

# LIFECYCLE OF PRESCRIBED OPIOIDS

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# Disclosures

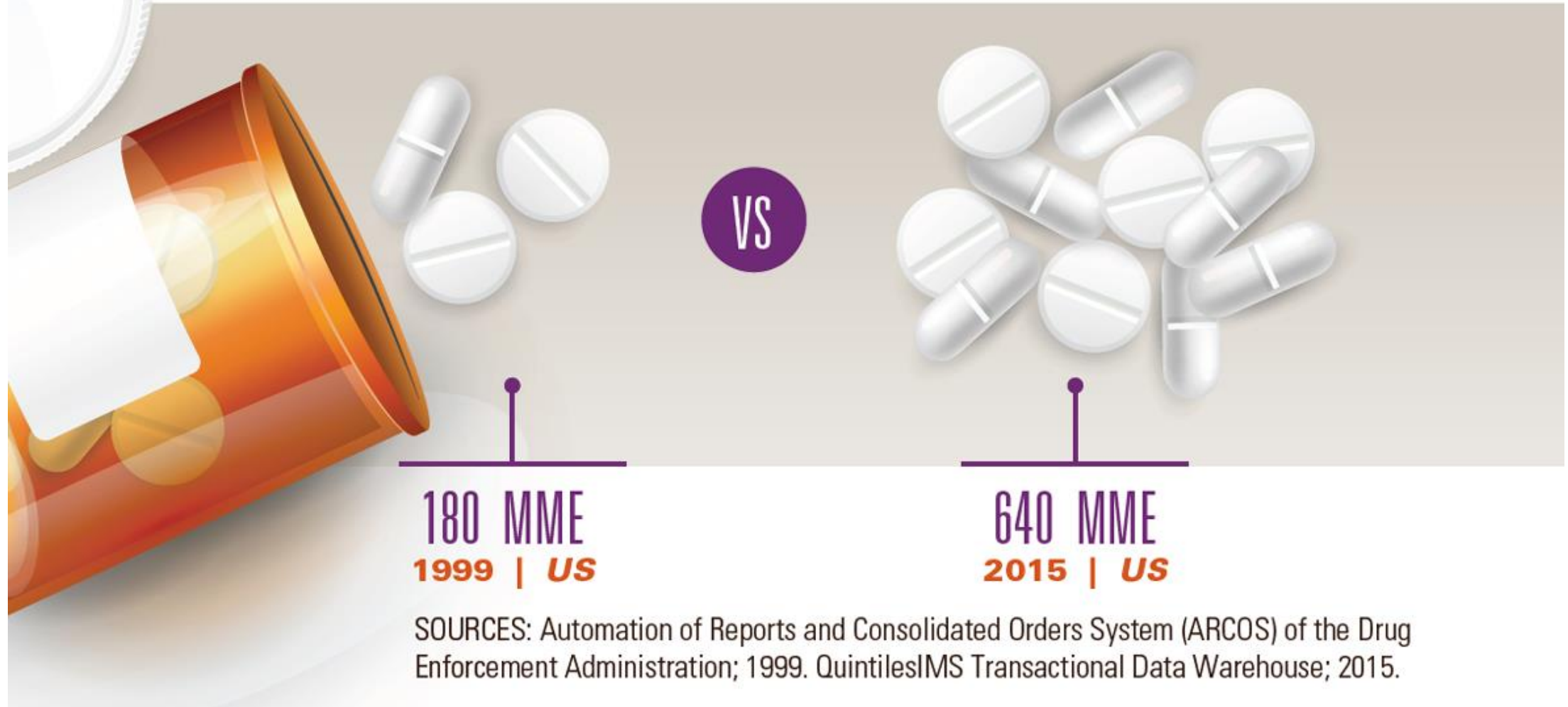
- No conflicts of interest

# True Story

- My daughter had 2 wisdom teeth removed
- Her oral surgeon prescribed 16 tablets of oxycodone with acetaminophen
- She took 2 and didn't need any more



