



Governor Dan McKee's Overdose Task Force

September 13, 2023

Louis Cerbo, EdD; Acting Director, Rhode Island Department of Behavioral Healthcare, Developmental Disabilities & Hospitals

Philip Chan, MD, MPH; Consultant Medical Director, Rhode Island Department of Health

Ana Novais, MA; Assistant Secretary, Rhode Island Executive Office of Health and Human Services

Richard Charest, MBA; Secretary, Rhode Island Executive Office of Health and Human Services

Thomas Joyce, LCDP, CPRS; Task Force Community Co-Chair

Cathy Schultz, MPH; Task Force Director, Rhode Island Executive Office of Health and Human Services

**RHODE
ISLAND**



Welcome and Announcements

**RHODE
ISLAND**



PROFOUND

a Naloxone and Resource
Allocation Tool

The PROFOUND Project: A state, academic, and community partnership to maximize the positive impact of naloxone access in Rhode Island

Brandon DL Marshall, PhD

Professor, Department Epidemiology
Director, People, Place & Health Collective
Brown University School of Public Health

09/13/2023

Project funded by:



National Institute
on Drug Abuse

Who are we?



Bruce Schackman, PhD

Brandon DL Marshall, PhD

**Alexander Walley, MD,
MSc**

**Alexandra Kingsepp,
MPH**

Czarina Behrends, PhD, MPH

Maxwell Krieger, BS

**Benjamin Linas, MD,
MPH**

Andrew Trinidad, MPH

Sean Murphy, PhD

**Shayla Nolen, PhD
Candidate**

Jake Morgan, PhD

Ali Jalali, PhD

Sam Bessey, MS

Avik Chatterjee, MD

Thanh Lu, PhD

Jesse Yedinak, MPA

**Christina Freibott, PhD
Candidate**

Philip Jeng, MS

Cristina Chin, LMSW, MPH



Jennifer Koziol, MPH

Benjamin Hallowell, PhD



Xiao Zang, PhD

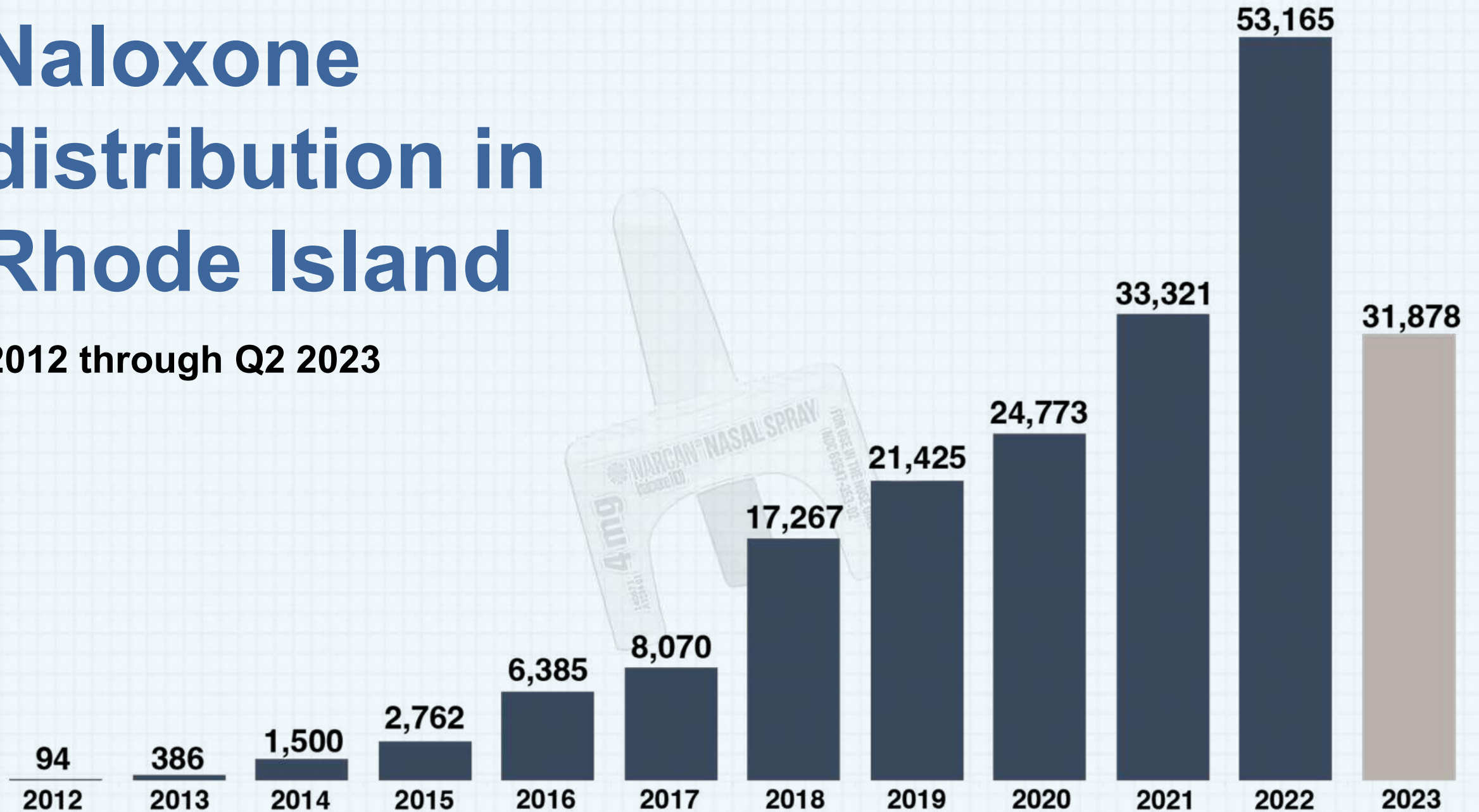
Zongbo Li, MPH



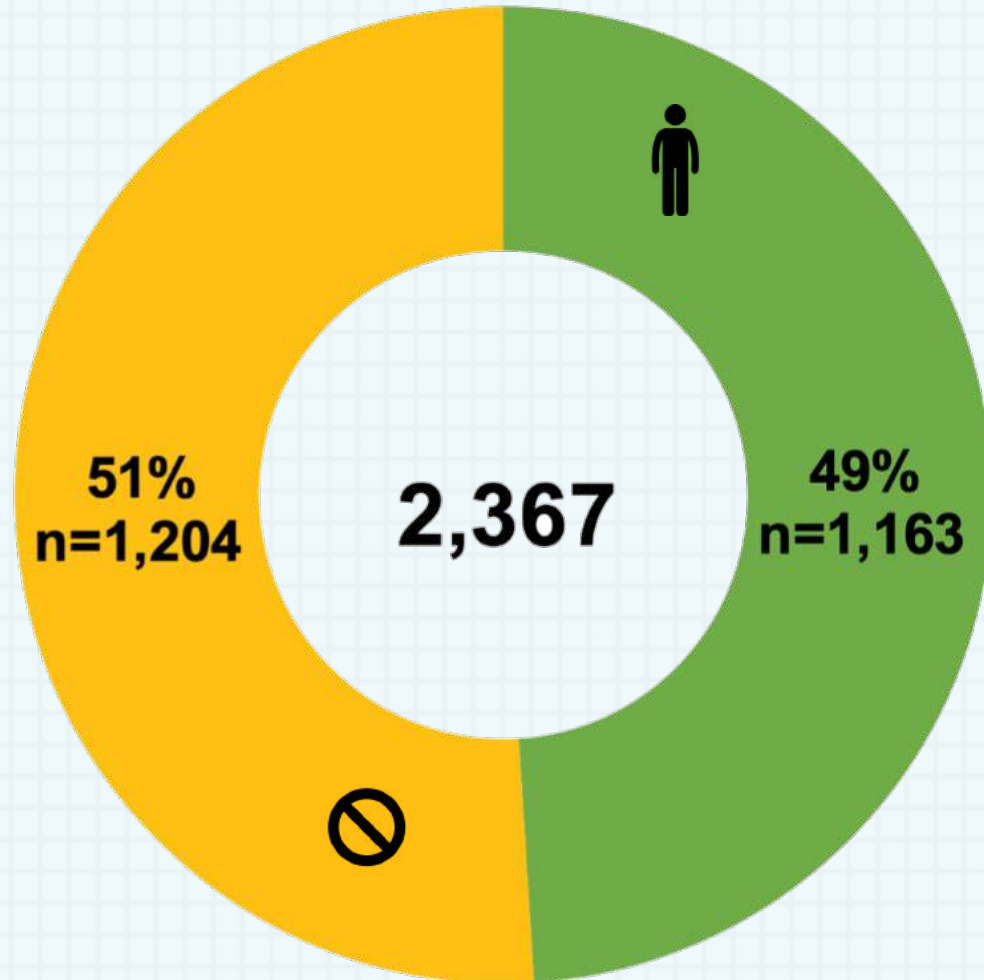
Traci Green, PhD, MSc

Naloxone distribution in Rhode Island

2012 through Q2 2023



Bystanders are present in only ~50% of overdose deaths



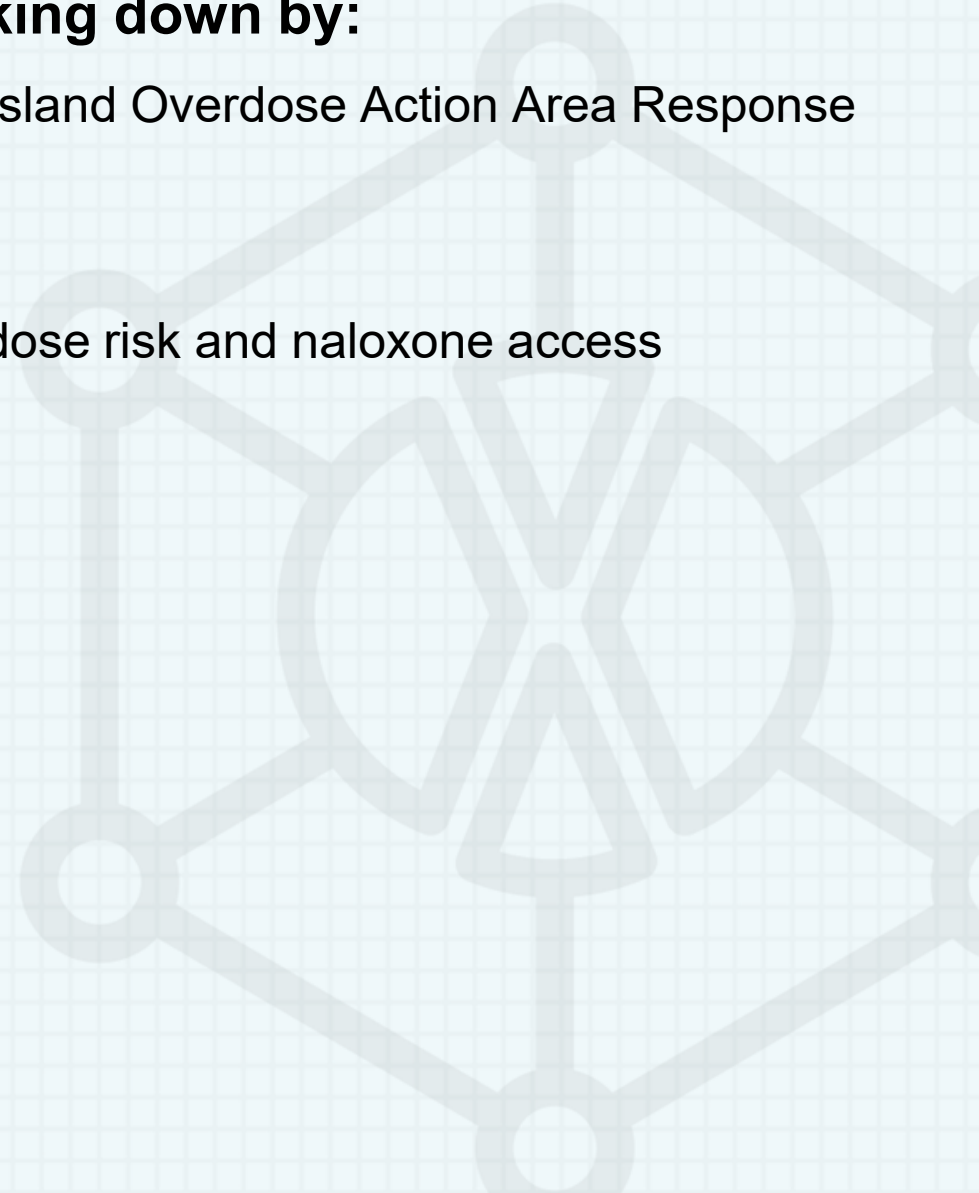
Our research questions

1. How might we distribute naloxone to communities in ways that lower opioid overdose deaths and makes the best use of our resources?
2. Could interventions to reduce solitary drug use further increase the positive impact of naloxone in Rhode Island communities?

PROFOUND is a microsimulation that models...

1. Rhode Islanders at risk for opioid overdose, breaking down by:

- Size of at-risk population in each city/town and Rhode Island Overdose Action Area Response (ROARR) region
- Drug use patterns/health states
- Other characteristics that may be associated with overdose risk and naloxone access (e.g., age, sex)



PROFOUND is a microsimulation that models...

1. Rhode Islanders at risk for opioid overdose, breaking down by:
 - Size of at-risk population in each city/town and ROARR region
 - Drug use patterns/health states
 - Other characteristics that may affect overdose risk and naloxone access (e.g., age, sex)
2. **In each 'month', a simulated person can experience an overdose**



PROFOUND is a microsimulation that models...

