Governor Raimondo's Task Force on Overdose Prevention and Intervention

January 9, 2019

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WELCOME & ANNOUNCEMENTS

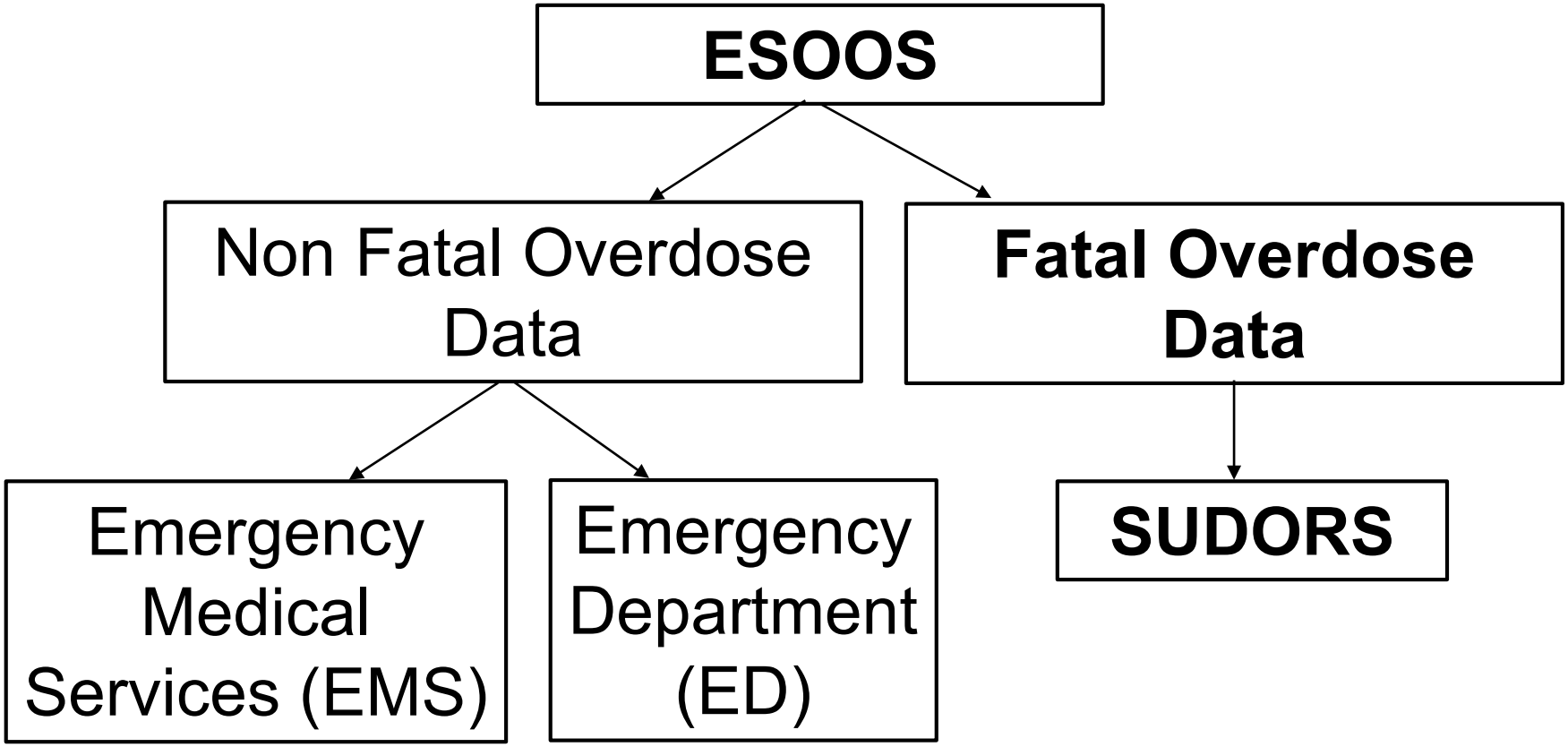
Rhode Island's State Unintentional Drug Overdose Reporting System (SUDORS) Data July 2016 – December 2017

Governor Gina M. Raimondo's Overdose Prevention and Intervention Task Force

January 9, 2019

What is SUDORS?