**The amount of opioids prescribed per person was three times higher in 2015 than in 1999.**



# Prescription Opioid Life Cycle – perfect world



# Life is Not So Perfect

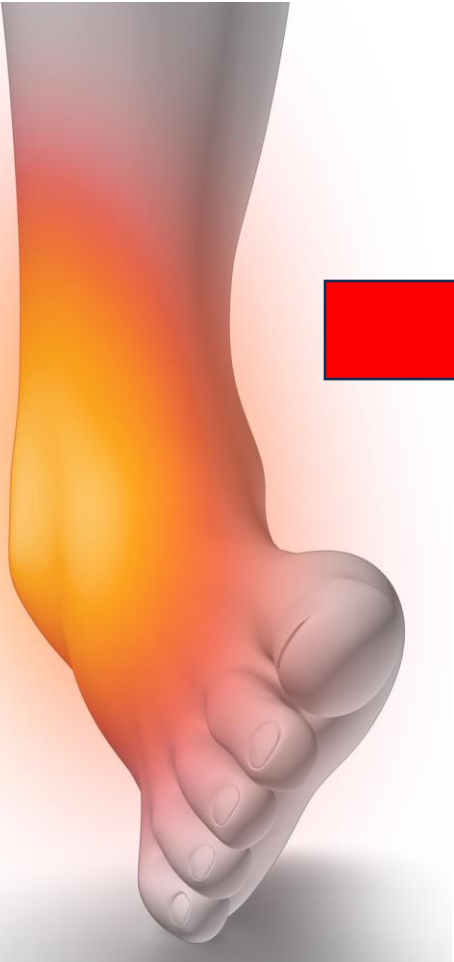




# Harm reduction



# Nonmedical Use

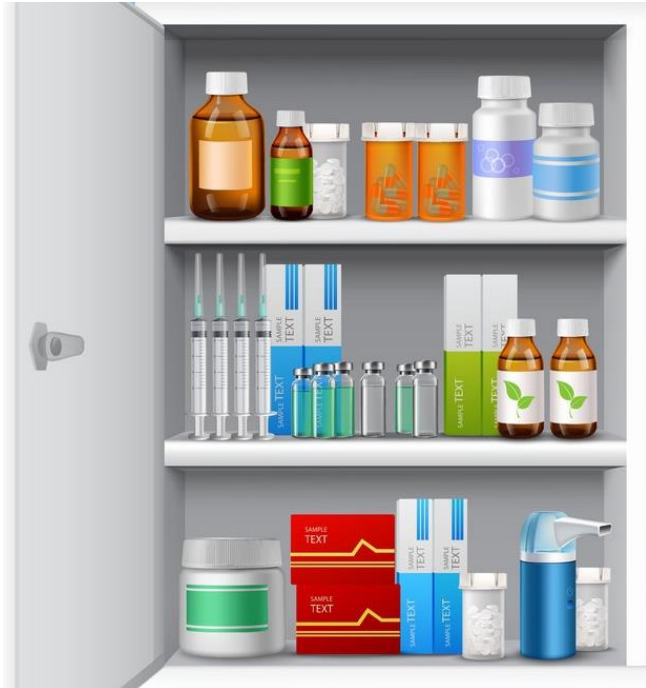




# Nonmedical Use

- Nonmedical use is the use of prescription drugs, whether obtained by prescription or otherwise:
  - Other than in the manner, for the reasons, or time period prescribed or by a person for whom the drug was not prescribed

