Linkage to Care Surveillance Projects in Rhode Island

CSTE Linkage to Care Workgroup Call

April 18th, 2022

Ben Hallowell, PhD, MPH

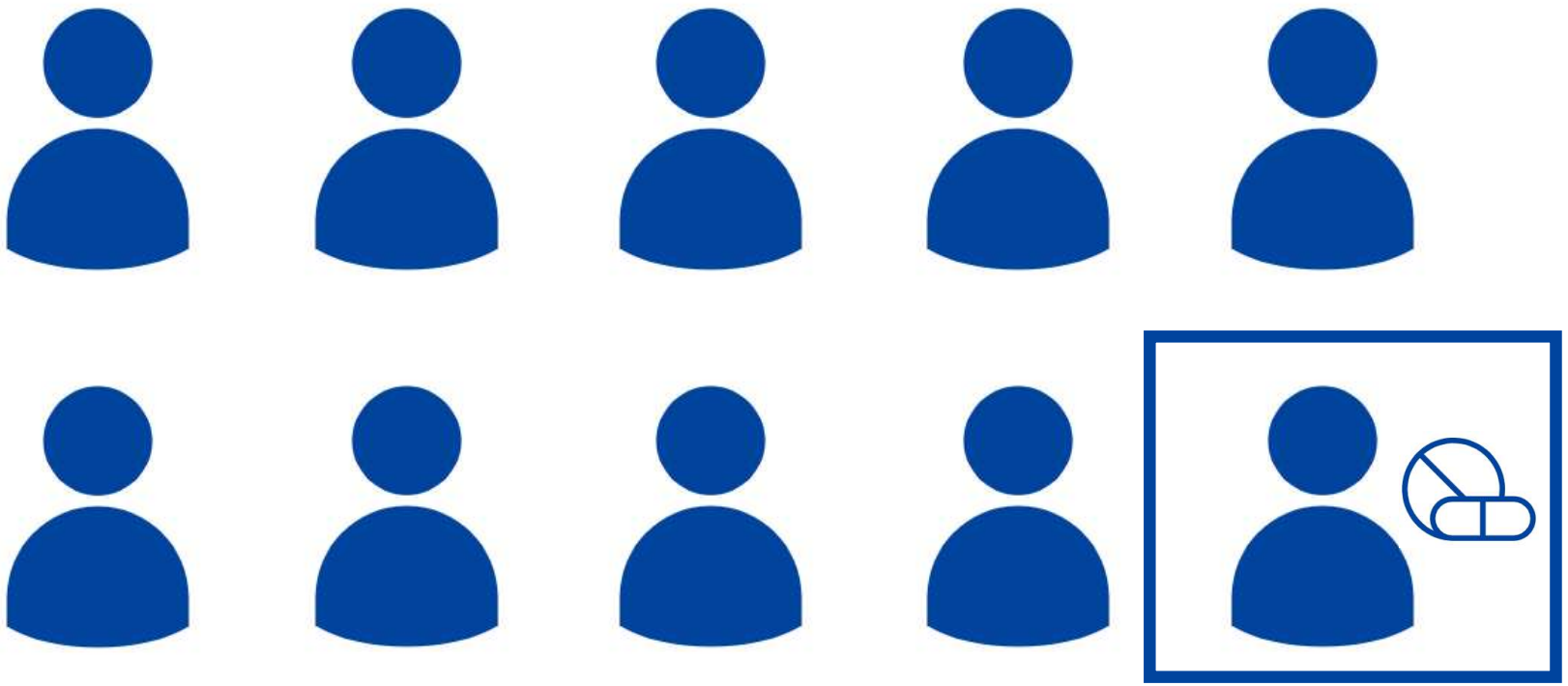
Linkage to Care Projects

- Factors associated with long-term buprenorphine treatment engagement
- Prior treatment among opioid overdose fatalities
- Post overdose linkage to care

Factors Associated with Long-Term Buprenorphine Treatment Engagement

Background

- In 2020, 2.7 million individuals in the United States met criteria for opioid use disorder
- However, only 278,000 had ever received medication for opioid use disorder in the prior 12 months