Funded as part of the Enhanced State Opioid Overdose Surveillance (ESOOS) grant (2016)



SUDORS Versus Medical Examiner Fatal Overdose Data

SUDORS

Unintentional or undetermined drug overdose deaths occurring in Rhode Island

Info from various sources entered into Rhode Island Violent Death Reporting System (RIVDRS) overdose module

Office of State Medical Examiner (OSME)

Accidental (unintentional) drug overdose deaths occurring in Rhode Island

Captured in OSME data system

Beginning March 2019: *PreventOverdoseRI.org will use SUDORS for death data.*

What Data Are In SUDORS?

- Demographics and toxicology

PLUS

Circumstances surrounding death:

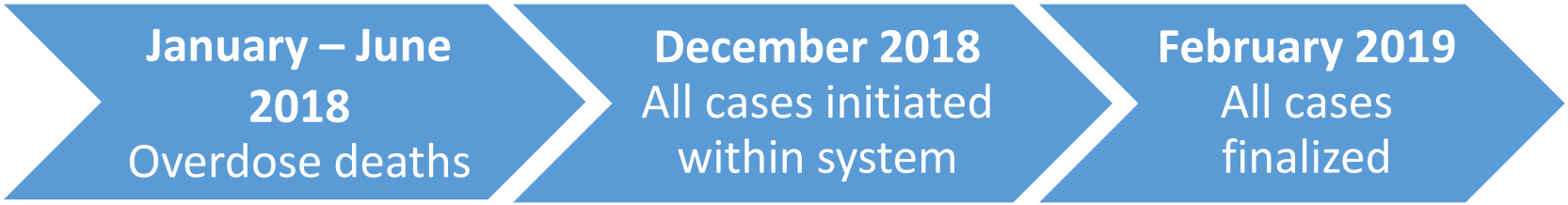
- Mental health/Substance Abuse History and Status
- Job/Financial/Housing/School problems
- Relationship problems
- Physical health problems/pain
- History of institutionalization

Overdose module specific information:

- Administration route
- Naloxone administration
- Bystander presence
- Rhode Island Prescription Drug Monitoring Program Data (PDMP)

SUDORS Data Timeline

- July 2016 – December 2017 finalized
- January – December 2018 provisional



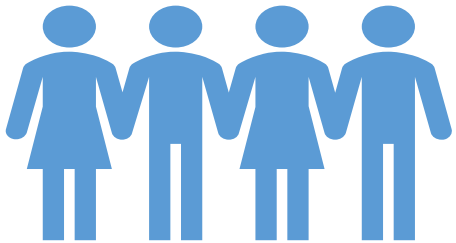
- Data abstracted from multiple sources by team of trained abstractors and entered into RIVDRS

Primary Data Sources	Secondary Data Source

• OSME Records
  • May contain EMS run reports and medical records
  • Toxicology
• Death Certificate
	• Law Enforcement records

What SUDORS Tells Us

430 unintentional or undetermined **opioid-involved** drug overdose deaths occurred in Rhode Island from **July 2016 to December 2017**.

