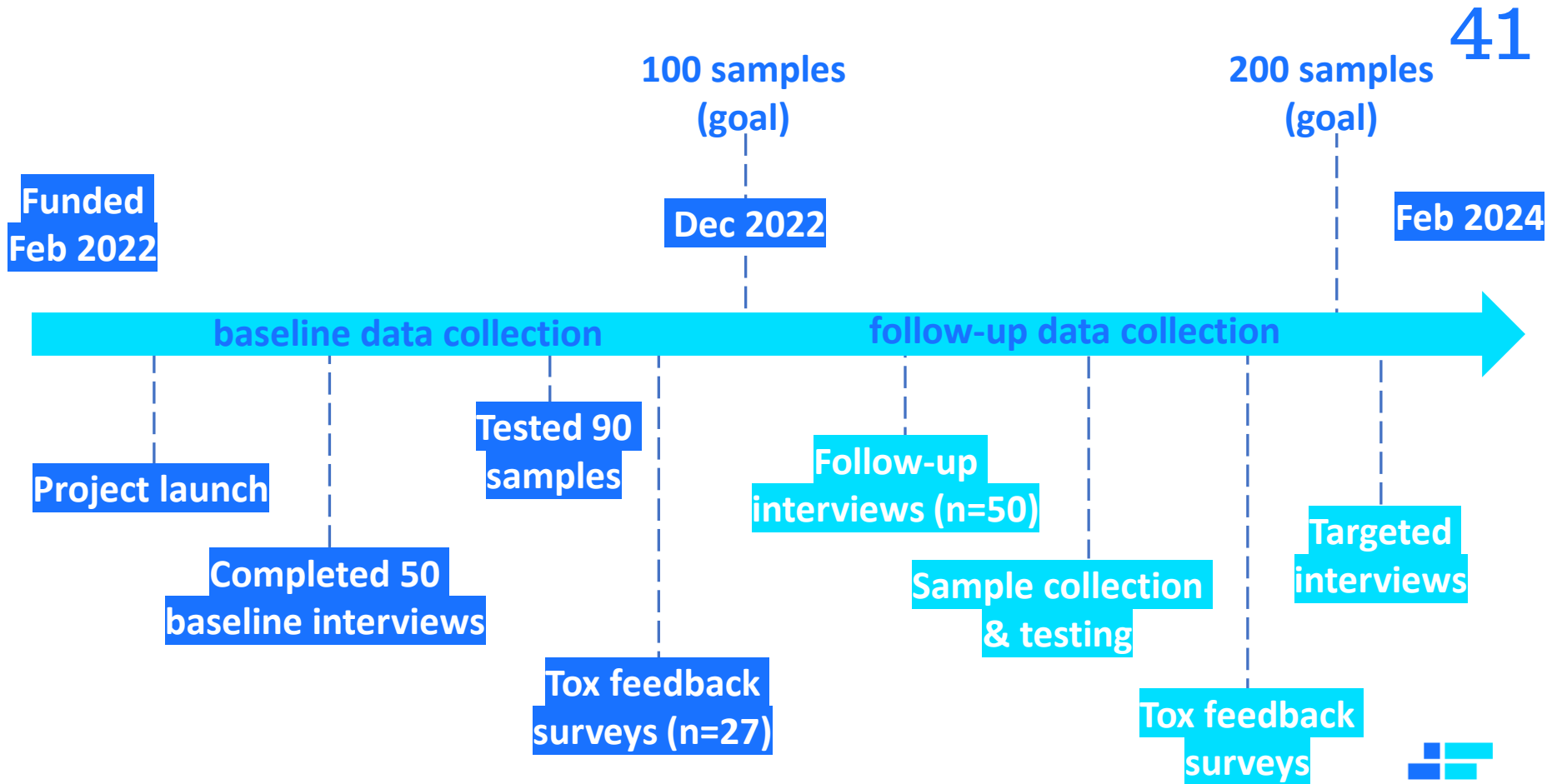
Samples include equipment (e.g., syringes, choy, cookers, pipes) refuse (e.g., baggies), and product

- Location and substance purchased are documented
- *For anonymously donated samples we are unable to collect detailed substance-specific information

Samples are dropped off at RI Hospital Laboratory for confirmatory testing on the LC-QTOF-MS



Where are we at?