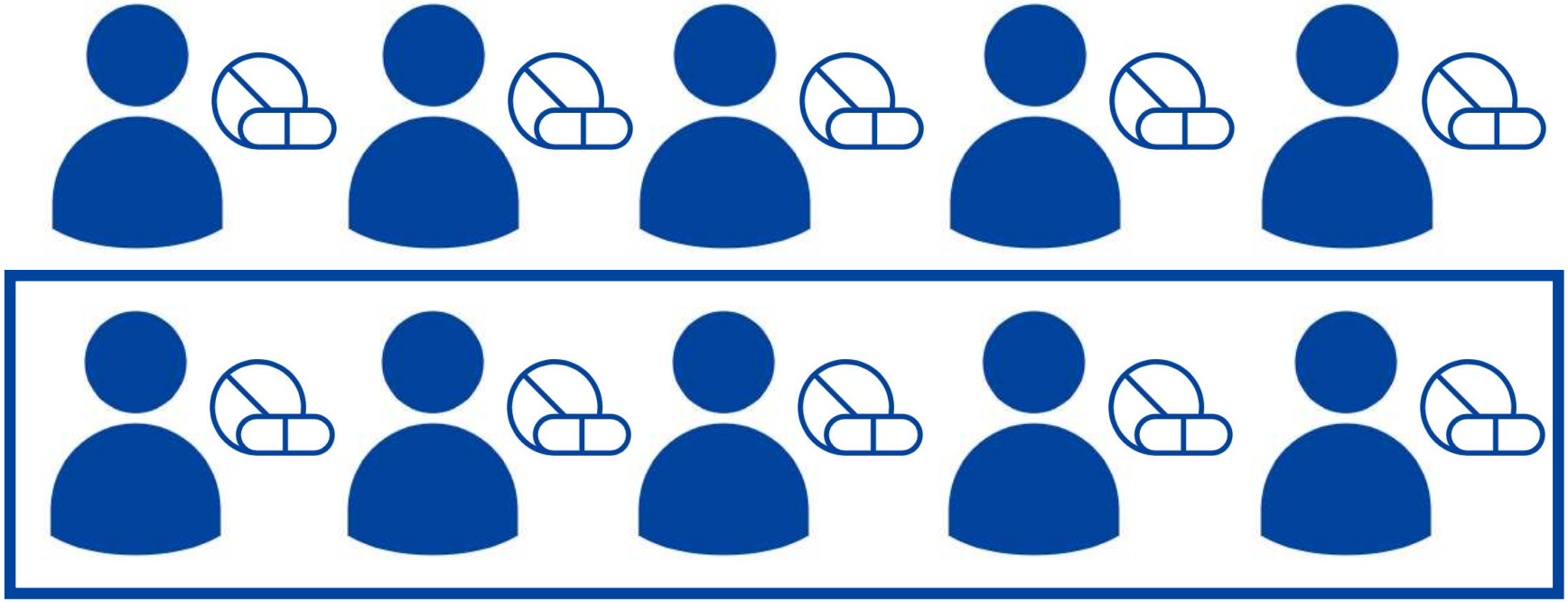


Treatment Impact

- Use of medications for opioid use disorder can help reduce:
  - the risk of fatal drug overdoses
  - the risk of non-fatal drug overdoses
  - can lower healthcare utilization and medical costs
  - help individuals discontinue substance use

- Impacts greatest when people can remain in long-term treatment

Treatment Retention



Project Objective

- To identify factors (non-modifiable and modifiable) associated with long-term buprenorphine retention at the population level

Methods

1. Identify individuals who are starting buprenorphine treatment
2. Determine if individuals were engaged in long-term buprenorphine treatment
3. Identify factors associated with long-term buprenorphine engagement

Methods

1. **Identify individuals who are starting buprenorphine treatment**
2. Determine if those individuals were engaged in long-term buprenorphine treatment
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Identifying Initiates