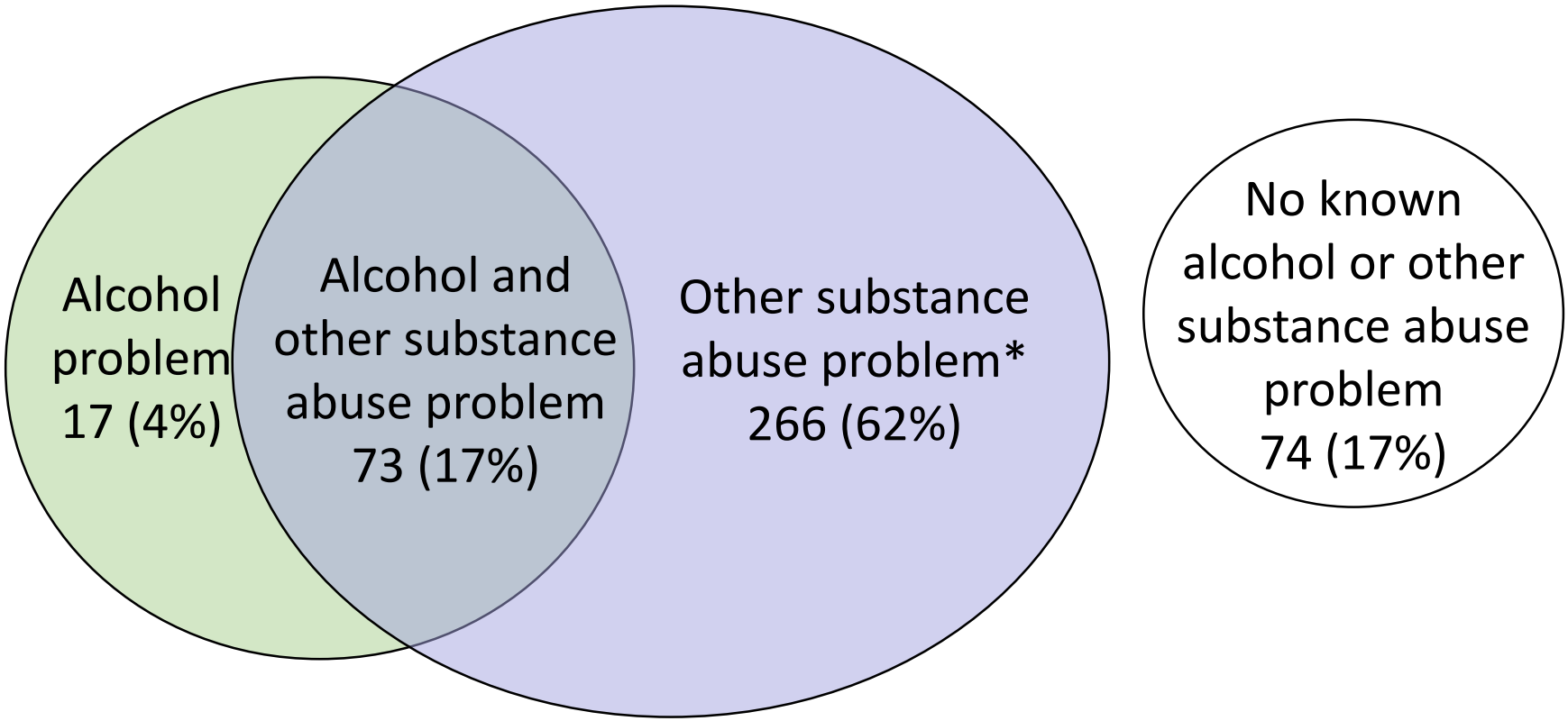


SUDORS recorded information on **at least one known circumstance** surrounding the victim's death for **95%** of deaths in the time period.

Data updated as of October 3, 2018

SUDORS: Substance Abuse

Of the 430, **356 (83%)** of victims had **either** a known **alcohol problem or other substance abuse problem.**



**Other substance problem is defined as victim was perceived by self or others to have a problem with a prescription or illicit drug.*

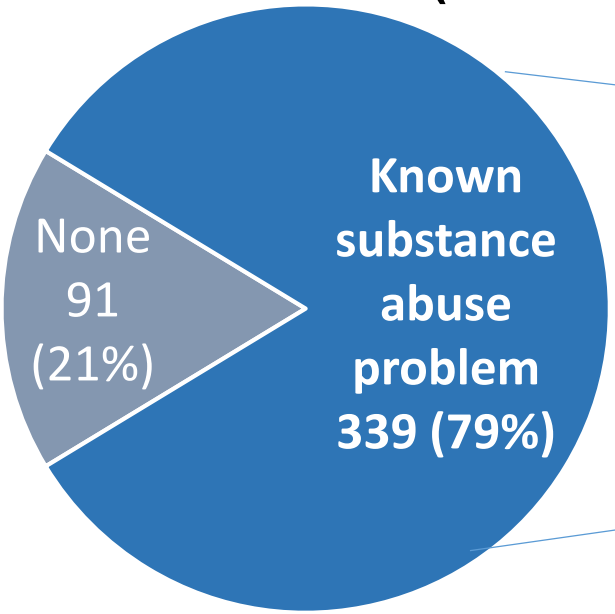
Data are updated as of October 3, 2018

SUDORS: Substance Abuse

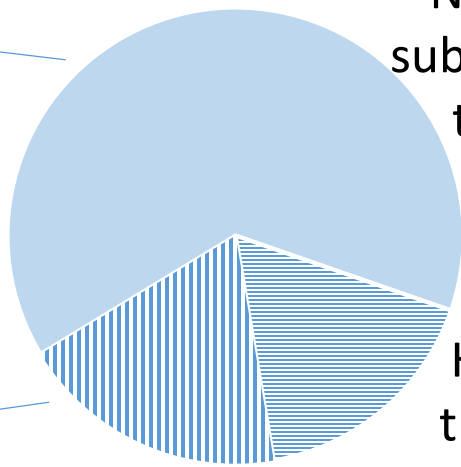
Of the 430, **339 (79%)** victims had a known **non-alcohol, substance use problem**.