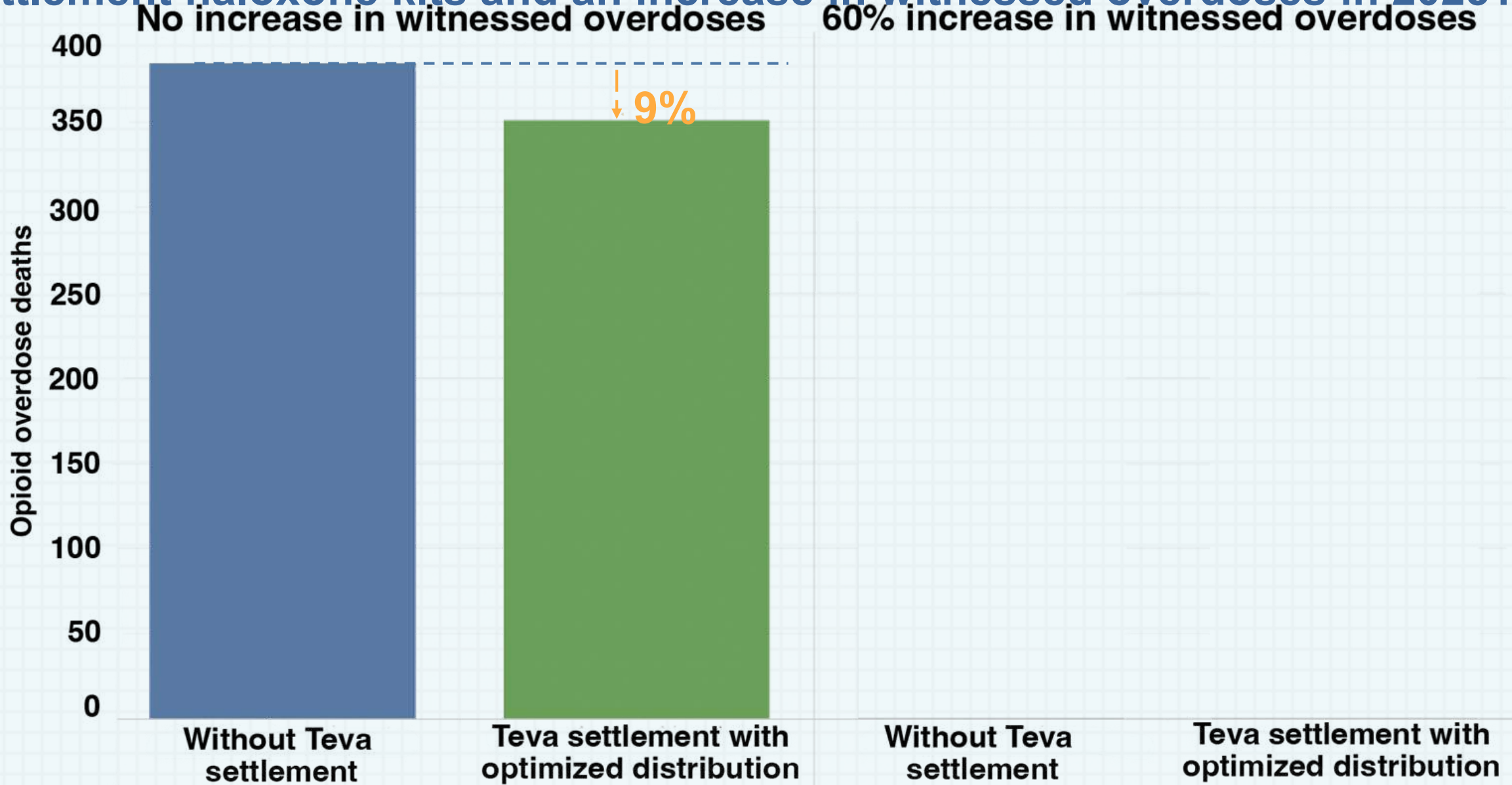
1. Rhode Islanders at risk for opioid overdose, breaking down by:
 - Size of at-risk population in each city/town and ROARR region
 - Drug use patterns/health states
 - Other characteristics that may affect overdose risk and naloxone access (e.g., age, sex)
2. In each 'month', a simulated person can experience an overdose
3. **What may happen during and after the overdose is determined by:**
 - Was the overdose in **public**?
 - Was the overdose **witnessed**?
 - Was **naloxone** administered?
 - Was **EMS** called?
 - Did the simulated person go to the **ED**?
 - Did the simulated person **survive**?