Buprenorphine prescriptions – RI PDMP

Initiated buprenorphine treatment between July 2017-June 2020

Methods

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2. **Determine if those individuals were engaged in long-term buprenorphine treatment**
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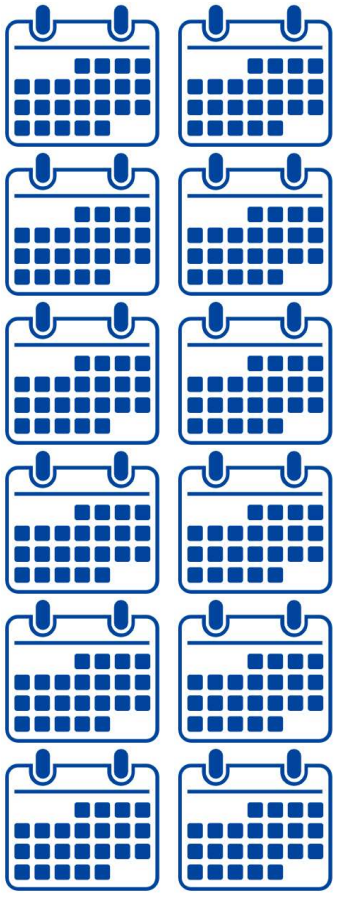
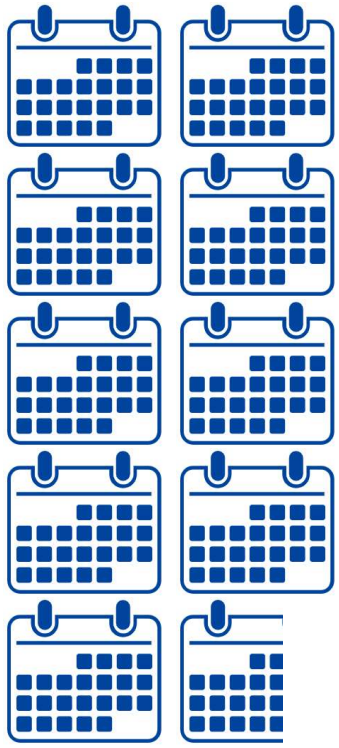
Long-Term Retention

12-month follow-up



All prescriptions filled

Days Supply



80% of days covered

9.6 months

293 days

Yes? Engaged in long-term buprenorphine treatment

Methods

1. Identify individuals who are starting buprenorphine treatment
2. Determine if those individuals were engaged in long-term buprenorphine treatment
3. **Identify factors associated with long-term buprenorphine engagement**

Independent variables

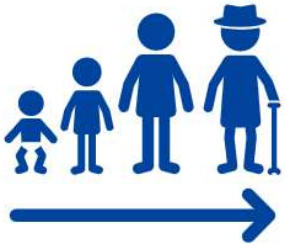
- Age
- Sex
- Insurance coverage
- Year of treatment initiation
- Distance from home to the pharmacy

- Buprenorphine formulation
- Daily Dose
- First stable daily dose
- Days' supply dispensed
- Receiving an overlapping benzodiazepine and buprenorphine
- Receiving an opioid during the follow-up treatment period

Results

- Between July 2017 - June 2020, 4,898 unique RI-residents initiated buprenorphine treatment
- However, only 37.8% had long-term buprenorphine treatment engagement during the 1-year follow-up period

Results



Older individuals had higher odds of having long term buprenorphine retention

Individuals who were on Medicaid insurance (compared to private) had higher odds of having long-term buprenorphine retention

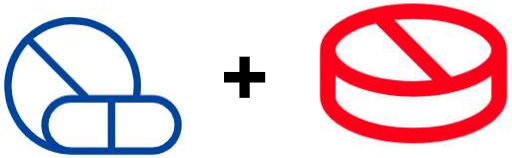
Results

Individuals who live further from the pharmacy were less likely to have long-term buprenorphine retention

Individuals who received the tab formulation (compared to film) had lower odds of having long-term buprenorphine retention

Results

Individuals dispensed an overlapping benzodiazepine were more likely to have long-term buprenorphine retention



Individuals dispensed an opioid during follow-up had lower odds of having long-term buprenorphine retention

Prior Treatment Among Opioid Overdose Fatalities

Motivation for the Analysis

June 2020

- Rapid increase in overdose deaths
- Are individuals in recovery disproportionally impacted by the covid-19 and opioid syndemic?