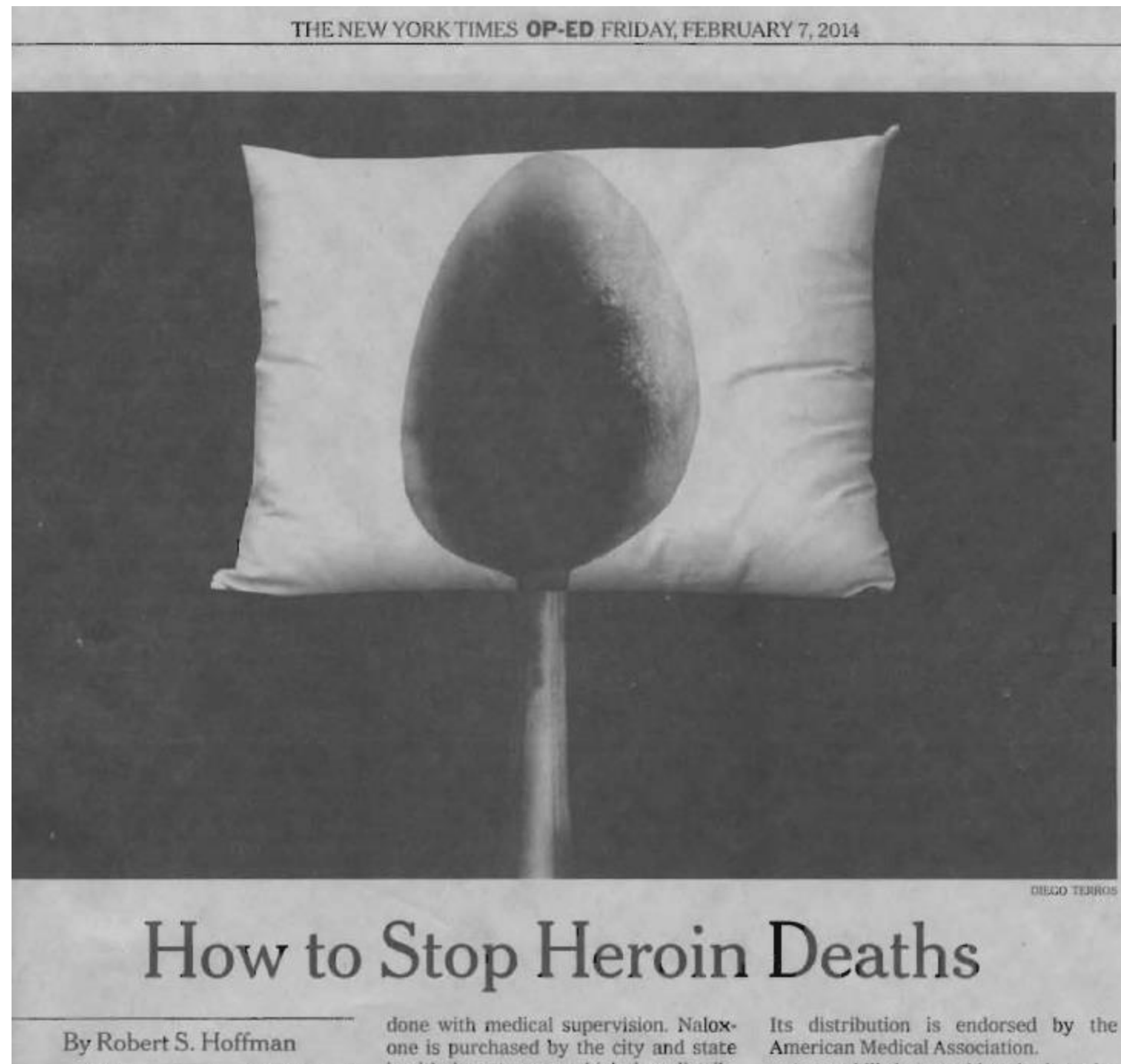
# Disaster



# Harm reduction



# Harm Reduction





# Diversion

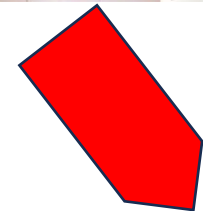




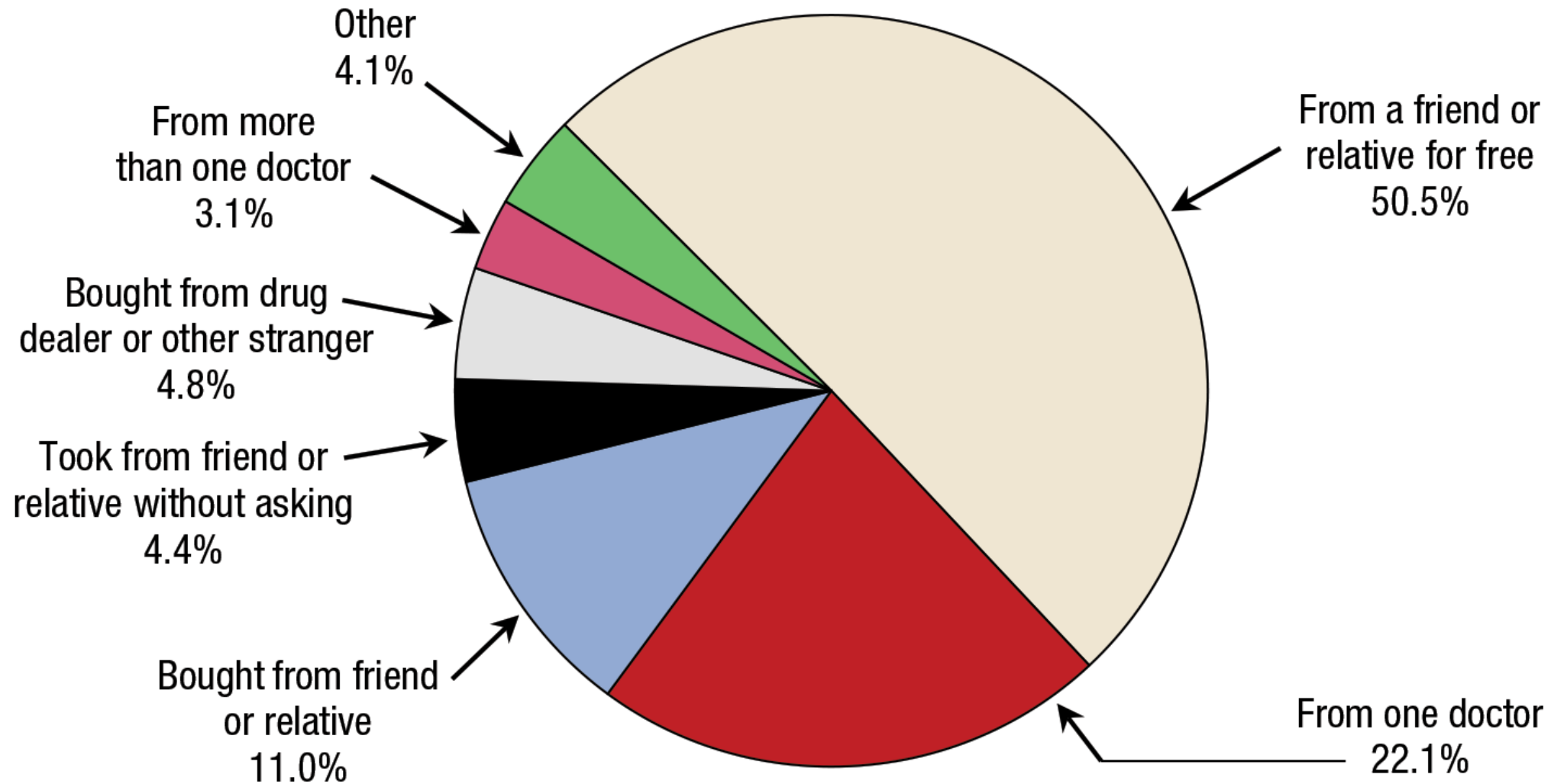
# Harm reduction



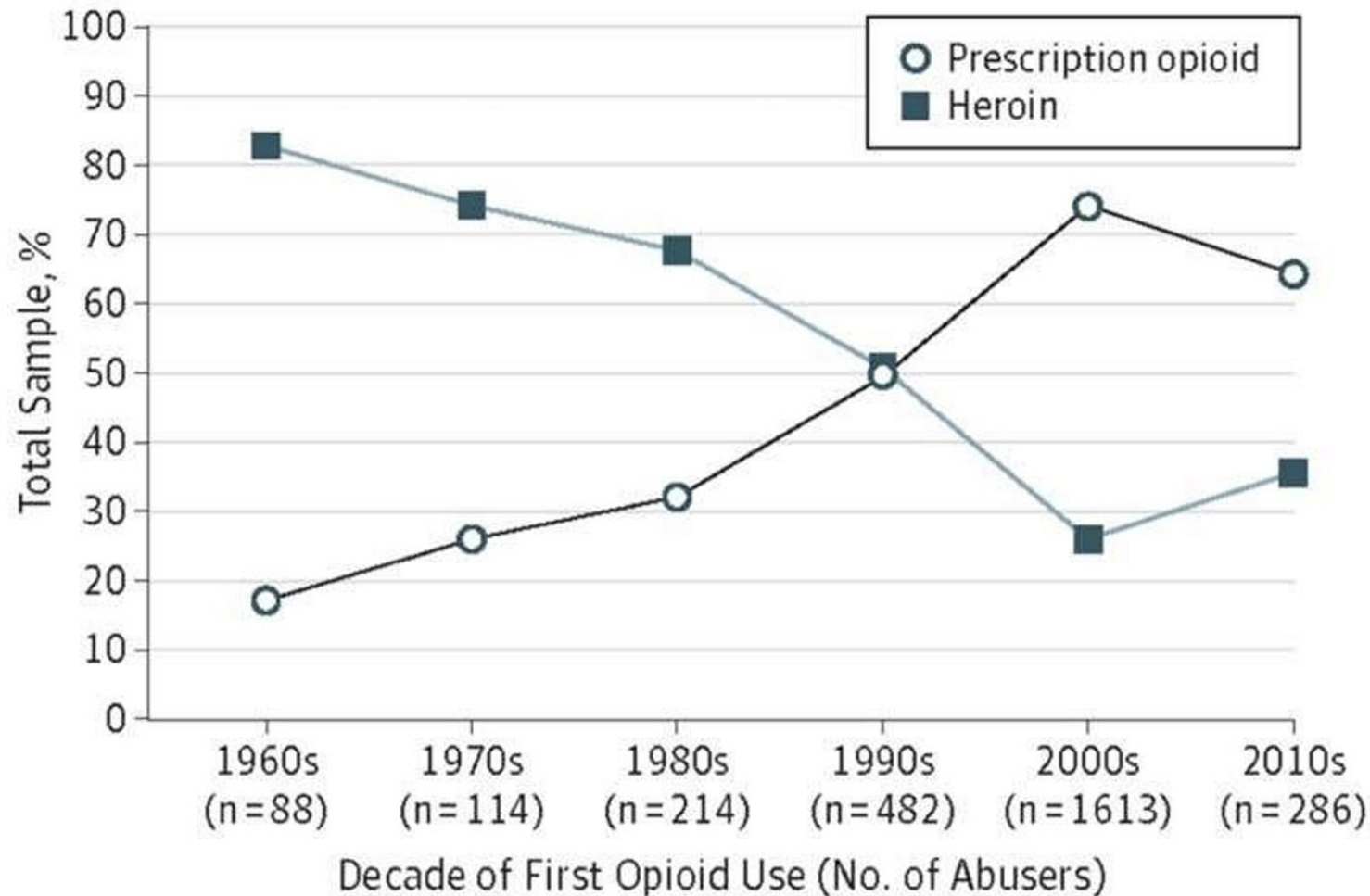
# Misuse



# How People Obtain the Prescription Pain Relievers They Misuse - SAMHSA



# What did people with OUD use first



Cicero TJ, et al. The JAMA Psychiatry. 2014;71:821-826.



# THE OPIOID EPIDEMIC BY THE NUMBERS



**70,630**

people died from drug overdose in 2019<sup>2</sup>



**10.1 million**

people misused prescription opioids in the past year<sup>1</sup>



**1.6 million**

people had an opioid use disorder in the past year<sup>1</sup>



**2 million**

people used methamphetamine in the past year<sup>1</sup>



**745,000**

people used heroin in the past year<sup>1</sup>



**50,000**

people used heroin for the first time<sup>1</sup>



**1.6 million**

people misused prescription pain relievers for the first time<sup>1</sup>



**14,480**

deaths attributed to overdosing on heroin (in 12-month period ending June 2020)<sup>3</sup>



**48,006**

deaths attributed to overdosing on synthetic opioids other than methadone (in 12-month period ending June 2020)<sup>3</sup>

## SOURCES

1. 2019 National Survey on Drug Use and Health, 2020.
2. NCHS Data Brief No. 394, December 2020.
3. NCHS, National Vital Statistics System. Provisional drug overdose death counts.





# Unintentional Injury Deaths in Children and Youth, 2010-2019

Injuries are a leading cause of death for children and teens in the U.S. The types of injury vary by age.



**Suffocation** deaths are most common among infants <1 year old.



**Drowning** deaths are most common among 1–4 year olds.



**Motor vehicle crash** deaths are most common among 5–19 year olds.

Child injury death rates decreased 11% from 2010 to 2019. However, rates increased among some groups.

↑ 50%

Poisoning and drug overdose death rates among Hispanic children

↑ 37%

Poisoning and drug overdose death rates among Black children

↑ 21%

Suffocation death rates among Black children

↑ 9%

Motor vehicle death rates among Black children

Focused prevention strategies can help prevent injuries and deaths.