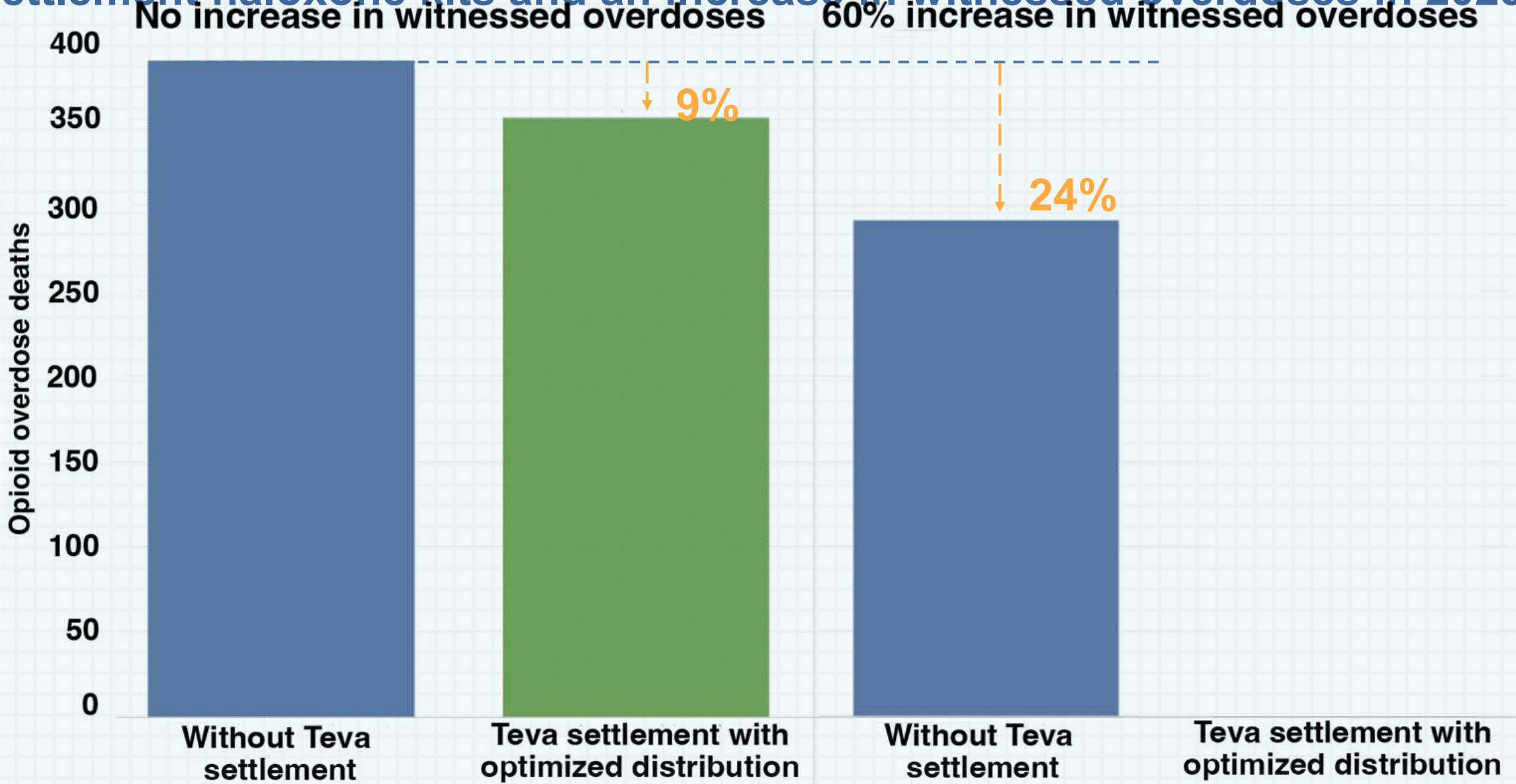
Next, we ask 'what if' questions and run the model

1. **What is the potential impact of the Teva settlement (50,000 kits per year for 10 years) on the overdose crisis in Rhode Island?**
2. **What if we could increase the percentage of overdoses that are witnessed by 60%?**

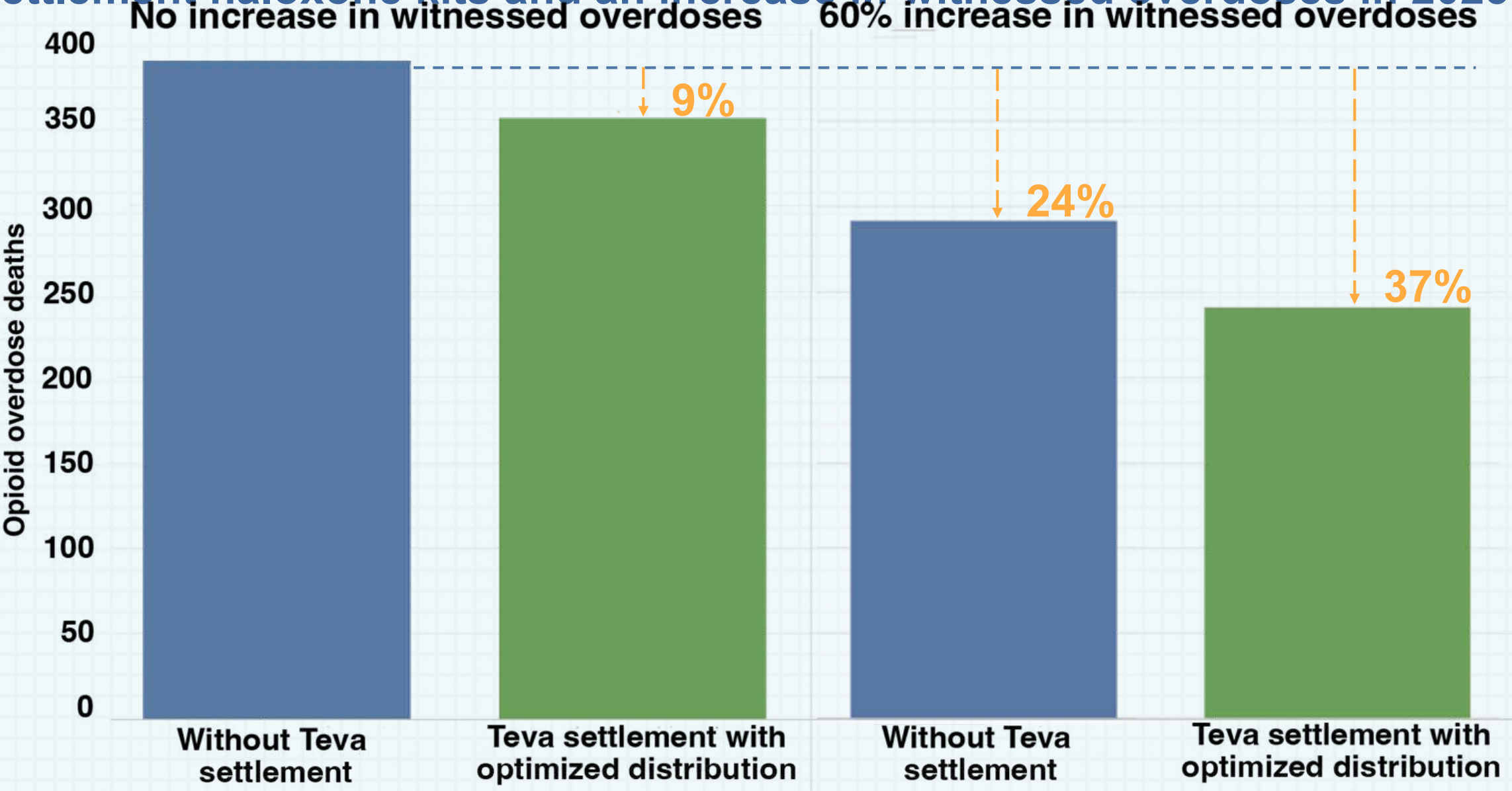
How would opioid overdose deaths be impacted by an additional opioid settlement naloxone kits and an increase in witnessed overdoses in 2025?