- **73 (22%) also** had a known problem with **alcohol**.
- **121 (36%)** had ever received substance use **treatment** (current or past).

Substance Abuse Problem Non-Alcohol (n=430)



Substance Abuse Treatment History (n=339)



No history of substance abuse treatment: 218 (64%)

History of treatment, not current: 58 (17%)

Current substance abuse treatment: 63 (19%)

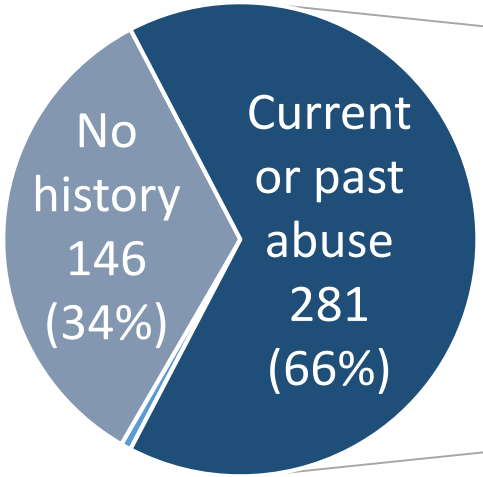
Data are updated as of October 3, 2018

SUDORS: History of Heroin/Opioid Use

Of the 430, **281 (65%)** of victims had a **known history** of heroin or opioid abuse or misuse

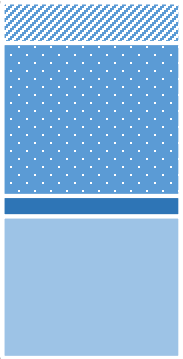
- **55 (20%)** of these **ever** previously overdosed
- **73 (26%)** of these abstained from using opioids for at least one week, and **returned to using opioids** prior to fatal overdose

History of Heroin/Opioid Abuse/Misuse (n=430)



Missing (<1%)

Substance Type (n=281)



Rx opioids: 32 (11%)

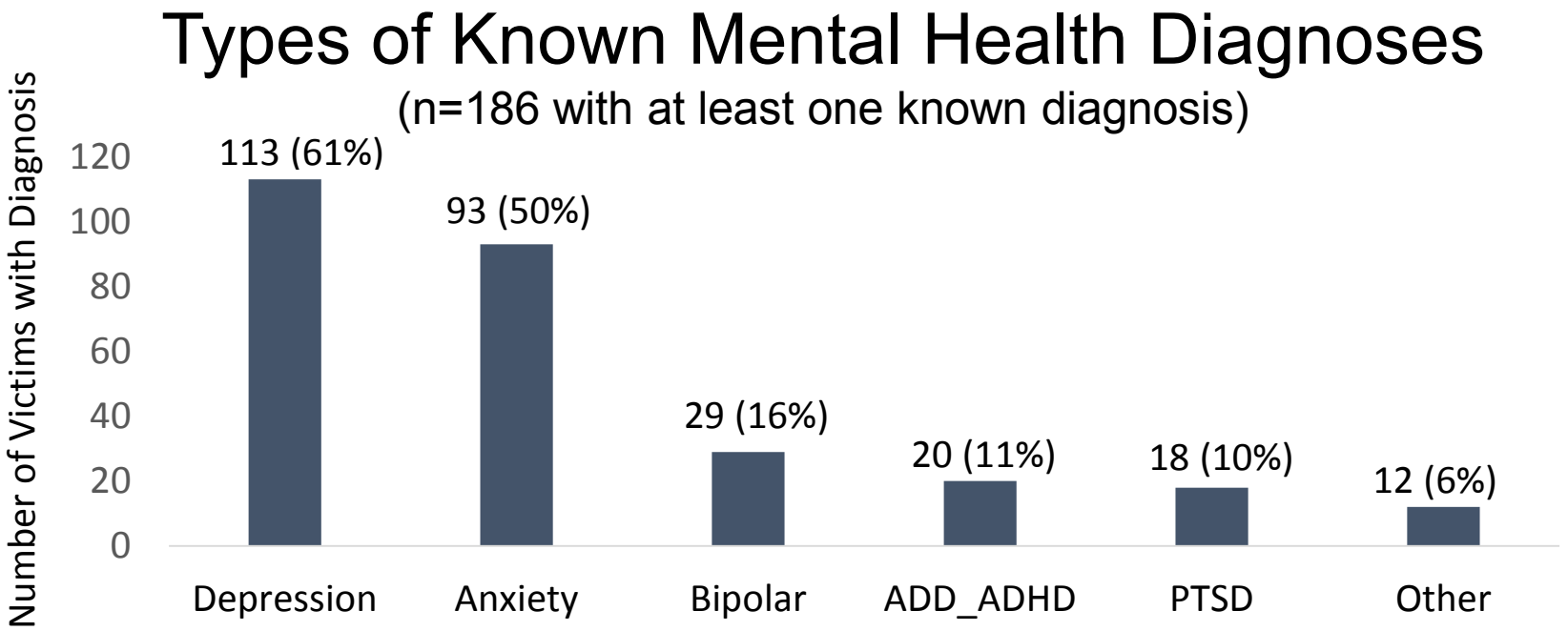
Heroin: 121 (43%)