Objective: To identify if the proportion of individuals previously engaged in methadone and/or buprenorphine treatment has increased in 2020 relative to prior years.

Informing Practice

1. Providing additional support to individuals in long-term recovery who have discontinued treatment,
2. If we should target individuals currently engaged with treatment, or
3. Towards individuals never engaged in treatment and helping them get linked to care.

Analysis Approach

OSME

- Office of the State Medical Examiners
- All accidental opioid overdose deaths

VITAL

PDMP

RI-BHOLD

Analysis Approach

OSME

- Office of the State Medical Examiners
- All accidental opioid overdose deaths

VITAL

- Rhode Island Vital Records (all deaths in Rhode Island)
- Obtaining Social Security Number, confirming name and date of birth (DOB)

PDMP

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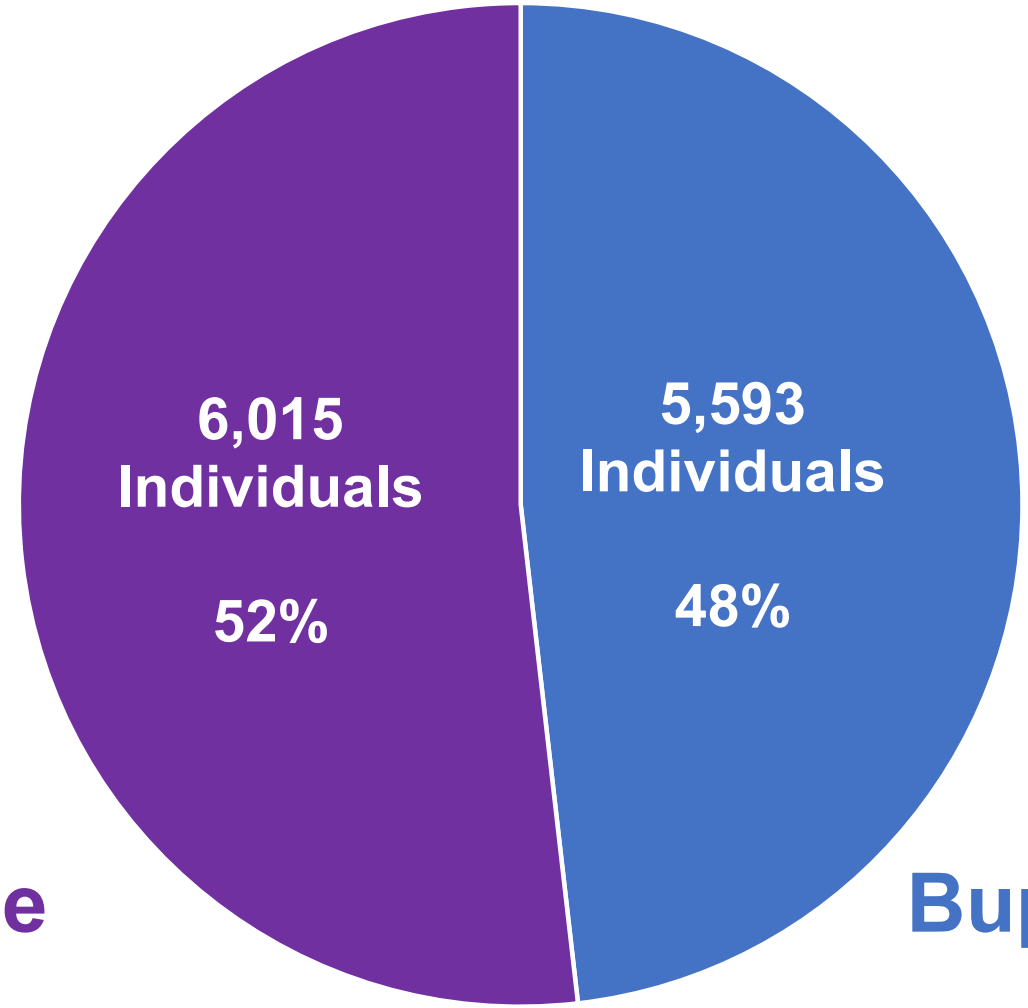
RI-BHOLD