How would opioid overdose deaths be impacted by an additional opioid settlement naloxone kits and an increase in witnessed overdoses in 2025?



How would opioid overdose deaths be impacted by an additional opioid settlement naloxone kits and an increase in witnessed overdoses in 2025?



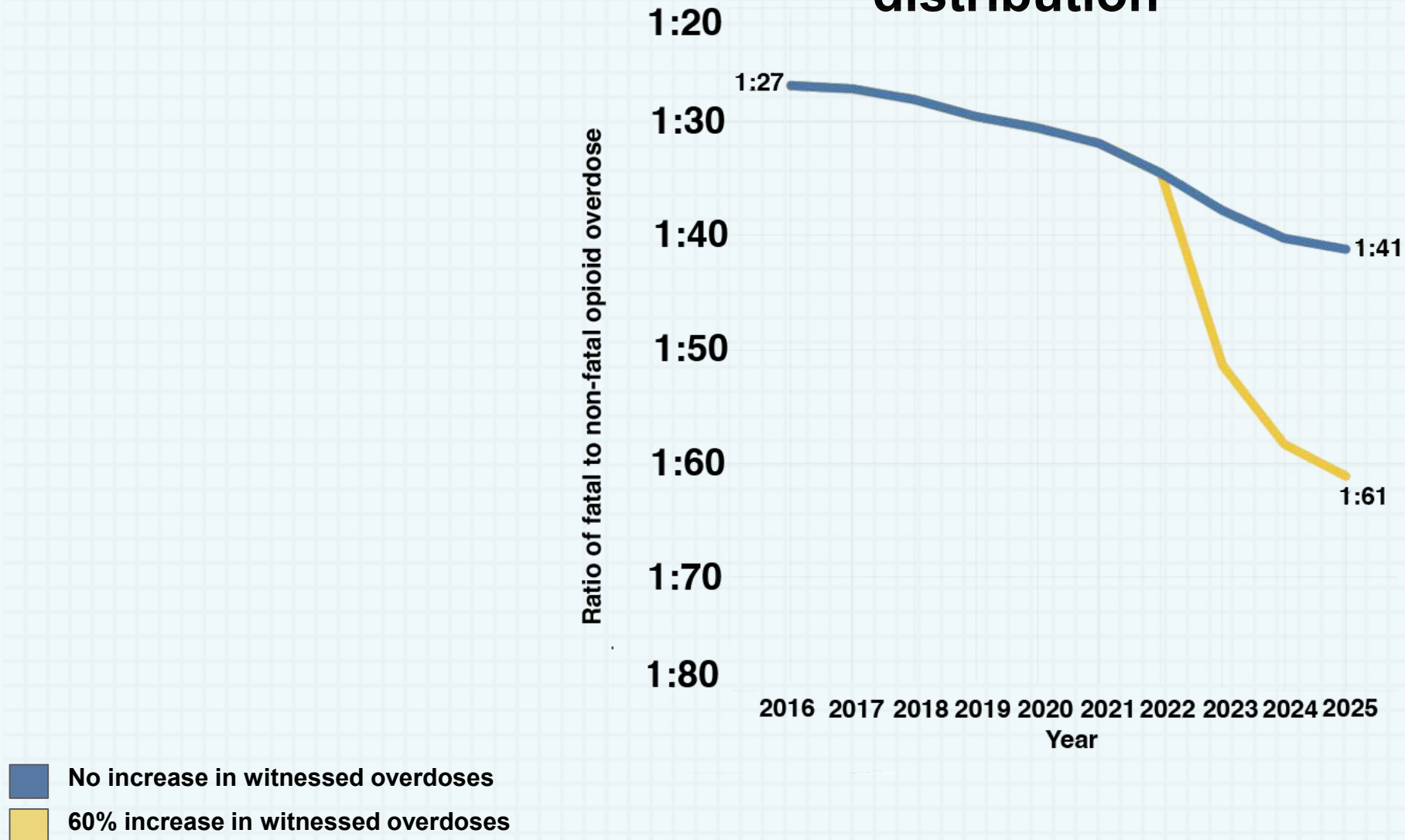
Optimized naloxone distribution strategy by ROAAR region

Figure: Number of recommended naloxone kits distributed to each ROAAR and the number of potential averted deaths.