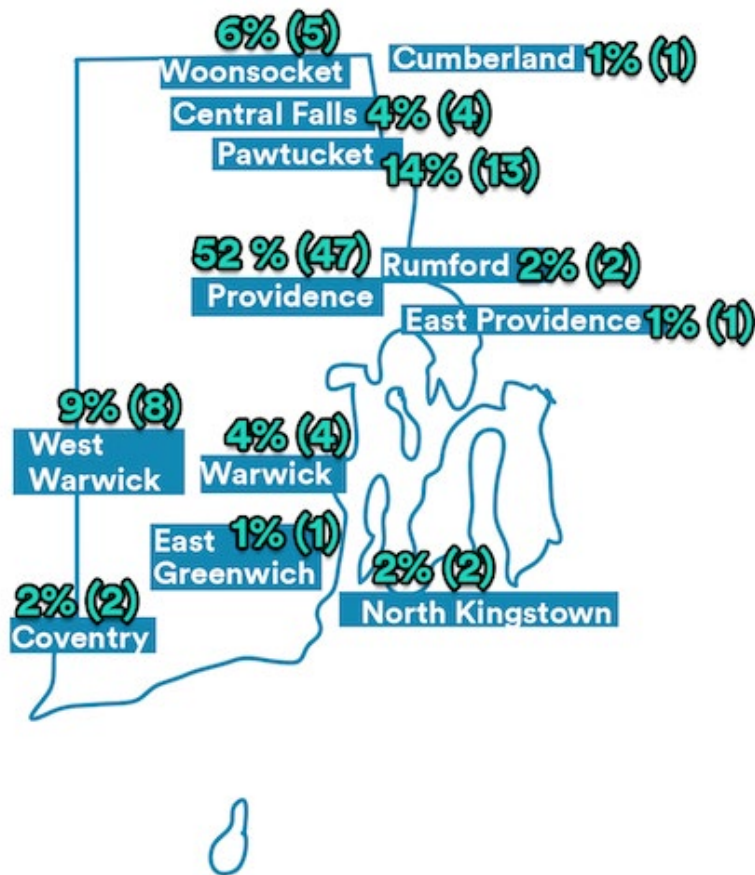


Toxicological and Ethnographic
Drug Surveillance Testing RI

Preliminary findings

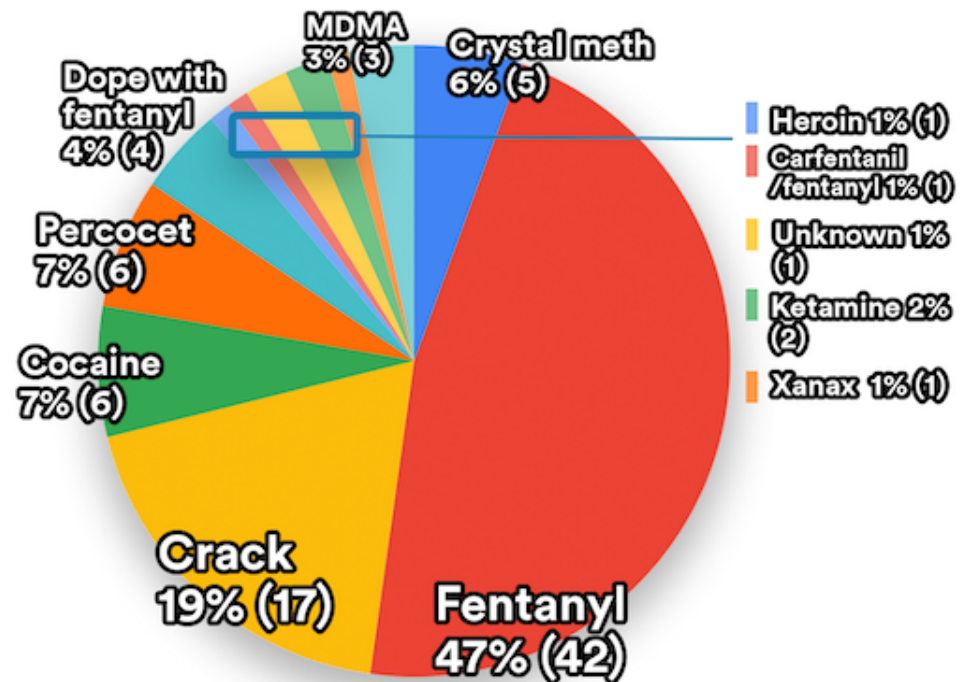
Tox samples to date (n=90)

where all samples were collected (90):



what samples were tested (90):

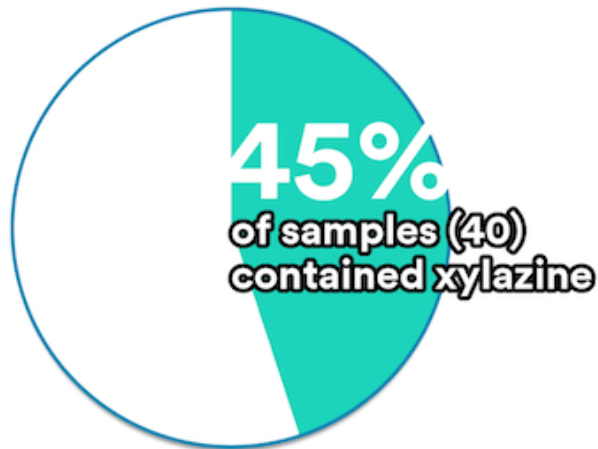
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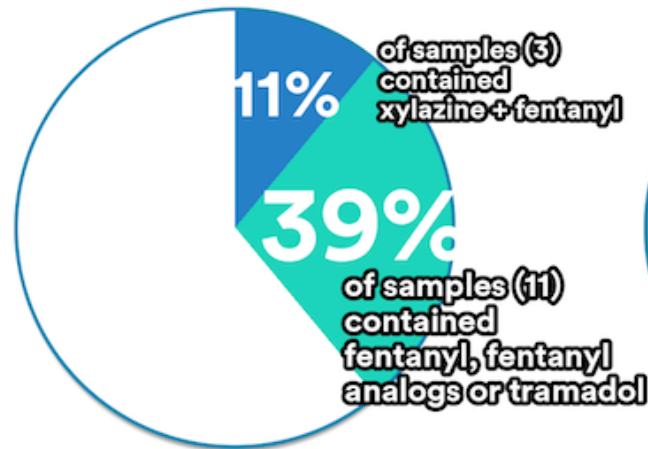
Tox samples to date (n=90)

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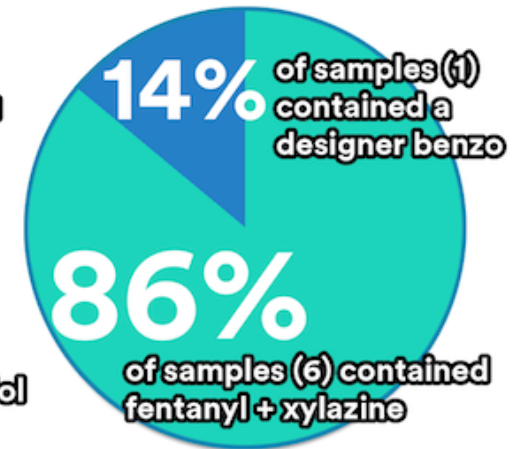
among all samples (90):



among stimulant samples (meth, cocaine) (28):



among pill samples (percocets, xanax) (7):



*See the full breakdown of our samples to date at testri.org

Preliminary Qualitative Findings

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1. Participants learn about the drug supply from peers, sellers, and the internet

- Sellers were described as helping participants gauge the strength of their product and how much to use at a time
- Supply content info viewed as useful to share back to participants' communities and sellers

2. Participants knew the supply was complex and using is *"like playing Russian roulette"*

- Participants modify their use based on quality of substance and how much they can get out of it
- Taking tester bumps/shots to judge strength

3. Participants described still being able to "feel high" but not always able to address their withdrawal symptoms

- For participants who mainly used stimulants, most viewed fentanyl as unavoidable or intentionally added
- Creating additional challenges for participants on medications for opioid use disorder




Toxicological and Ethnographic
Drug Surveillance Testing RI

Multi-level dissemination efforts

testri.org (Prevent Overdose RI)



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Get HelpENESPT...

COVID-19AboutLearn MorePrevent An OverdoseSee The DataFind ResourcesGet InvolvedLanguages


Local Drug Supply

testRI is a study to find out what is in Rhode Island's local drug supply.

You can get the most up-to-date information about the local drug supply from the testRI study on this page. You can check monthly for new information about the local drug sample supply and testing. [Find out about how the study works and how to get involved.](#) This two-year study is funded by the [Foundation for Opioid Response Efforts \(FORE\)](#).

It is important to know that the samples we collect and test only show us a small part of the drug supply in Rhode Island. These results may not represent the broader drug supply in the state.

Go to: [Updates](#) | [Spotlights](#) | [Testing Results](#) | [Substances Found](#) | [Resources](#)



testRI
Toxicological and Ethnographic
Drug Surveillance Testing RI

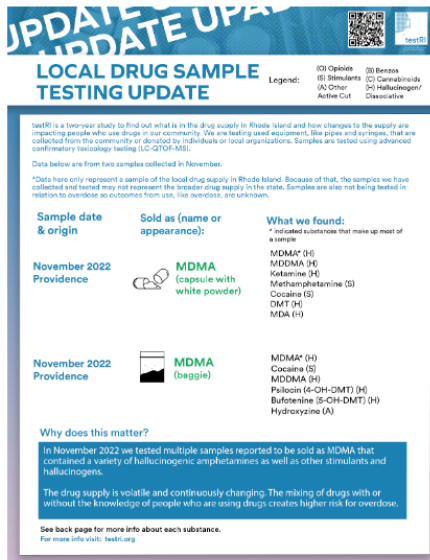
Get Involved

- [Study website](#)
- [Instagram](#)
- [Twitter](#)

- Since launching in June, we have had **2,145 visits** to the page (**1,754 unique page views**)
- **300-500 visits per month**
- Folks have spent an **average of 04:19** viewing the page



Local Drug Supply Updates



UPDATE UPDATE UPDATE



LOCAL DRUG SAMPLE TESTING UPDATE

Legend: (C) Opioids (S) Benzos (C) Cannabis/oids (H) Hallucinogens/ Dissociatives (B) Stimulants (A) Other (A) Other (A) Other

testRI is a biannual study to find out what is in the drug supply in Rhode Island and how changes to the supply are impacting people who use drugs in our community. We are testing used equipment, like pipes and syringes, that are collected from the community or donated by individuals or local organizations. Samples are tested using advanced confirmatory toxicology testing (LC-QTOF-MS).