Rx opioids and heroin: 16 (6%)

Specific substances unknown: 112 (40%)

Data are updated as of October 3, 2018

SUDORS: Mental Health



*Counts are not mutually exclusive, victim may have more than one diagnosis. Categories with less than five not shown.

200 of the 430 **(47%)** were known to have a **current mental health problem**.

- **192 (96%)** of these were receiving **current mental illness treatment.**

Data are updated as of October 3, 2018

SUDORS: Future Steps

Overarching question

- What characteristics/risk factors are associated with fatal and non-fatal overdoses?

Other analyses

- Deep dives of specific variables and topics
- Linking non fatal and fatal data

Data dissemination

- Reports, testimonials, and presentations
- Additional data coming to PreventOverdoseRI.org
- Updating the Rhode Island Department of Health's website

Thank you

- Office of State Medical Examiners
- Karen Foss and Shannon Young, JSI
- Samara Viner-Brown, Leanne Lasher, Sandra Powell, RIDOH
- Annemarie Beardsworth, Jenn Koziol, Meghan McCormick, Dahianna Lopez, Dr. James McDonald, RIDOH

Questions?

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Welcome to Behavioral Health Link (BH Link)

A PARTNERSHIP BETWEEN BHDDH, HORIZON HEALTHCARE PARTNERS, AND COMMUNITY CARE ALLIANCE

Behavioral Healthcare in Rhode Island

- Needs assessments, analysis from Harvard Kennedy Center, EOHHS and Truven Report show need for crisis services and more community-based services.
- BHDDH is single state authority for mental health and substance use.
- New focus from CMS and SAMHSA
  - Improving Access: extended hours; accessible locations; transportation; outreach and engagement to serve high utilizers, homeless, those with criminal justice issues; timeliness of screening, evaluation and provision of services to bring people into services when they are ready; 24/7 crisis services with mobile component.

BH Link Services

24/7 Behavioral Health crisis response being implemented by Horizon Health Partners with three major components:

1. Physical location triage facility
    a) 24/7 face to face assessments
    b) 24/7 phone screening and triage
    c) Nursing and psychiatric assessments
    d) Clinical services including Rx and pharmacy
    e) Recovery support (provided by peers) and case management
    f) Transportation and linkage related to post-stabilization services
    g) Recovery house eligibility and application
2. Hotlines: Suicide line, State warm line (942-STOP), After hours incident reporting for Behavioral Health: BH LINK (414-LINK, 414-5465)
3. Mobile capacity

Media Campaign (Nov. – Feb.)