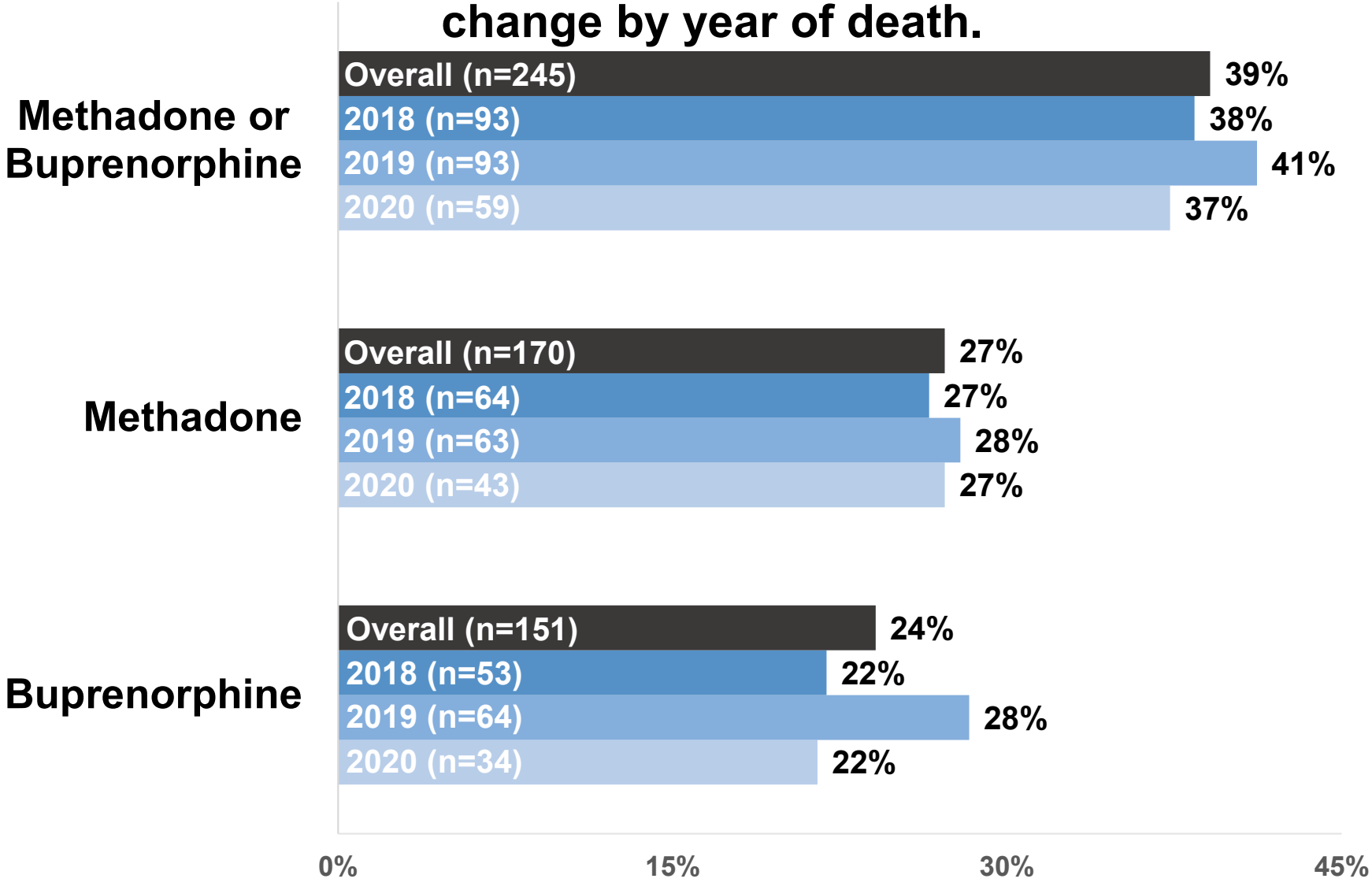
- Rhode Island Behavioral Health On-Line Database