Data below are from two samples collected in November.

*Data here only represent a sample of the local drug supply in Rhode Island. Because of that, the samples we have collected and tested may not represent the broader drug supply in the state. Samples are also not being tested in relation to overdose as outcomes from use, like overdose, are unknown.

Sample date & origin	Sold as (name or appearance):	What we found:
November 2022 Providence	 MDMA (capsule with white powder)	* indicated substances that make up most of a sample MDMA* (H) MDMA* (H) Ketamine (H) Mepharmphetamine (S) Cocaine (S) DMT (H) MDA (H)
November 2022 Providence	 MDMA (baggie)	MDMA* (H) Cocaine (S) MDMA (H) Pilocarpin (4-OH-DMT) (H) Bupropion (S-CH-DMT) (H) Hydroxyzine (A)

Why does this matter?

In November 2022 we tested multiple samples reported to be sold as MDMA that contained a variety of hallucinogenic amphetamines as well as other stimulants and hallucinogens.

The drug supply is volatile and continuously changing. The mixing of drugs with or without the knowledge of people who are using drugs creates higher risk for overdose.

See back page for more info about each substance.
For more info visit: testri.org

Click to download our latest drug supply update from November, 2022.

How do supply updates work?

One of the study's main goals is to see how drug supply changes impact people who use drugs in our community. This study tests used equipment, like pipes and syringes. We collect equipment from the community and donations from individuals or local organizations. We test samples using advanced confirmatory toxicology testing (LC-QTOF-MS).

What do these results mean?

Our results show that local drug supplies are volatile and change often. But it is important to know that the samples we collect and test only show us a small part of the drug supply in Rhode Island. These results may not represent the broader drug supply in the state. We also don't know whether what we tested led to an overdose.

Want to see more updates?

We will update this page every month with our latest findings. You can also [visit our Local Supply Update Archive to view all past updates.](#)

What have we tested?

Below is a list of all the samples we have tested. We show where we collected samples and what substances we found in each sample. We also show the substance the person thought they were using under the “sold as” column.

Legend:

O = Opioids; **S** = Stimulants; **B** = Benzos; **C** = cannabinoids; **A** = Other active cut; **M** = Starting materials/byproducts;

H = hallucinogen/dissociative; * indicated substances that make up most of a sample

Show 5 entries

Search: _____

Sample ▾	Month ▴	City/Town ▴	What was tested ▴	Sold as ▴	Substances found ▴
90	2022-11	Providence	Baggie (white powder)	Ketamine	Ketamine* (H) Cocaine (S) Nicotinamide (A) MDMA (H)
89	2022-11	West Warwick	Baggie (white powder)	Fentanyl	Fentanyl* (O) Methamphetamine (S) Cocaine (S) Acetylfentanyl (O) Acrylfentanyl (O) Beta-hydroxyfentanyl (O) Levamisole (A) Butyrfentanyl (O) Starting material and/or byproducts in fentanyl(s) production: Phenethyl-4-ANPP, 4-ANPP
88	2022-11	West Warwick	Baggie (white rock)	Crack	Cocaine* (S) Methamphetamine (S) Fentanyl N-ethylamphetamine Starting material and/or byproducts in fentanyl(s) production: Phenethyl-4-ANPP (M) Breakdown products/metabolites/intermediates of cocaine found: Benzoylcegonine, Ecgonine methyl ester, Ecgonine, Cocaethylene, Norcocaine (M)
87	2022-11	West Warwick	Baggie (white powder)	Fentanyl	Fentanyl* (O) Cocaine (S) Methamphetamine (S) Acetylfentanyl (O) Acrylfentanyl (O) Beta-hydroxyfentanyl (O) Starting material and/or byproducts in fentanyl(s) production: Phenethyl-4-ANPP, 4-ANPP*, Norfentanyl (M)
86	2022-11	Providence	Pill (white)	Xanax	Bromazolam* (B)
Sample	Month	City/Town	What was tested	Sold as	Substances found

Dissemination approaches

xylaZINE



zines about the drug supply



UPDATE UPDATE UPDATE

LOCAL DRUG SAMPLE TESTING UPDATE

Legend: (O) Opioids (B) Benzos (S) Stimulants (A) Other Active Cut

testRI is a two-year study to find out what is in the drug supply in Rhode Island and how changes to the supply are impacting people who use drugs in our community. We are testing used equipment, like pipes and syringes, that are collected from the community or donated by individuals or local organizations. Samples are tested using advanced confirmatory toxicology testing (LC-QTOF-MS).

Data below are from three samples collected in July.

*Data here only represent a sample of the local drug supply in Rhode Island. Because of that, the samples we have collected and tested may not represent the broader drug supply in the state. Samples are also not being tested in relation to overdose so outcomes from use, like overdose, are unknown.

Sample date & origin	Sold as (name or appearance):	What we found:
July 2022 Pawtucket	Crystal meth (cooker, clear crystal)	Methamphetamine* (S) Cocaine* (S) Phenacetin (A) Fentanyl (O) Levamisole (A) Lidocaine (A) Ketamine (A)
July 2022 Warwick	Crack cocaine (pipe with choy)	Cocaine* (S) Levamisole (A) Caffeine (A) Hydroxyzine (A) Phenacetin (A)
July 2022 Pawtucket	Fentanyl (baggie, tan powder)	Fentanyl* (O) Xylazine* (A) Caffeine* (A)

See back page for more info about each substance.
Visit PreventOverdoseRI.org/local-drug-supply/ for full results from all samples tested.

Why does this matter?

The drug supply is volatile and continuously changing. The mixing of drugs with or without the knowledge of people who are using drugs creates higher risk for overdose.

The July 2022 Pawtucket sample (reported to be sold as crystal meth) included fentanyl. Fentanyl exposure can increase the risk of drug overdose. The overdose risk increases in individuals who do not regularly use opioids and do not have tolerance. Naloxone will treat fentanyl, fentanyl analogs, and other opioid overdoses.

What we found:

Caffeine is often added to drugs as an active cut for stimulant effects.

Cocaine is a stimulant that can cause elevated blood pressure and fast heart rate. In overdose it can cause heart problems, seizure, stroke, and muscle and/or kidney injury.

Fentanyl is a highly potent opioid with high risk for overdose. In overdose it can cause problems with breathing and unresponsiveness.

Hydroxyzine is an allergy medication sometimes used as a sleep aid that can cause sedation.