ROAAR Region	Recommended number of kits	Opioid overdose deaths averted
Region 1: Burrilville, Foster, Glocester, Scituate	1,000	2
Region 2: Woonsocket	3,500	1
Region 3: Cumberland, Lincoln, North Smithfield, Smithfield	2,500	4
Region 4: Johnston, North Providence	2,400	2
Region 5: Central Falls, East Providence, Pawtucket	7,300	3
Region 6: Providence	16,200	3
Region 7: Coventry, Cranston, Warwick, West Warwick	9,300	8
Region 8: Barrington, Bristol, Little Compton, Middletown, Newport, Portsmouth, Tiverton, Warren	4,800	6
Region 9: East Greenwich, Exeter, Hopkinton, Richmond, West Greenwich	1,400	2
Region 10: Charlestown, Jamestown, Narragansett, New Shoreham, North Kingstown, South Kingstown	4,600	4
Grand Total	53,000	35

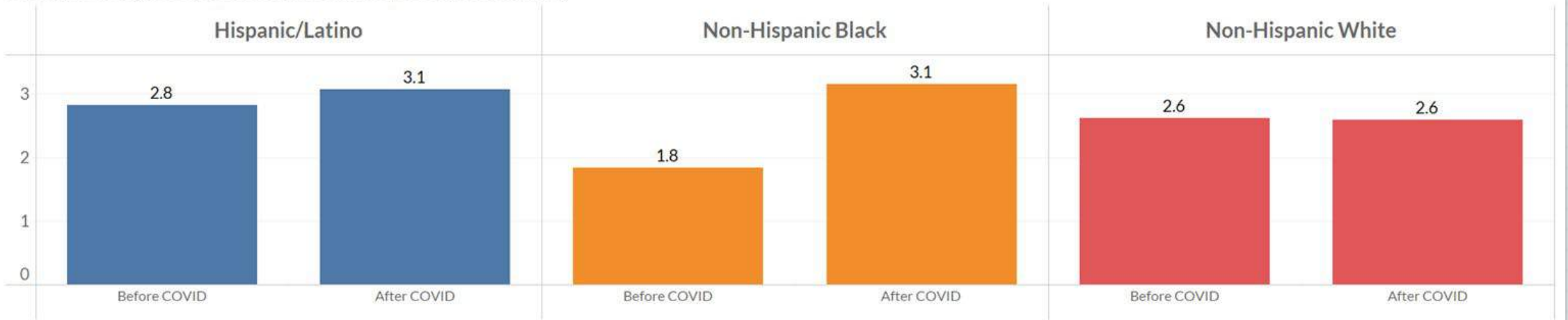
Increased naloxone distribution and addressing solitary drug use reduces the proportion of overdose deaths that are fatal from about 1 in 37 to about 1 in 61

Teva settlement with optimized distribution

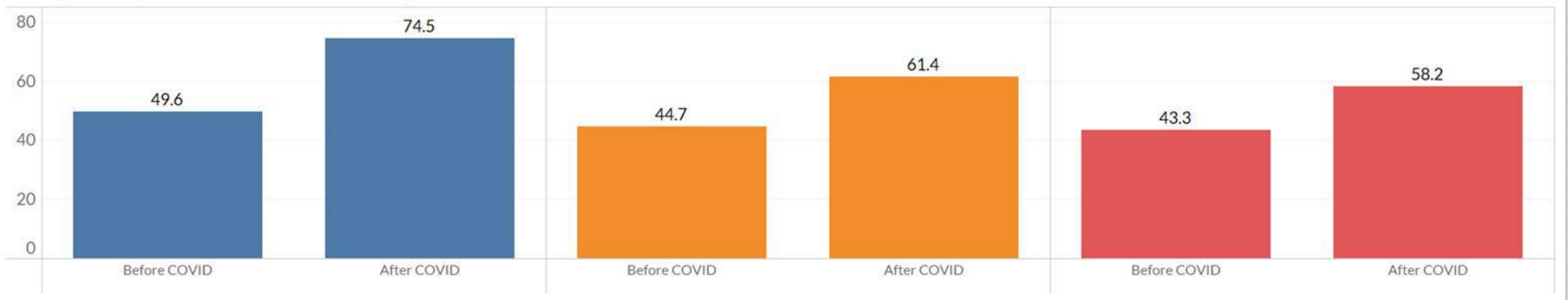


Growing racial/ethnic inequities in naloxone access during the COVID-19 pandemic in Massachusetts