Buprenorphine and Methadone Prescribing in Rhode Island, April-June 2020



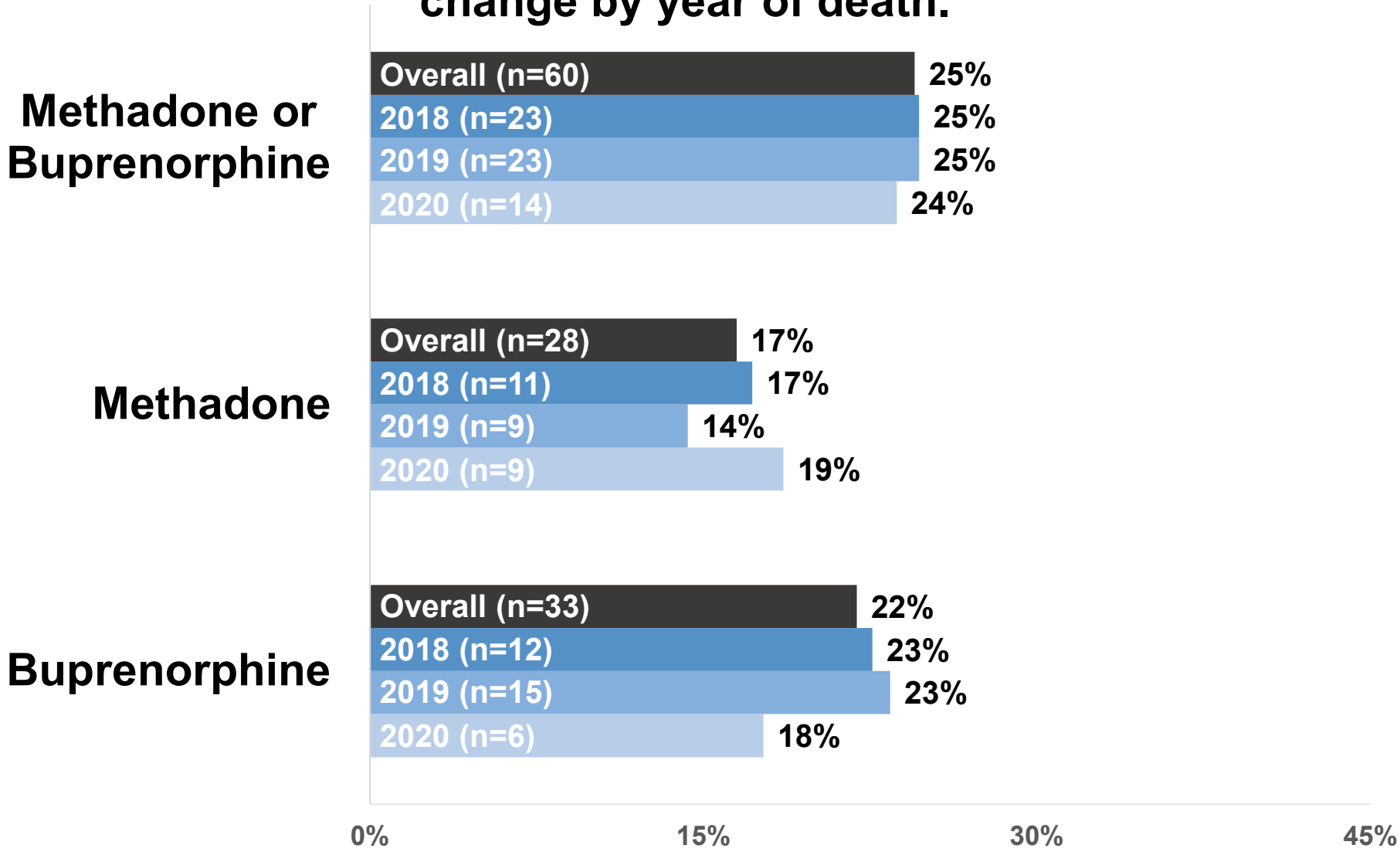
Percentage of People Previously Engaged in Treatment by Year of Death January 2018 - June 2020

Among individuals who died of an opioid-related overdose, 39% had ever received methadone or buprenorphine. This did not change by year of death.