Ketamine is an anesthetic that is similar to PCP. Ketamine is often used for its hallucinogenic effects. Ketamine can cause hallucinations, confusion, abnormal behavior, nausea or vomiting, and hypertension. Depending on the dose, it can also cause breathing changes, sedation, abnormal heart rate, seizures or abnormal heart rhythm. Chronic use has been associated with bladder and urinary tract problems.

Levamisole is a medication used to treat worm infections. It is a frequent cut found in cocaine. It can cause problems with blood cells, blood vessels, and/or lead to rashes.

Lidocaine is a local anesthetic/numbing agent (e.g., used in dentist offices and for topical pain relief). Lidocaine is a common cut in drugs. At standard doses it is safe, but in very high doses can cause heart problems and/or seizures.

Methamphetamine is a stimulant. Risks include heart problems (e.g., abnormal heart rhythm or rate, heart attack, heart failure), high blood pressure, hallucinations, psychosis, and kidney and/or muscle injury.

Phenacetin is a common cutting agent in drugs and is a pain reliever. With chronic exposure it can cause kidney and/or liver problems.

Xylazine is a veterinary sedative. Xylazine is a long-acting and sedating medication, but it is not an opioid. Especially if combined with other sedating medications it can cause unresponsiveness, low blood pressure, a slowed heart rate, and decreased breathing. Xylazine use has been associated with skin ulcers and infection. Chronic use can also lead to dependence and a withdrawal syndrome that can cause irritability, anxiety, and dysphoria.

For more information about all substances found visit PreventOverdoseRI.org/local-drug-supply/

How to reduce risk

Because the drug supply is always changing, it can be hard to know what you are buying. Testing your drugs first with fentanyl test strips can be a good first step.

Having naloxone (Narcan) with you is always important so you can respond to an overdose. It is also important to try not to use alone so someone can help you if you experience an overdose.

Start slow and go slow. Using a little bit of your drug at a time can be helpful to test the strength and keep track of your doses.

Try to avoid mixing depressants or downers, like benzos, opioids, and alcohol when you use. Mixing these can increase your risk of an overdose.



Xylazine Found in Samples from the Local Rhode Island Drug Supply

testRI is a two-year study to find out what is in the drug supply in Rhode Island and how changes to the supply are impacting people who use drugs in our community. We are testing used equipment, like pipes and syringes, that are collected from the community or donated by individuals or local organizations. Samples are tested using advanced confirmatory toxicology testing (LC-QTOF-MS).

Data from all samples tested in the study can be found on PreventOverdoseRI.org/rhode-island-drug-supply/

*Samples we have collected and tested only represent a small part of the local drug supply in Rhode Island and may not represent the broader drug supply in the state. Samples are also not being tested in relation to overdose so outcomes from use, like overdose, are unknown.

Xylazine:

Background:

Recently xylazine was found in multiple drug samples in Rhode Island. In some places, it is referred to as "tranq dope."

Xylazine is a long-acting and sedating medication used as a veterinary sedative, but it is not an opioid.

Xylazine has been associated with fatal and nonfatal overdoses both alone and in combination with other drugs (mainly fentanyl).

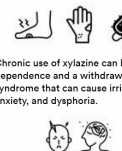
Health Effects:

Xylazine can cause drowsiness, unresponsiveness, low blood pressure, slow heart rate, and decreased breathing.



When used with other sedating drugs like opioids, xylazine can increase the risk of overdose and/or death.

Xylazine use has been associated with skin ulcers and infection.



Chronic use of xylazine can lead to dependence and a withdrawal syndrome that can cause irritability, anxiety, and dysphoria.

Why does this matter?

When xylazine is added to fentanyl/heroin the risk of overdose is higher.

Narcan (naloxone) will reverse the effects of opioids but has not been adequately documented to reverse xylazine's sedating effects. If a person overdoses from a substance cut with xylazine they might still be sedated after Narcan administration.



RIDOH Provider Advisory

July 15, 2022

Introducing testRI - A New Resource for Understanding Rhode Island's Local Drug Supply



The Rhode Island Department of Health (RIDOH), in partnership with Brown University School of Public Health, would like to introduce testRI, a two-year research study to find out what is in the local drug supply in Rhode Island and how changes to the supply are impacting people who use drugs in our communities.

How does testRI research work?

The testRI research team tests used equipment, like pipes and syringes, that are collected from the community or donated by individuals or local organizations.

Samples are tested using advanced confirmatory toxicology testing (LC-QTOF-MS). Data from all samples tested in the study can be found on Rhode Island's overdose information website and data dashboard, PreventOverdoseRI.org.



Toxicological and Ethnographic Drug Surveillance Testing RI

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Lessons learned & opportunities

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- Community partnerships are critical
- State and/or City Department of Health relationships can drive scalability (we're stronger when working together!)
- Stay nimble and be willing to iterate
- Rapidly communicating findings across multiple sectors (e.g., individual, community, healthcare, government) and in a variety of mediums is necessary
- Paper copies of testing results are sometimes better than email/phone/text
- We have to better support people who use drugs in policy and in harm reduction service access (including overdose prevention centers and drug checking services)

Thank you!

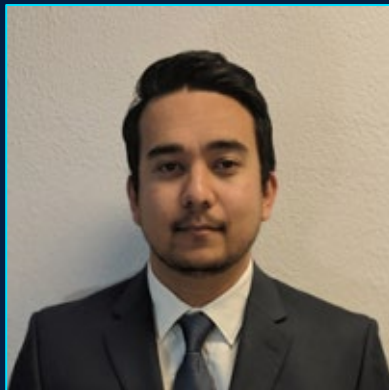
Twitter: @testRI drugs
Data repository: testri.org

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Syndromic Surveillance to Prevent Overdose in Lowell, MA: Data to Action and Evaluation (STOP-OD Lowell)



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Shikhar Shrestha, MS, PhD
Assistant Professor
Tufts University

The Cocaine Was Laced With Fentanyl. Now Six Are Dead From Overdoses.

The deaths over three days in Suffolk County reflect a dangerous shift in the street-drug marketplace, according to police and prosecutors.

Three New Yorkers Ordered Cocaine From the Same Delivery Service. All Died From Fentanyl.

Cocaine, long popular among New York professionals, is now often tainted with fentanyl, catching users unprepared and driving drug fatalities

Police say 10 people died in fatal fentanyl overdoses in Northeast D.C.

Authorities have tied lethal drugs to a single batch sold in Trinidad and Ivy City

More than 90 people overdosed on K2 in one New Haven park



Alert

WARNING: Spike in opioid-related overdoses in last 48hrs in Norfolk

Simcoe, ON (May 2, 2020) - Based on information from local OPP, there have been six non-fatal and one fatal overdose within the last 48 hrs in Norfolk County. The cause of this trend remains uncertain. However, the local health sector and law enforcement will continue to monitor, investigate and respond where required. If you or someone you know uses drugs, remember the following:

The 4 C's for Safer Drug Use

- **Careful use** – don't use alone, go slow by testing effect with small amounts first
- **Carry naloxone** – see locations below to get a kit
- **Call 9-1-1** for every overdose. You, your friend or family member need additional medical care, even when naloxone is used.
- **CPR** – push hard, push fast

Signs of an Opioid Overdose:

- Person cannot stay awake
- Body is limp, will not respond to noise or stimulation
- Slow or no breathing, gurgling
- Pupils are pinpoint or eyes rolled back
- Slow or no pulse
- Skin looks pale or blue, feels cold

Get a naloxone kit:

Halifax and Norfolk Health Unit:

Harm reduction supplies and naloxone available 5 days/week Mon- Friday 8:30am-4:30pm

12 Gilbertson Drive, Simcoe, 519-426-6170 ext 3284

Due to recent spike, harm reduction supplies and naloxone available this Saturday May 2nd and Sunday May 3rd, 2020 from 09:00am-06:00pm. Call or text 905-379-8891 to connect with a nurse to request supplies.