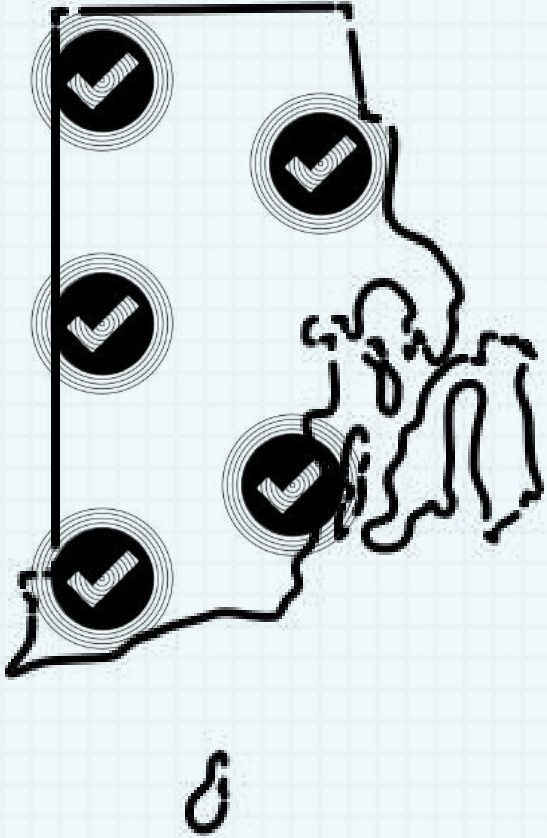
Average monthly rate of opioid overdose deaths (per 100,000 residents)



Average monthly rate of naloxone kits distributed (per 100,000 residents)



Conclusions



- 1. Rhode Island is a national leader in naloxone distribution**
- 2. Community-based efforts are making an enormous impact on the overdose crisis in our state**
- 3. Ongoing efforts to increase naloxone distribution will have greater effect if interventions are undertaken to address solitary drug use**

- **Co-Principal investigator Bruce Schackman and other members of the PROFOUND team**
- **Members of the Rhode Island naloxone workgroup for their insights, contributions, and partnership**
- **Staff and partners at the Rhode Island Department of Health**
- **Partners, staff, and advocates at our local harm reduction & recovery organizations**
- **The wonderful staff, faculty, and students at the People, Place & Health Collective (PPHC), particularly Jackie Goldman, Alex Collins, Jesse Yedinak, and Alex Macmadu**
- **Particular thanks to Max Krieger, Abdullah Shhipar, and Xiao Zang for their assistance with this presentation**
- **Our students at Brown School of Public Health**



appreciations & gratitude

- **This project is supported by the National Institute on Drug Abuse (U01-DA047408)**
- **We are grateful for additional funding and support from the COBRE on Opioids & Overdose (P20-GM125507)**

Contact us!

66 Pavillion Ave
Providence, RI
02905



@pph_collective



@pph_collective

brandon_marshall@brown.edu

www.pphcollective.org

Illustrations by Esther Moon



2023 International Overdose Awareness Day

A TIME TO REMEMBER - A TIME TO ACT

We See You Award Recipients





#DECLARANDOOSFATOS



#DECLARANDOLOSHECHOS

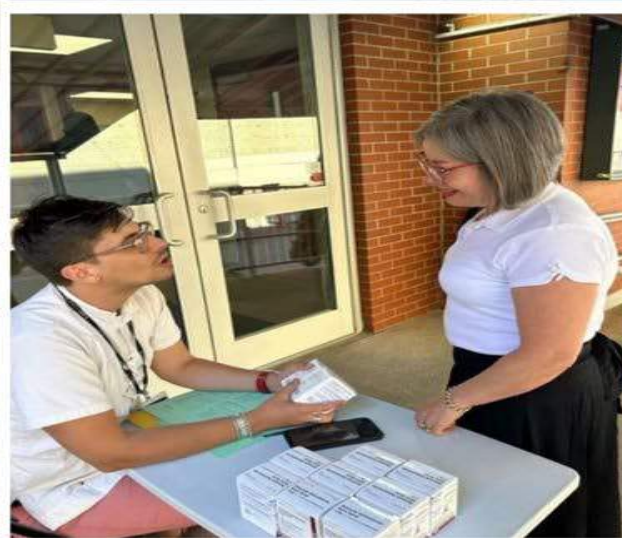


#DECLARANDOLOSHECHOS



#STATINGTHEFACTS







**WE HANDED OUT 5,438
BOXES OF NARCAN ACROSS
RI ON INTL. OVERDOSE
AWARENESS DAY!**

NO STIGMA
Ψ* Ψ* Ψ* Ψ* Ψ*
* Ψ* Ψ* Ψ* Ψ*

2,980

**Providence, Pawtucket,
& Central Falls**

1,012

**Warwick, West Warwick,
& Coventry**

576

**East Providence,
Burrillville, & Tiverton**

502

**Woonsocket, Smithfield,
& Lincoln**



**Happy Recovery
Month!**

Public Comment

RHODE
ISLAND