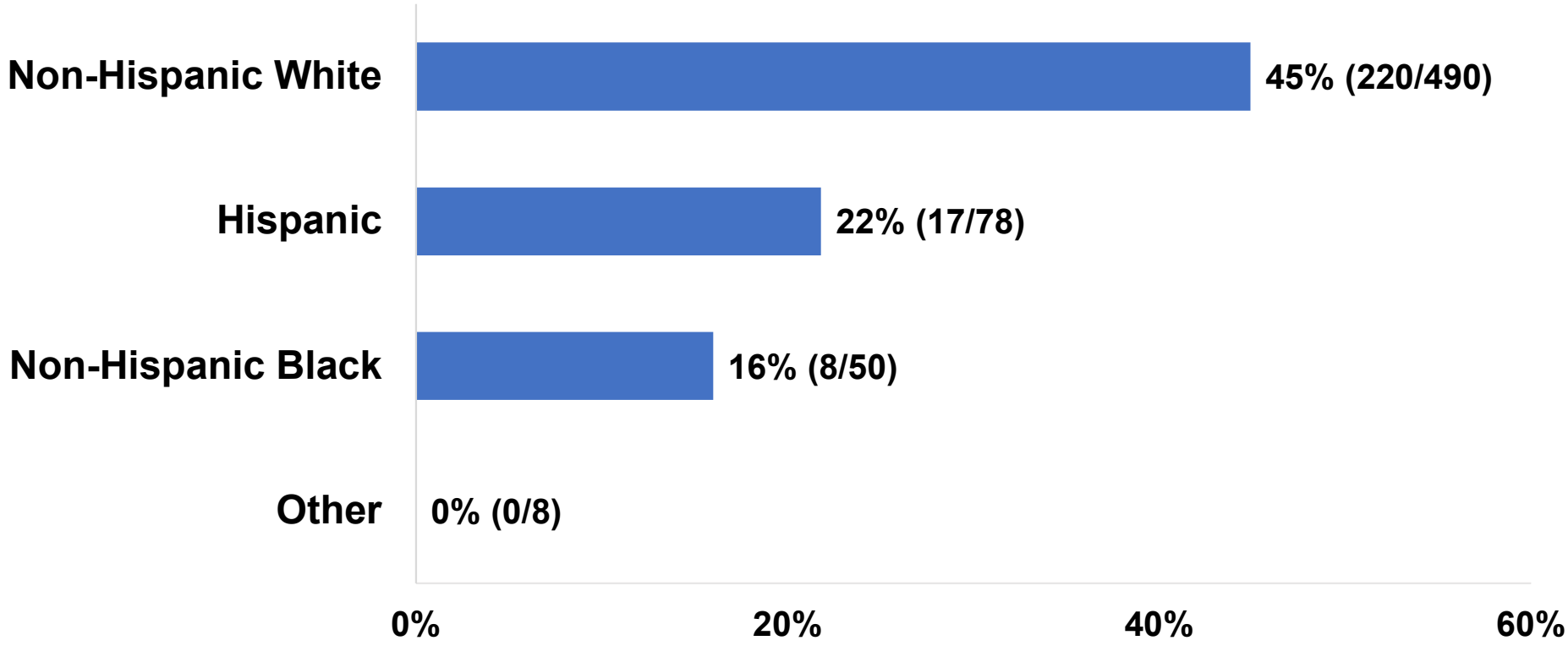
Percentage of People Engaged In Treatment at the Time of Death, by Year of Death January 2018-June 2020

Among individuals who ever received methadone or buprenorphine, 25% died while receiving treatment. This did not change by year of death.