The AIDS Network Harm Reduction Outreach program Call or Text 289-440-4912

For more information visit the HNHU website: <https://hnhu.org/opioids/>

Public Alert: Spike in opioid-related emergencies continues

EDMONTON - Alberta Health Services (AHS) is issuing a second warning about the dangers of illegal drugs, particularly carfentanil.

In the last week of May and first week of June, there were 16 deaths where carfentanil has been identified in a preliminary analysis, 14 of which were in Edmonton Zone and two north of Edmonton.

This is the second warning within two weeks that illegal drug is circulating. AHS is urging purchasing and using illegal drugs.

Public Safety Alert

The LPD has recently noted a surge in suspected opioid related overdose deaths in Lowell over the last few days. Specifically, there have been 4 suspected opioid related overdose deaths in the last 24-36 hours. If you or a loved one are suffering from addiction, please be extra vigilant.

Do not use when you are alone, check on loved ones frequently, and call 911 immediately if you witness an overdose.

You are not alone, if you or a loved one need help, please contact the Lowell Community Opioid Outreach Program (CO-OP) at 978-631-7240.



08/11/2019

Public Health Alert: Overdose Activity

Dear Colleagues,

Yesterday, we observed an elevation in two measures – emergency department (ED) visits and 911 dispatches – used to estimate opioid overdose activity in Hamilton County. The ED visit count surpassed statistical thresholds for expected counts when fourteen overdoses were observed during the period of 6 am August 10th to 6 am August 11th. The 911 dispatch counts also surpassed the statistical threshold with a value of eighteen during this same period. Out of caution and to provide situational awareness, we are issuing an alert regarding this increase in overdose activity in the county.

Local public health partners and the Hamilton County Heroin Coalition are issuing this alert to increase community awareness and advise first responders, healthcare providers, and substance users and their families of the increased risk for overdose in our community. This alert should serve as a notice to consider adjusting response capacity and implementing necessary protective measures which should include:

- Do not field test drugs or injection equipment.
- Have available and use necessary personal protective equipment (including gloves and respiratory protection); for detailed guidance see: <https://cde.gov/tox/topics/fentanyl/risk.html>.
- Carry extra doses of naloxone (Narcan) and administer multiple doses, if necessary.
- Administer naloxone for drug overdoses even when non-opioids indicated. Naloxone is sold over-the-counter in pharmacies throughout the area. Hamilton County Public Health through the Narcan Distribution Collaborative will also provide free Narcan after a brief training. For more information, please visit: <https://www.hamiltoncountyhealth.org/ham-reduction/narcan/>.
- If you are a user, do not use alone.
- Avoid mixing drugs (including alcohol) which increases the risk of overdose.
- Call 911 after every overdose, even if naloxone has been used.
- If you are a user, do not leave the ambulance or hospital against medical advice after naloxone has been administered to reverse the overdose. The naloxone may wear off before the opioids wear off – and you could go into overdose again.
- For referral to addiction treatment services, please call 513-281-7880 or visit www.findlocaltreatment.com.

Currently, we do not know what may be driving this recent change in activity. However, the increased risk is evident and drawing upon recent past increases in activity, a change in the composition of illicit street drugs in our community is likely (including mixtures of opiates, fentanyl, carfentanil, and other synthetics).

We appreciate your continued collaboration.

Project Purpose and Goals:

Statement of Problem

Efforts to reduce opioid related incidents (ORIs) rely on:

- Rapidly detecting clustered exposures and ORIs tied to fentanyl and other drug adulterants, and
- Efficiently facilitating communications between public health and safety officials and vulnerable community members

Limitations to current systems

- Current surveillance methods and subsequent communication alerts to community members are reactive in nature
- Lack of a systematic information dissemination strategy for ORI alert

Project Purpose and Goals:

Statement of Problem

- **Objective 1:** Improve syndromic surveillance in Lowell by reducing the response time to ORI spike detection by 50% to facilitate rapid dissemination of information and targeted responses by local public health and safety authorities.
- **Objective 2:** evaluate the communication channels through which ORI spike alerts are transmitted and their overall reach.
- These findings will inform our work with stakeholders to optimize communication channels by streamlining data-to-action flows, creating concrete response programs, and ensuring alerts are being transmitted directly to the most vulnerable community members.

Collaboration and Research in Lowell

Lowell Peer Education and Risk Reduction Study (Lowell PEERRS)

- Initiated first brick and mortar SSP in Lowell
- Piloted peer educator model to reduce injection mediated risks
- Constructed GIS maps and ran spatial analyses to assess geospatial risks for OD



Collaboration and Research in Lowell

Collaborative work with key partners that built rapport since 2018

- Life Connection Center: Jaime Dillon, ED
- Trinity EMS: Jon Kelley
- Lowell Public Health Department: Lainnie Emond
- UMass Lowell: Wilson Palacios

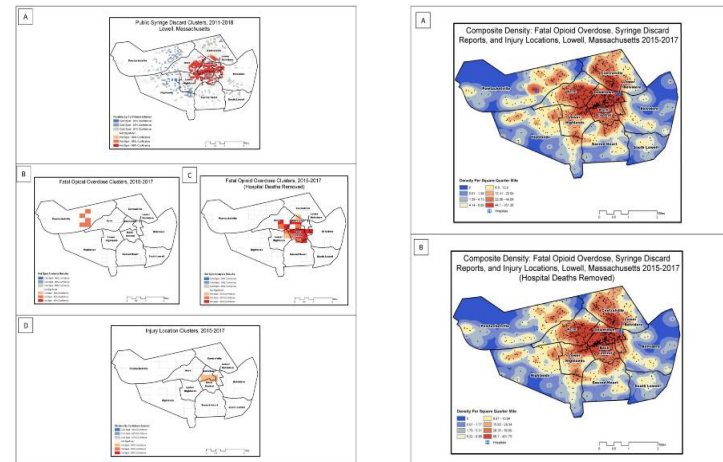
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FULL TEXT ARTICLE

Examining the spatial risk environment tied to the opioid crisis through a unique public health, EMS, and academic research collaborative: Lowell, Massachusetts, 2008–2018



Thomas J. Stopka, Erin Jacque, Jon Kelley, Lainnie Emond, Kerran Vigroux and Wilson R. Palacios
Preventive Medicine Reports, 2021-12-01, Volume 24, Article 101591, Copyright © 2021 The Authors