Family engagement and support, parental monitoring, and school connectedness can reduce substance use.

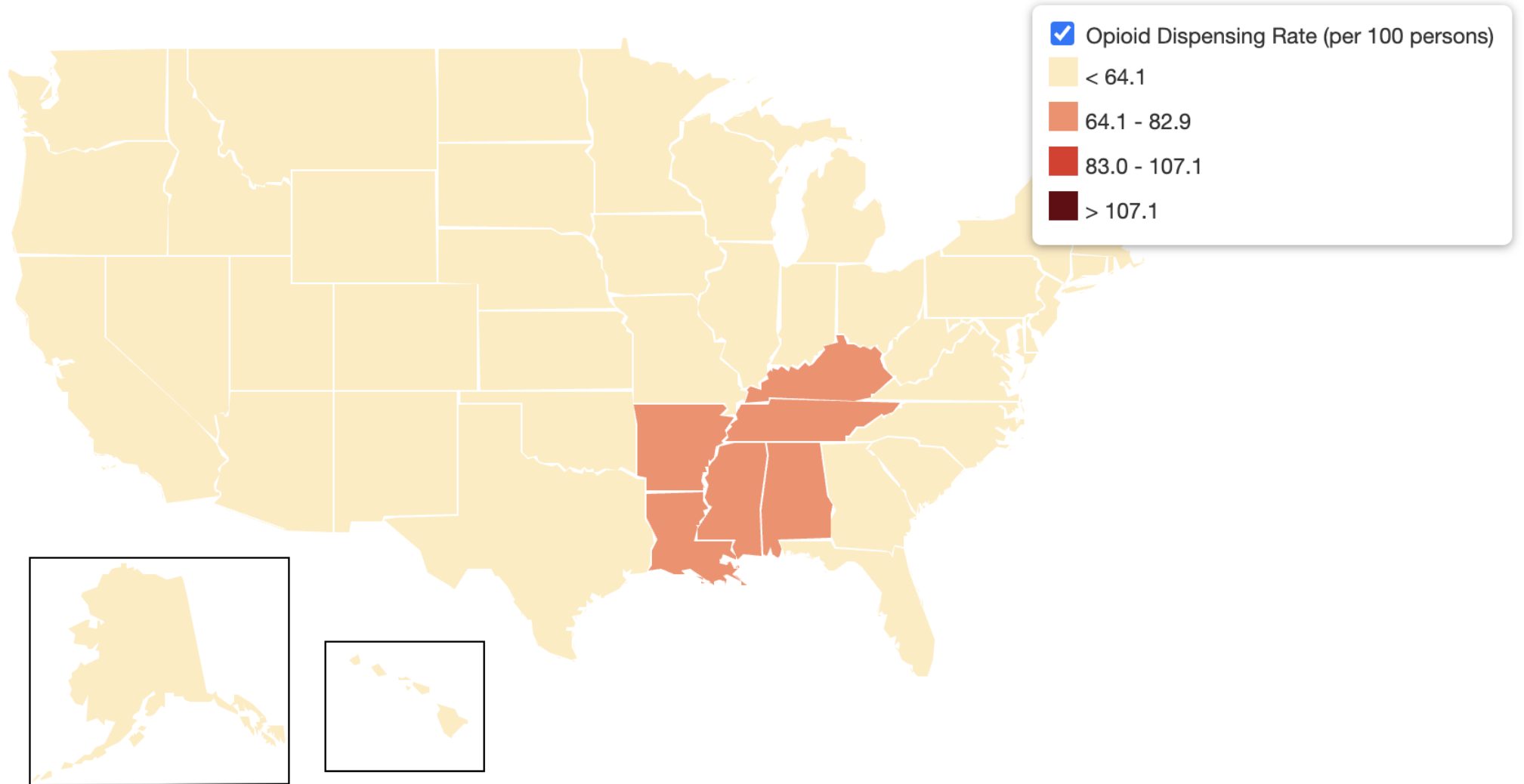


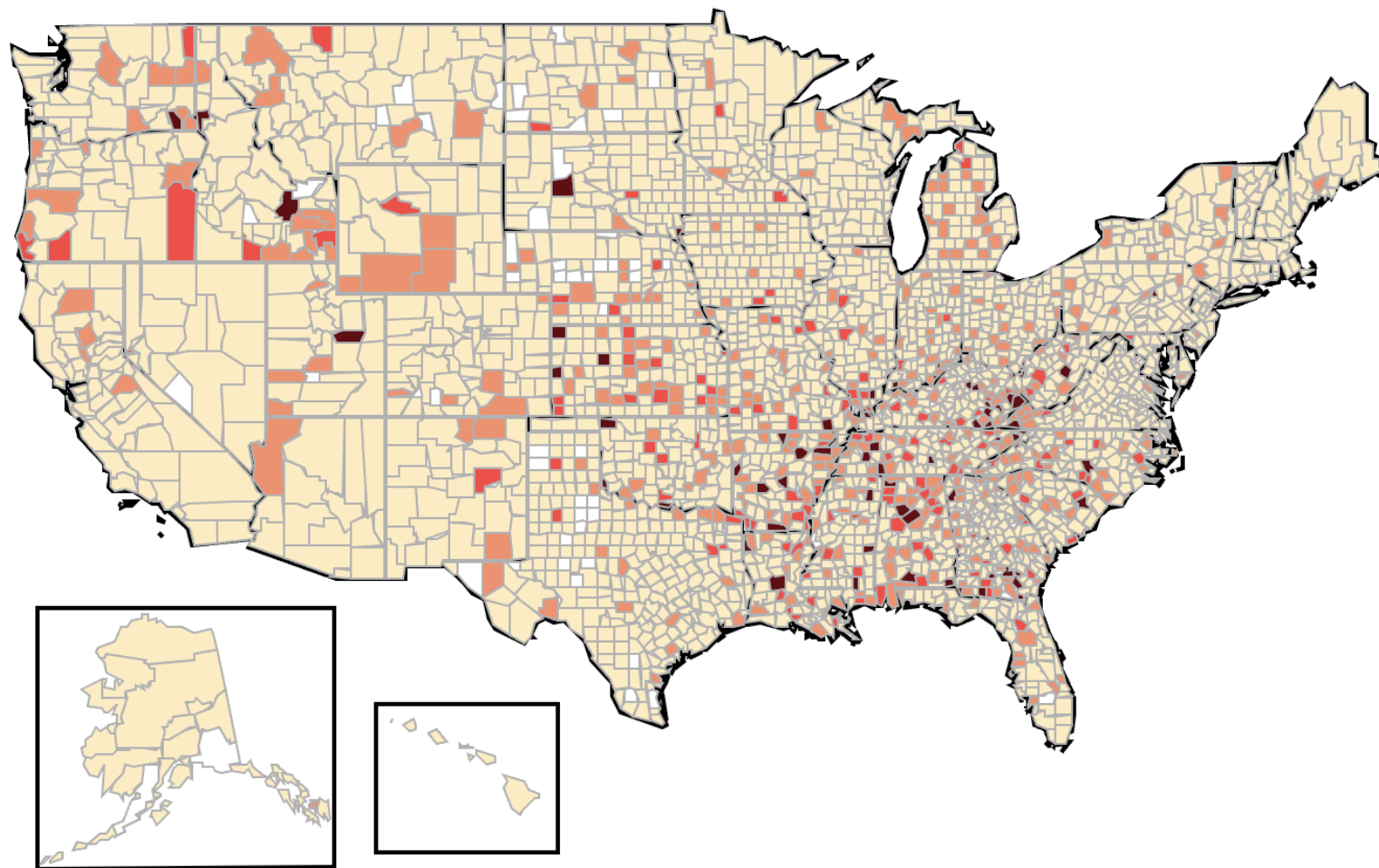
Safe sleep strategies can reduce suffocation deaths among infants.



Proper use of car seats, booster seats, and seat belts can reduce motor vehicle crash injuries and deaths.

# 2019 Dispensing rates





☒ Opioid Dispensing Rate (per 100 persons)

☐ > 57.2

☐ 57.2 - 82.3

☐ 82.4 - 112.5

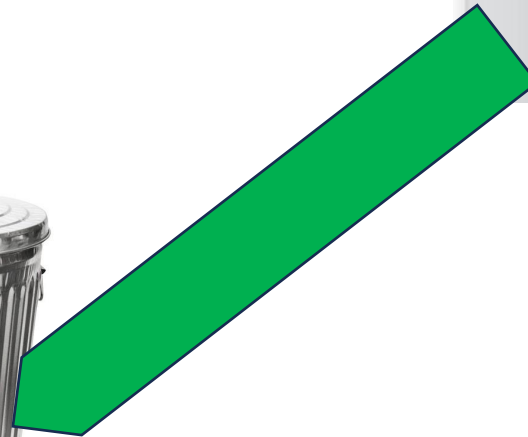
☐ > 112.5

☐ Missing Data

☒ ☐ States

☒ ☐ Inset boxes

# Getting Closer







# Drug Disposal Options

Do you have medicine you want to get rid of?

Do you have a drug take-back option readily available?

Check the [DEA website](#), as well as your local drugstore and police station for possible options.

**NO**

**YES**

Is it on the [FDA flush list](#)?

**NO**

Follow the FDA [instructions for disposing of medicine in the household trash](#).



**YES**

[Immediately flush your medicine in the toilet.](#) Scratch out all personal info on the bottle and recycle/throw it away.