On-Line

- Display
- Connected TV
- Site Retargeting
- Paid Search
- Facebook

Traditional Media

- Bus (interior and exterior)
- Radio
- TV (Bookends)

For Distribution

- Palm Cards
- Tri-Folds
- Posters

The first three weeks of the digital campaign has directly generated 3,625 sessions on the BHLink.org website

- The videos we've been running on digitally streamed TV (separate from the broadcast and cable campaign) have been viewed 111,000 times
- Overall, the digital campaign has had 1.2 million impressions and generated 4,000 clicks.
- Paid search advertising has driven over 1,000 clicks


YOU ARE NOT ALONE.
If you or someone you love is going through a mental health or substance use crisis, there is information, there is compassion. There is help.
(401) 414-LINK
5465
BEHAVIORAL HEALTH
LINK
bhlink.org

BH Link Anticipated Walk-In and Call Volume

Client Volume Triage Center

	FY2019								FY2020				
	November	December	January	February	March	April	May	June	July	August	September	October	Average
days in month	30	31	31	28	31	30	31	30	31	31	30	31	**27.83**
Monthly volume	150	186	217	224	279	300	310	300	310	310	300	310	**240.50**
Daily volume	5	6	7	8	9	10	10	10	10	10	10	10	**7.92**

Call Volume BH Link Hotlines

	FY2019								FY2020				
	November	December	January	February	March	April	May	June	July	August	September	October	Average
days in month	30	31	31	28	31	30	31	30	31	31	30	31	**27.83**
Monthly volume	1140	1178	1178	1064	1178	1140	1178	1140	1178	1178	1140	1178	**1057.67**
Daily volume	38	38	38	38	38	38	38	38	38	38	38	38	**34.83**

Type of call:	Ave #/day
Emergency Services	26
Hope and Recovery	7.5
DD Hotline	0.5
Suicide Hotline	4

Start-up

Full capacity

Utilization results to date (Nov. – Dec., 2018)

Around 60%of face to face intakes are male and SUD, many are COD.

BH Link Face to Face Assessments		148
BH Link Line (Recovery excluded)		**432**
	Crisis Calls	263
	Information	138
	Hotline	31
	Recovery Line	1426
Total	(Recovery included)	**1858**

Note: Approximately 10% of recovery line calls are new calls asking for assistance, others are calls to determine where a person stands on the waitlist

Performance and Process Data

- # of first appointment contacts made to community-based providers
- # of first appointments kept (will require tracking and follow up from program staff)
- Referral source (how the client was referred to BH Link)
- Referral to program at discharge
- # of clients seen each month
- # of individuals seen at the BH Link
- # of individuals seen in the community by BH Link staff

- 90% of individuals requesting a face to face evaluation will be seen within 1 hour of presentation
- 90% of individuals that can be referred to community services will receive referral within one business day
- 90% of individuals calling the helpline will be responded to within 10 minutes of all requests.
- 90% of individuals seeking onsite nursing assistance will be responded to within 10 minutes to all requests
- 90% of individuals seeking access to an emergency psychiatrist will be responded to within 10 minutes of all requests
- 100% of individuals needing emergency medication will receive required medication
- **Baseline**: Engagement rates as measured by % of patients who follow up with first appointment with community-based providers post discharge
- **Baseline:** % of patients who are readmitted to BH Link within a month

Data used for these analyses will come from BHOLD, MMIS and custom templates specific to the project pulled from vendor's EHR

Characteristics of Intake Clients

Insurance	N	%
MCO MEDICAID	58	48%
COMMERCIAL	29	24%
MEDICAID	11	9%
MEDICARE	11	9%
None	11	11%
Grand Total	**120**	**100%**

Note: totals here are based on data entry into BHOLD which is not as up to date as reporting from Provider directly to BHDDH

Town	N	%
Providence	18	15%
Unknown	18	15%
East Providence	16	13%
Pawtucket	15	13%
Cranston	14	12%
Warwick	9	8%
Warren	4	3%
Bristol	3	3%
South Kingstown	3	3%
Lincoln, Middletown, Narragansett, Scituate, Burrillville, Coventry, Cumberland, East Greenwich, Exeter, North Kingstown, North Providence, Portsmouth, Smithfield, West Greenwich, Westerly, Woonsocket	20	20%
Grand Total	**120**	**100%**

How People Are Linked

Referral from:	N	%
Self	51	43%
EMS	26	22%
BH Link Call	20	17%
Substance Use Provider	6	5%
Shelter	3	3%
Safe Station	3	3%
Mental Health Provider	3	3%
ED	3	3%
Police	2	2%
Health Care Provider	2	2%
Social Services Agency	1	1%
Grand Total	**120**	**100%**