Research Methods and Findings

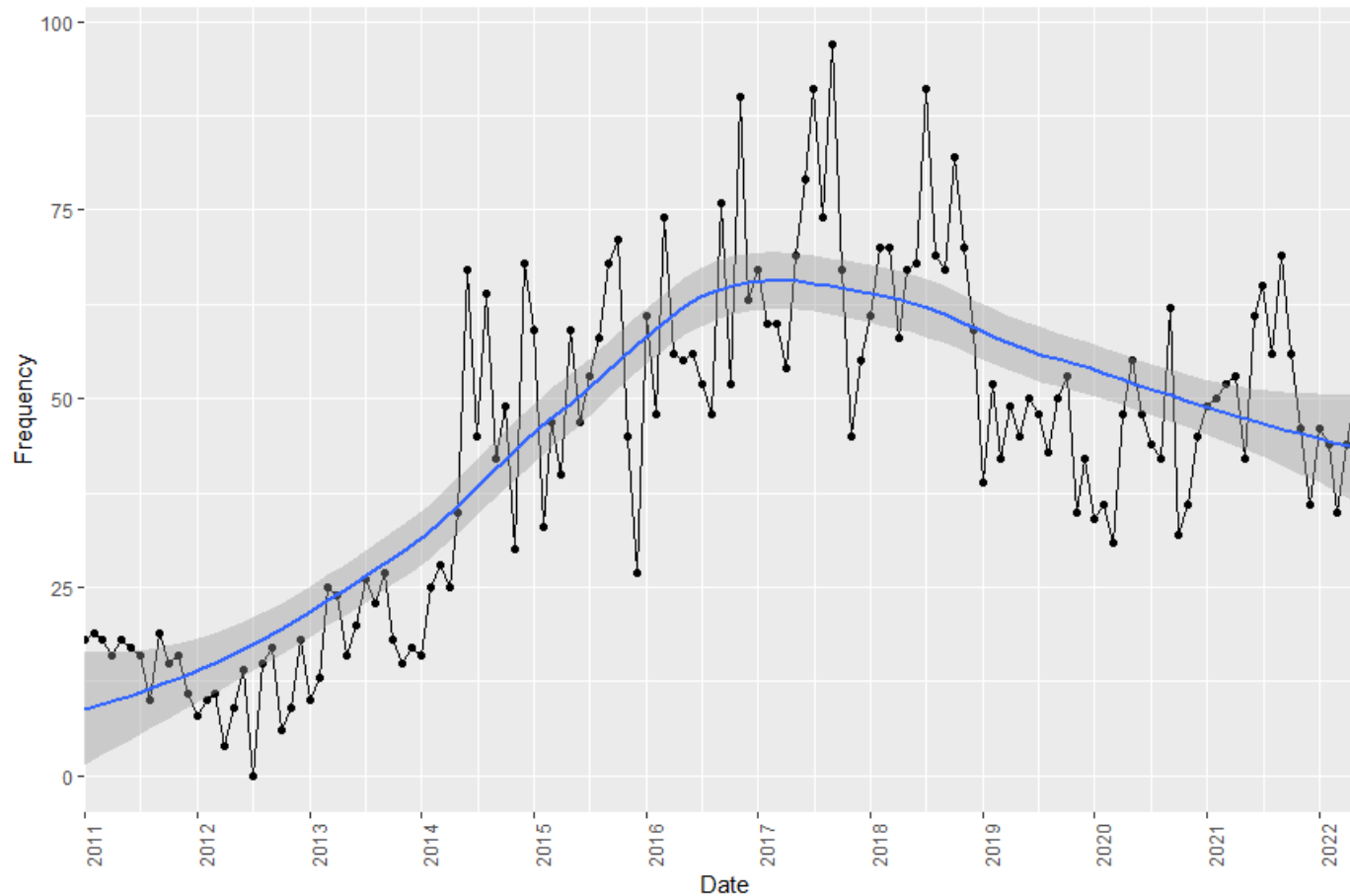
Objective 1: ORI Spike Detection Modeling

- **Data Source:** Trinity Emergency Medical Services (Data from Jan 2011 – July 2022)
- **Identification of Opioid Related Incidents in Lowell MA**
 - Combination of Priority Codes, Complaint Codes, Nature, naloxone codes
 - Geocoding of incident location, filtering ORIs to Lowell, MA
- **Data analysis**
 - *Regression Modeling of Cumulative incidents in 72 hours, 48 hours, 36 hours as a function of historical observations/trends, frequency of recent events, and spatial distribution of recent events.*

Research Methods and Findings

Objective 1: ORI Spike Detection Modeling

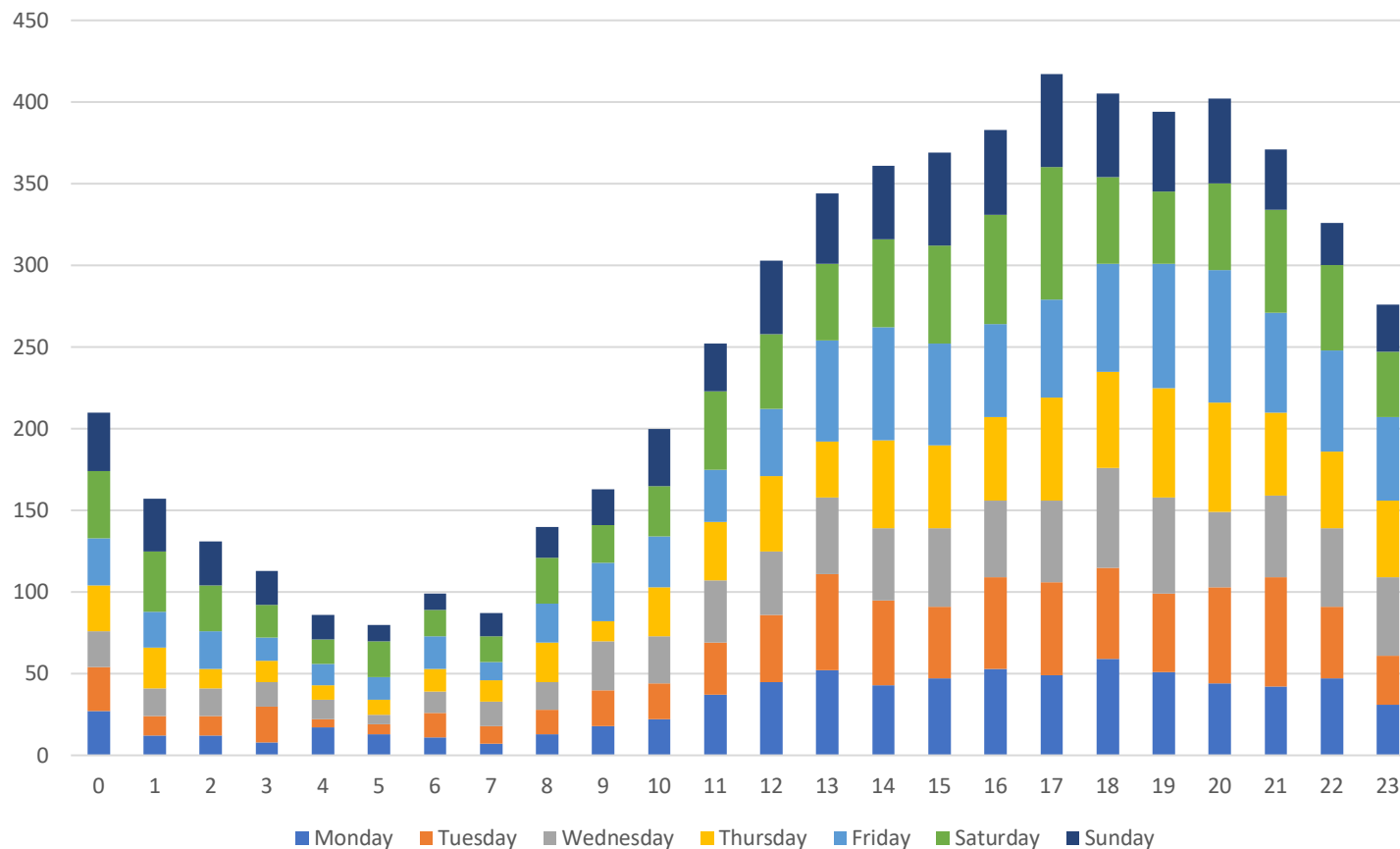
Figure: Opioid Related Incidents in Lowell, MA (2011-2022)