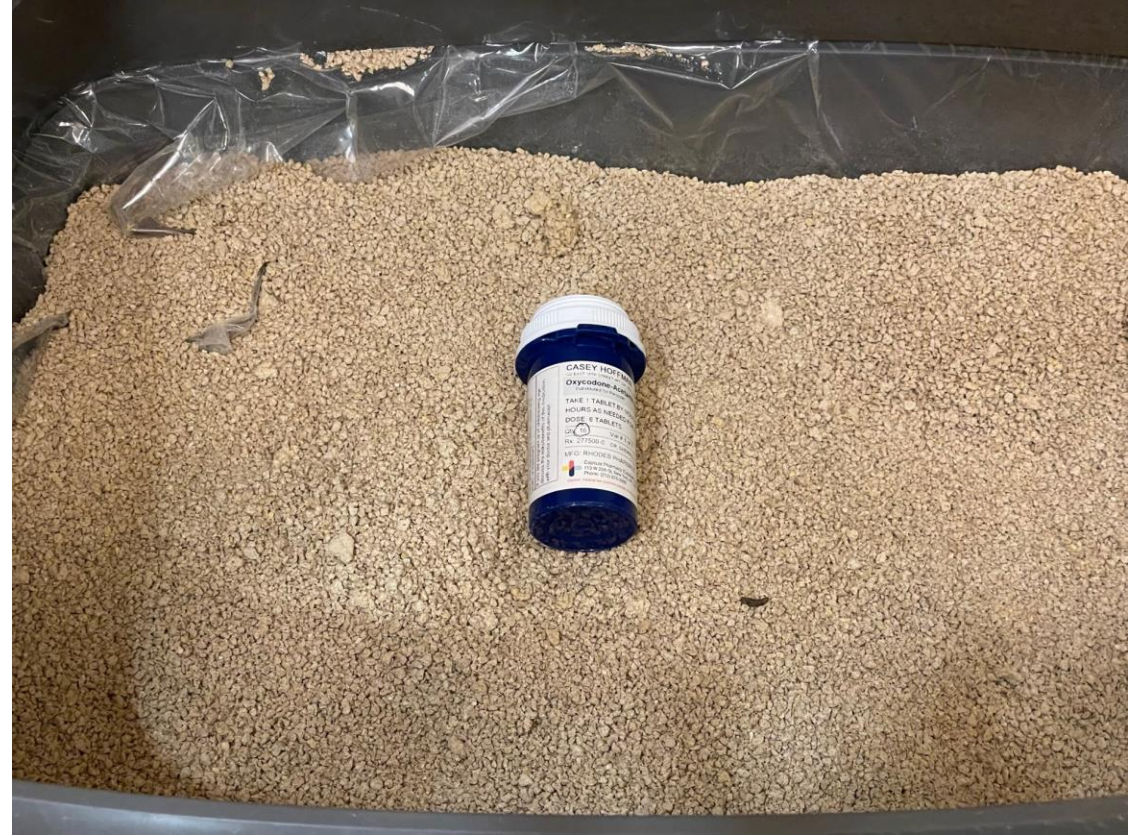


Take your medicine to a drug take-back location.

Do this promptly for [FDA flush list](#) drugs!







## Environmental Chemistry

# The Prevalence of Opioids in US Drinking Water Sources Detected Using Direct-Injection High-Performance Liquid Chromatography–Tandem Mass Spectrometry

Christopher S. Skaggs<sup>a</sup> and Brian A. Logue<sup>b,\*</sup>

<sup>a</sup>GLP Residue Chemistry, SGS North America, Brookings, South Dakota, USA

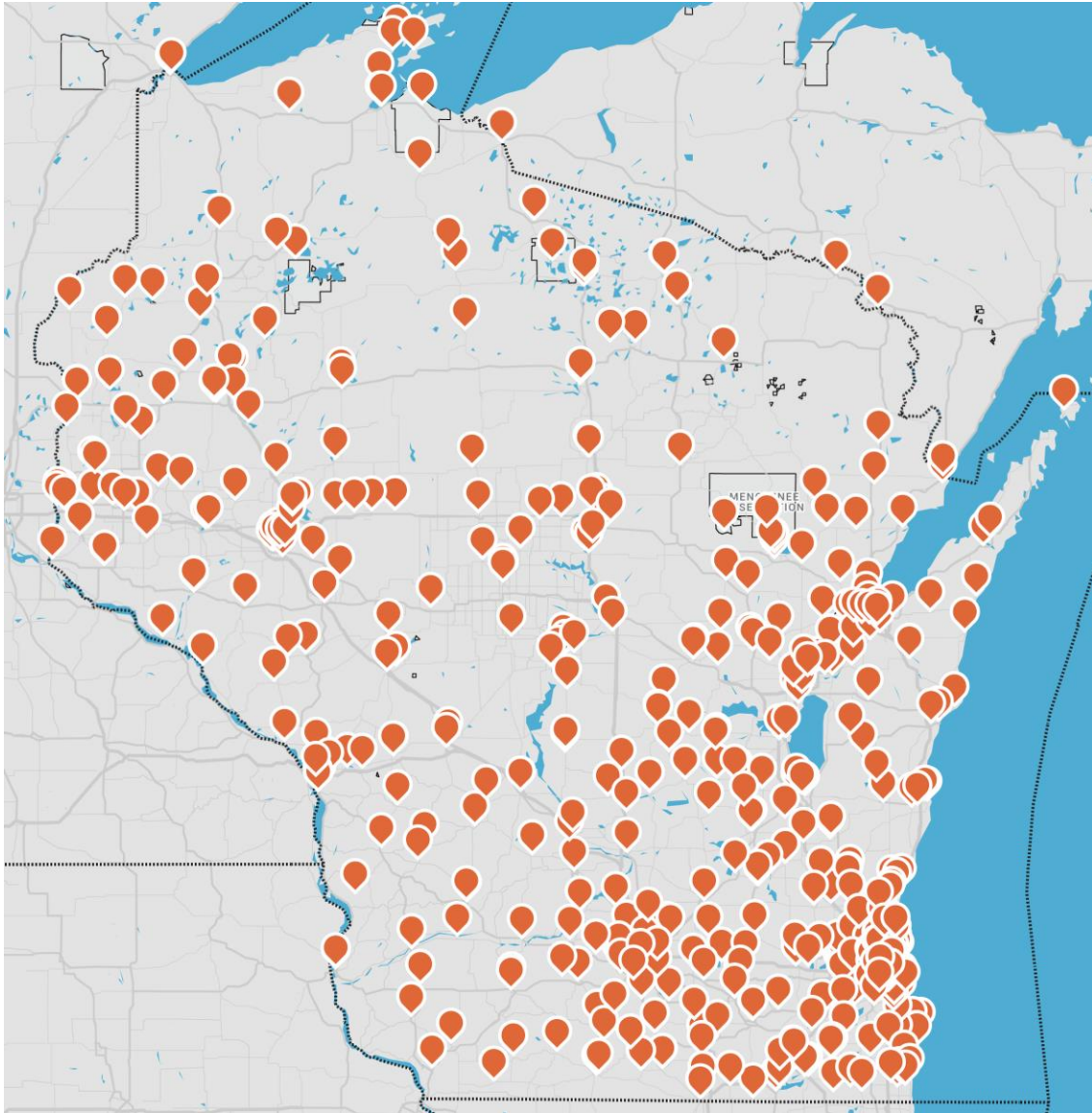
<sup>b</sup>Department of Chemistry and Biochemistry, South Dakota State University, Brookings, South Dakota, USA