Percentage of People Previously Engaged in OAT by Race/Ethnicity, January 2018-June 2020

While 39% of individuals were previously engaged in methadone and/or buprenorphine treatment overall, prior engagement varied dramatically when stratified by race and ethnicity.



Conclusions and Recommendations

- Most individuals, (60.9%) had not received any prior methadone or buprenorphine treatment for opioid use disorder prior to their death.

- Individuals dying from opioid overdoses in 2020 do not differ from prior years in terms of treatment characteristics.

Conclusions and Recommendations

- There was lower treatment utilization among individuals who were non-Hispanic black, Hispanic, and other minority racial and ethnic populations.

- Efforts to promote connection to treatment and remove barriers to care should continue to be prioritized.

AJPH OPINIONS, IDEAS, & PRACTICE

History of Methadone and Buprenorphine Opioid Agonist Therapy Among People Who Died of an Accidental Opioid-Involved Overdose: Rhode Island, January 1, 2018–June 30, 2020

Benjamin D. Hallowell, PhD, Heidi R. Weidele, MPH, Mackenzie Daly, MPA, Laura C. Chambers, PhD, MPH, Rachel P. Scagos, MPH, Lisa Gargano, PhD, MPH, and James McDonald, MD, MPH

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To guide intervention efforts, we identified the proportion of individuals previously engaged in opioid agonist therapy among people who died of an accidental opioid-involved overdose. Most individuals (60.9%) had never received any prior buprenorphine or methadone treatment. Individuals who died of an overdose in 2020 had a similar demographic profile and treatment history compared with prior years. To prevent additional accidental opioid-involved overdose deaths, efforts should be directed toward linking individuals to care. (*Am J Public Health*. 2021;111(9):1600–1603. https://doi.org/10.2105/AJPH.2021.306395)

Post Overdose Linkage to Care

Motivation for the Analysis

March 2017: Rhode Island implemented statewide treatment standards for post-overdose care in emergency departments

Project Objectives

ED Visit

1) Provision of behavioral counseling
2) Provision of buprenorphine
3) Provision of take-home naloxone kit
4) Provision of a referral to opioid use disorder treatment

After Visit

5) any opioid use disorder treatment within (a) 30 days or (b) 180 days of the ED visit, among patients not engaged in opioid use disorder treatment at the time of the ED visit

Analysis Approach

ED data

- Largest health system in RI (3 hospitals)
- Receives ~50% of the state's non-fatal opioid overdoses
- Identified opioid overdoses + post overdose care

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PDMP

- Rhode Island Prescription Drug Monitoring Program
- Obtained buprenorphine prescriptions

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- Identified overdose overdoses + post overdose care

PDMP

- Rhode Island Prescription Drug Monitoring Program
- Obtained buprenorphine prescriptions

RI-BHOLD

- Rhode Island Behavioral Health On-Line Database
- Obtain methadone, detoxification, intensive outpatient, outpatient, and residential treatment

Results

- Overall, 2,134 Rhode Island residents attended 2,981 ED visits for an opioid overdose (956 pre, 1,935 post).
  - **Sex:** 70% male
  - **Age:** 58% between ages 25-44 years
  - **Race/Ethnicity:** 74% non-Hispanic White

Primary Outcomes

Services Provided in the ED	Pre	Post
Provided Behavioral Counseling	45%	48%
Buprenorphine provided at discharge**	**0%**	**3%**
Naloxone provided at discharge**	**41%**	**58%**
Referral to treatment post overdose**	**0%**	**34%**

Post Overdose Linkage to Care[1]	Pre	Post
Newly initiated OUD treatment		
0-30 days	15%	18%
30-180 days	20%	21%
0-180 days	35%	39%

[1]Limited to individuals not in opioid use disorder treatment at the time of OD

Conclusions

- Statewide treatment standards may improve provision of key post-overdose services within EDs, including referral to treatment, provision of naloxone, initiation of medications for opioid use disorder.

- Additional strategies are needed to improve engagement in treatment for opioid use disorder following opioid overdose.

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