Research Methods and Findings

Objective 1: ORI Spike Detection Modeling

ORI by Day of Week and Time, N=6069



Preliminary Findings: Predictive models

We predicted cumulative ORI cases > 10 in the last 72 hours using the following predictors

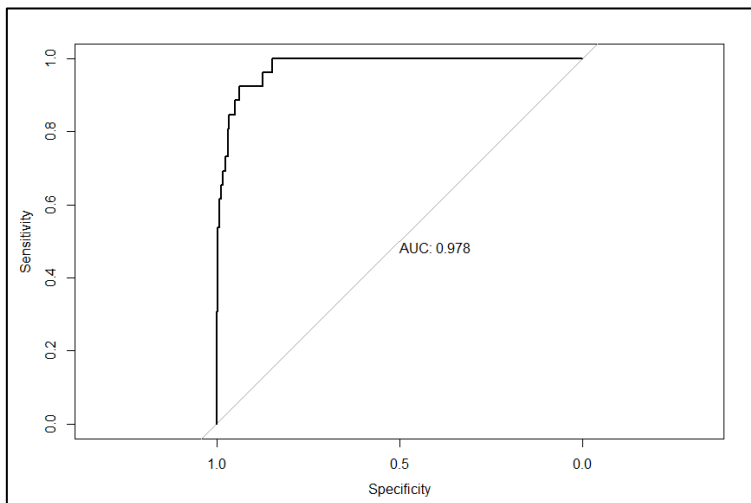
- 1) Cumulative cases in the last 48 hours
- 2) Minimum area that enclosed the ORI cases that happened in the past 48 hours
- 3) Other space and time covariates

Hypothesis: *Events that are closer in time and space are more likely to be related to each other, therefore ORI cases that cluster in space are predictive of an ORI spike*

Preliminary Findings: Predictive models

Preliminary results:

- 1) The number of ORI cases that were detected in the last 48 hours were strongly predictive of ORI cases in the last 72 hours >10
Early decision making could help reduce more ORIs
- 2) We observed a large variation in the effect of time (both at a micro and macro scale)
- 3) Preliminary models had $AUC > 95\%$ and a balanced accuracy of 82%
- 4) Sensitivity analysis for the cut-off of 14 and 18 ORI cases had limited interpretation as those events were rare



Next steps:

- 1) Model tuning (parameters for distance)
- 2) Automation for model update and alert generation
- 3) Integration into the current alert system

Research Methods and Findings

Objective 2: Evaluation of ORI communication channels

There is limited evidence on how a community responds to increases in opioid overdoses

Understanding how information is being identified, shared in a network and how it is used can be critical in developing an alert system

To understand the communication systems and information flow of opioid overdose spikes we have planned:

1. Key informant interviews with opioid stakeholders (Department of Public Health, Emergency Response Services, Harm Reduction Program, Substance use Treatment Program, Outreach Workers) **(12/15 completed)**
2. Key informant interviews with people who use drugs **(15/15 completed)**
3. Baseline survey of approximately 100 PWUD **(Beginning Dec 2022)**

Research Methods and Findings (Preliminary)

Objective 2: Evaluation of ORI communication channels

Stakeholder KII Emerging Themes			
Theme Category	Emerging Theme	Support Quote 1	Support Quote 2
Current ORI Alert System	Lack of knowledge of formal ORI system	"I've never heard of any, like, formal, like, spike system that, you know, notifies us. I think, you know, we're out on the road, so we, we sometimes kinda just notice it ourself." - KII 9	"I didn't even know, if I'm being honest, that there really was, like, a spike alert like that." - KII 7
Hidden Populations	Residential Areas or Individuals living alone	"Um, I think we could get the word out more. Um, I think to residential places that would be better. Um, the people we work with on the streets, that's easy to make them aware. Um, getting it into residential areas would, I think, would be helpful." - KII 10	"We have people that are never gonna talk to someone like me, you know, 'cause they're housed, and they're doing their, you know, they go to their job and they come home and then they're using drugs with their friends or whatever." - KII 12

Research Methods and Findings (Preliminary)

Objective 2: Evaluation of ORI communication channels

Stakeholder KII Emerging Themes			
Theme Category	Emerging Theme	Support Quote 1	Support Quote 2
Communication Methods	No wrong way to spread messages	"I don't think there's anything that should be not utilized. You know, like, whatever they're doing I think they should continue doing, and add more to it, not take away from, like, I don't, I can't really think of anything, like, negative, like, that should be taken away from it, you know?"- KII 5	"I can't think of a message that would be wrong or a mode that would be wrong. Social media. Posters on, on telephone poles. Uh, emails to important community members. There, I don't think there is a wrong way to send a message about there's something deadly in our, our supply, especially deadly. It's always deadly, but especially so. There's no wrong way to reach people." - KII 4
Communication Methods	Importance of word of mouth	"usually, the clients, the public almost finds out through word of mouth, not really through any system" - KII 7	"the word spreads really quick throughout the community, that, you know, this batch is bad. Or whether they got from this guy here, or he got it from this guy here. And it, it kind of goes through the community they know." - KII 1
Communication Methods	Text/Phone Alerts (reverse 911, amber alerts, etc.)	"Um, when I worked down Cape, we used the reverse 911 service. Um, that was super effective for any type of event or, um, OD search that we had." - KII 10	"I don't know if there's some type of way for people to sign up onto text alerts or something that, um, as someone who doesn't really use social media that much, that might be something." - KII 9

Research Methods and Findings (Preliminary)