“The detection of opioids in a large fraction of the US drinking water samples tested is cause for concern, and these levels should continue to be monitored to ensure that they do not become a threat to human health”



**NATIONAL**  
**PRESCRIPTION**  
**TAKE BACK**  
**DAY**





## Dose of Reality: Permanent Drug Drop Boxes

Permanent drug drop boxes are a convenient way to safely dispose of unused and expired medications.

Stored in a medicine cabinet, these medications can be misused by your family, friends, and other visitors to your home. Thrown in the trash, these medications can fall into the hands of people who have no medical use for them. Flushed down a toilet or poured down a drain, these medications can contaminate our water supply.

That's why we encourage you to dispose of these medications





# In-home disposal



HOME / SHOP / SHARPS / 1.5 QUART SHARPS RETRIEVAL PROGRAM

## 1.5 Quart Sharps Retrieval Program

Item # SA1Q

**\$32.95**

Select an Auto-Ship Frequency: [Learn More](#)

**Auto-Ship price: \$31.30**

- ☐ Monthly (Every 30 days)
- ☐ Bi-Monthly (Every 60 days)
- ☐ Quarterly (Every 90 days)
- ☒ No auto-ship. Make this a one-time purchase.

1

**ADD TO CART**

HOME / SHOP / PHARMACEUTICALS / 1 GALLON MEDICATION RETRIEVAL PROGRAM

## 1 Gallon Medication Retrieval Program

Item # MR1G

**\$51.95**

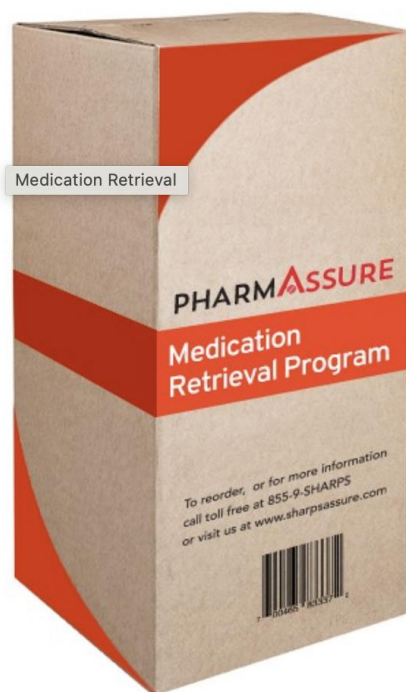
Select an Auto-Ship Frequency: [Learn More](#)

**Auto-Ship price: \$49.35**

- ☐ Monthly (Every 30 days)
- ☐ Bi-Monthly (Every 60 days)
- ☐ Quarterly (Every 90 days)
- ☒ No auto-ship. Make this a one-time purchase.

1

**ADD TO CART**



Medication Retrieval





Model #: T9F732197      MPN #: RX1.OPROLCKBXK

Rx Destroyer™ Drug Disposal Starter Kit (2), Each

★★★★★ | Questions & Answers (0)

Purchase Information

PRICE

\$219.95

Ships in 5 Business Days ⓘ

Estimated Delivery to

Enter zipcode

− +

Apply zipcode(s)

Our kits are designed to provide you with all the tools necessary for safe and easy drug disposal at the lowest price possible. First, decide if you need ALL PURPOSE or LIQUIDS formula. Next, pick the bottle size and mounting system that works best for your facility. – Proper Drug

[See more details](#)

1 ▾



Medication Disposal Pouch\_WO  
Medication Disposal Pouch, Medium • 177mL

Easy online or call-in returns. [Read return policy](#)



☆☆☆☆☆

\$1,099.95 / pk 200 / pk [Sign in to see your price](#)

Part #: HM629026CA

Qty: 200/Pk ×

200/pk 100/pk 3/pk 1ea

Size: Medium • 177mL ×

Large • 354mL Medium • 177mL

1 ADD TO CART

Min. Quantity: 1 ✓ In Stock

+ [Add to List](#)

# Challenges

- One-size-fits-all model likely does not work
  - Can you get people to do this?
  - What system will people accept?
  - What can they afford?
  - Is there evidence of efficacy?
  - Where does the drug eventually end up?

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