Referral To:	N	%
MH PRIVATE PROVIDER	31	26%
IP DETOX	19	16%
ASU/CSU	17	14%
IP PSYCH	12	10%
CMHC	10	8%
MH PHP	7	6%
OP DETOX	7	6%
FQHC/CAP	6	5%
SUD PHP	3	3%
SUD RESIDENTIAL	3	3%
SUD GOP	2	2%
SUD IOP	2	2%
RECOVERY HOUSE	1	1%
Grand Total	**120**	**100%**

Note: totals here are based on data entry into BHOLD which is not as up to date as reporting from Provider directly to BHDDH

Outcome Data

Outcome/Expectation	Method	Source
Reduction in number and cost of ED visits	Examine ED visits prior to and after contact with BH Link	Medicaid claims
Reduction in number and cost of inpatient stays	Examine inpatient visits prior to and after contact with BH Link	Medicaid claims
Increase in access to/use of MH treatment services	Examine admissions to MH services after linkage from BH Link	Medicaid claims/BHOLD
Increase in access to/use of SUD treatment services	Examine admissions to SUD services after linkage from BH Link	Medicaid claims/BHOLD
Increase first appointment engagement rates	Monthly examination of % of patients who follow up with 1st appointment	BH Link monthly template
Reduce % of patients re-admitted to BH Link	Monthly examination of % of patients who are re-admitted to BH Link	BH Link monthly template
Increase in access to/use of recovery support services	Monthly examination of % of patients who follow up with 1st appointment	BHDDH RSS contract data/Medicaid claims

What difference does this type of Crisis Model make?

"The person I referred to BH Link called me today. She got out of the ASU, and is heading home. She thanked me profusely for referring her to BH Link. She said they were supportive non-judgmental, and non-threatening. In the past, she has been in the ER when she was in crisis, and she said BH Link was much better…."

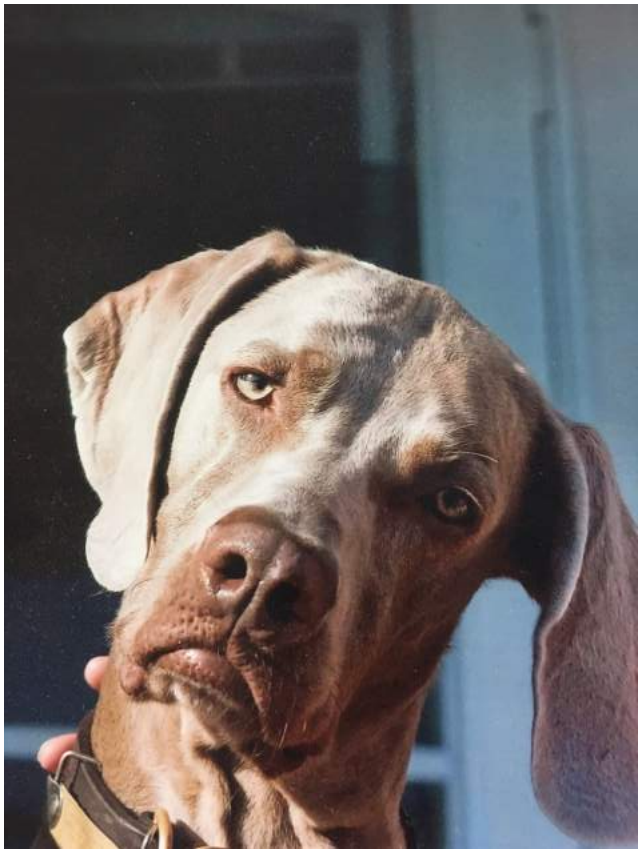
Peer Recovery Specialist

How to Pay for BH Link

- General Revenue—Start-up
- Medicaid bundled rate—triage center services
- SOR and BG funding for staff—enhanced staffing, hotlines, security, mobile outreach, transportation
  - Looking to find other ways to support these aspects of the program
    - Transportation contract with new non-emergency vendor
    - Improved rate for mobile assessment
    - Telemedicine to help with staffing and mobile

Thank you!