Objective 2: Evaluation of ORI communication channels

PWUD KII Emerging Themes			
Theme Category	Emerging Theme	Support Quote 1	Support Quote 2
Response to ORI alert	Increase in drug seeking behavior	“So I mean, there are a few people that, like, they're careful and they don't wanna overdose. But, for the most part, they want the, the drug that people are overdosing on.” (KII)	“Um, people who use, when they hear about increased overdoses, they wanna know where they got the drugs from. Because they want, they see as, like, someone overdosing on someone as the dope being really good. So they want that dope. And, like, that's pretty much how people react. Like, it's, they should be like, "No, I don't wanna do it." But they want it...” (KII)
Increased overdose risk	Individuals with "clean time"	“Everyone, honestly, everyone I heard overdosing is mostly not people who have, using, like, every day. It's people who have, like, clean time, or they went to jail and they wanna use.” (KII)	“I feel like honestly, like, 90% of the people I know who overdose, it's because they had clean time.” (KII)

Research Methods and Findings (Preliminary)

Objective 2: Evaluation of ORI communication channels

PWUD KII Emerging Themes			
Theme Category	Emerging Theme	Support Quote 1	Support Quote 2
Trusted Sources of Information	Police	<p>"And then I was talking to a cop and the cop says there's overdoses a lot, bro. Just a lot. He didn't give me a number but he's like, "This month there's a lot of overdoses." And he's warning us to be careful because, um, people are putting stuff in the drugs." (KII)</p>	<p>"You know, like, you know, we get to know the cops out here, you know, they're walking the beat all summer, you know. "Hey, what's going on, Officer you know, so and so." Um, and then, you know, one, be like, "Hey, what's going on Officer so and so?" "Hey, listen, and come here for a minute." They'll go, "What's up?"</p> <p>"There's real bad shit going on, you know, going around...You're gonna do it anyways, so, uh, we're just asking you if you could please, you know make sure that you do a test shot first."(KII)</p>
Trusted Sources of Information	Local Agencies/Outreach Workers	<p>"I just heard of that at the clinic. See, I get a lot of my information through the clinic, and like the needle exchange, and people who just use, other addicts." (KII)</p>	<p>"Um, definitely like the people that work here and the other shelter. And the outreach, like all the- the recovery cafe- all the people who work in this sorta industry in Lowell. You know, working at programs and stuff."(KII)</p>

Research Methods and Findings (Preliminary)

Objective 2: Evaluation of ORI communication channels

PWUD KII Emerging Themes			
Theme Category	Emerging Theme	Support Quote 1	Support Quote 2
Communication Methods	Word of Mouth	"Um, I pretty much trust word of mouth. Like, I, people usually don't lie about overdoses." (KII)	"I was going to buy dope at Jay's Convenience Store and, um, one of the kids came over to me and was like, "I, I don't think you should buy that stuff because, um, two days prior, um, a girl overdosed from it. It's, like, super strong." Everybody's like, "If you're going to buy it, just be very careful." But they, they let you know." (KII)
Communication Methods	Flyers	"I would like to know, yeah. Um... you know, maybe put, like, a, a notice up, you know what I mean? Like, on the window here or something." (KII)	"Just like you guys do, just with the- the flyers at the needle exchange windows and whatnot" (KII)
Communication Methods	Text/Email Alerts	"I think that would be cool. Like sort of like an amber alert type of system, like this part, in this area beware. Maybe that'd be cool if they did like sort of like a something alert." (KII)	"Um you know, why not be a text message? That's a broad way to get the message out to everybody" (KII)
Communication Methods	Facebook Messenger	"A lot of people, like, who are out on the street, are using, they don't have phones. Like, or active phones. So Facebook Messenger, you can get on if you, like, go on someone's wifi" (KII)	"I don't know, but that would be, that would be something fantastic. Like, if I got a, you know, like a notification on my, on my Facebook with something saying that there was. That, that would be really cool." (KII)

Lessons Learned and Opportunities

Importance of collaborative research

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- Integration of community organizations, public health department, first responders and other organizations who work with PWUD is critical
- High success with organizations that were supportive of our research
- Challenges in getting buy-in from some stakeholders

What is working?

- Strong research partnership
- Feedback from KII (both stakeholders and PWUDs) in shaping the alert system
- Collaborators and their connection have been vital in forging new relationships
- Feedback on the alert system, design, impact

Lessons Learned and Opportunities

What isn't going as planned?

- Buy-in/ support from some organizations has been limited
- Challenges inherent in using Emergency Medical Services data to identify ORIs
- Challenges with recruitment/interviews of PWUDs

What are the opportunities?

- Integration of drug testing
- Study of non-opioid users/recreational use of other drugs
- Development of methods to identify ORI cases using an automated system with high precision

Study Team Members

- Shikhar Shrestha, MS, PhD
- Jennifer Pustz, PhD, MS
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Questions?



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Take Care of Yourself!
Thank You For Your Work!



About the Foundation for Opioid Response Efforts

The Foundation for Opioid Response Efforts (FORE) was founded in 2018 as a private 501(c)(3) national, grant-making foundation focused on addressing the nation's opioid crisis. FORE is committed to funding a diversity of projects contributing solutions to the crisis at national, state, and community levels. FORE's mission is to convene and support partners advancing patient-centered, innovative, evidence-based solutions impacting people experiencing opioid use disorder, their families, and their communities.

For more information on FORE, please visit www.ForeFdn.org.

About the Agency for Substance Abuse Prevention

ASAP is dedicated to strengthening community awareness through substance misuse education and prevention services to individuals, schools, industries, affected individuals and families residing in the State of Alabama. ASAP provides a variety of support groups, awareness programs, workshops, and training.

For more information, please visit <https://asaprev.com/>.

About the University of Massachusetts Dartmouth College of Nursing & Health Sciences

The College of Nursing & Health Sciences at UMass Dartmouth offers nationally recognized, comprehensive programs in nursing and medical laboratory science. The college serves as the administrator of the University Lead Poisoning Education Project. This project, which is federally and state funded, educates, inspects, and supports lead abatement processes. The college also oversees the Gerontology minor and certificate programs.

For more information, please visit <https://www.umassd.edu/>.





About the Brown University School of Public Health

Through teaching and research, the Brown University School of Public Health trains future public health leaders, advances knowledge on pressing health challenges, and enhances population health and well-being for all. Its mission is to improve the health of all populations, especially those most vulnerable, by producing world-class public health scholarship, forging strong community partnerships, and educating the next generation of diverse public health leaders. With \$64 million in annual external funding, the Brown University School of Public Health ranks among the top ten schools of public health for NIH funding. The School of Public Health's nationally-renowned research centers and institutes focus training and research on key areas including addiction, HIV/AIDS, global health, environmental health, aging, maternal and child health, and health data science.

For more information, please visit <https://www.brown.edu/academics/public-health/>.

About Tufts University

Tufts University is a world-class private research university in Greater Boston. Tufts is a research university committed to helping students and faculty generate bold ideas, innovate, and become active citizens of the world. At Tufts, researchers attempt to unravel the most complex challenges facing humanity, bettering understanding of the world. Innovative thinkers from schools and departments across Tufts work together at centers and institutes to tackle global challenges, advance learning and education, and build knowledge to better the world. From fighting zoonotic diseases to developing renewable energy solutions, Tufts' research priorities are ambitious and imaginative, producing knowledge and understanding that resonate on a global scale.

For more information, please visit <https://www.tufts.edu/>.



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