- Questions?
- For more information, contact Kristy Moles, Program Manager, Behavioral Health Link Triage Center
- kmoles@communitycareri.org
- 401-919-1491



Anchor ED: An Analysis Using Nearest Neighbor Matching

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Joshua Cambria, MPA Consulting Data Scientist

January 9, 2019

Data Sources

To robustly measure the impact of the Anchor ED program, the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH) opted to use the Medicaid subpopulation considering the availability of patient medical histories while eligible.

- Out of 732 unique persons, 430 had an exact match in the Medicaid Management Information System (MMIS).
- For those 430 individuals, the MMIS captured basic demographics and medical histories.

Methodology - Variables

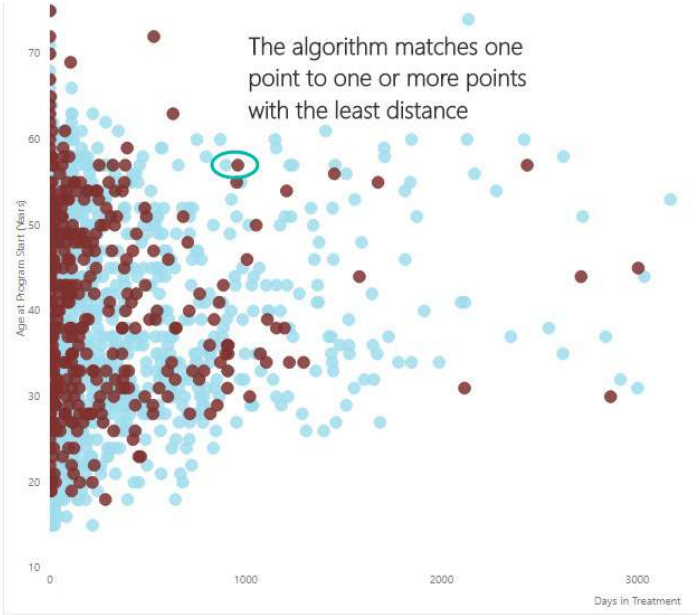
In order to adjust for bias and successfully compare two inherently different populations, Medicaid demographics, claims, and the Behavioral Health On-Line Database (BHOLD) treatment episodes accomplish the following:

- Match individuals with similar counts of episodes of care, primarily for an opioid use disorder (i.e., hospitalizations for overdose).
- Match individuals based on age, gender, and location (race data are weak in MMIS).
- Adjust for different lengths of enrolment in Medicaid.

DEPARTMENT OF BEHAVIORAL HEALTHCARE DEVELOPMENTAL DISABILITIES & HOSPITALS
BHDDH

Methodology – Nearest Neighbor Matching

K-Nearest Neighbor (kNN) is a method which measures the distance of a data point and other data points around it to determine which are closest. It then matches the data points of an individual in one population to the closest data points for individuals in a different one.



Why use kNN?

The benefits of kNN Matching are that we are able to match two individuals who are *virtually* the same so long as we are not missing key variables that would cause them to be statistically different.

This kind of analysis is useful when:

- The evaluated program does not have a designated control population.
- The program has a small sample size.

Results and Interpretation

Rhode Island BHDDH found that the first cohort of individuals seen by Anchor ED peers were roughly 42% less likely to suffer an overdose.

The treated population interacted less with Medicaid and claimed more hospital visits (both emergency and inpatient), but were 20% more likely to get connected to treatment with a BHDDH-licensed provider.

Results and Interpretation - Continued

Treatment Effects of Anchor Intervention in the Emergency Department	Coefficient	Standard Error
Overdose - Post	-0.4256***	(0.0355)
Opioid Overdose - Post	-0.0465***	(0.0140)
Opioid Fatality	-0.0116	(0.0072)
Cocaine or Hallucinogen Overdose - Post	-0.0093	(0.0068)
Other Overdose - Post	-0.4256***	(0.0355)
Alcohol Poisoning - Post	-0.0023	(0.0040)
Emergency Department Visits - Post	1.5616***	(0.3171)
Inpatient Hospitalizations - Post	2.1895***	(0.6190)
Days in Substance Abuse Treatment - Post	-13.0779	(22.2932)
Connected to Treatment - Post	0.2081***	(0.0306)

Observations: 5,449
P-Value: * p<0.1 ** p<0.05 *** p<0.01

PUBLIC COMMENT