# Disposal of Unused Opioids: Opportunities and Barriers

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OPIOID PRESCRIBING ENGAGEMENT NETWORK

#### Funding and Disclosures

#### Funding

- NIH Common Fund UM1 NS118922
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- Michigan Department of Health and Human Services
- SAMHSA
- CDC
- Precision Health Initiative
- Department of Anesthesiology

#### Disclosures

- Patent for the use of peripheral perineural dexmedetomidine alone and in combination with local anesthetics. Application number 12/791,506; Issue Date 4/2/13; Patent Number 8410140
- Consultant-Heron Therapeutics, Vertex Pharmaceuticals, Alosa Health, and the Benter Foundation; Expert Testimony

#### 525 Foundation





Website: <a href="https://525foundation.org">https://525foundation.org</a>

#### Framing the problem



Opioids prescribed for acute care often go unused



Unused pills are often not disposed of and become a source for misuse



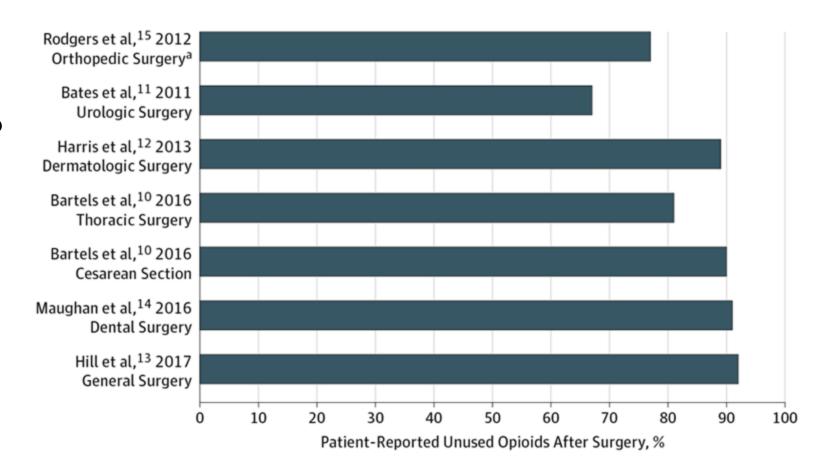
Environmental agencies discourage flushing



This is NOT an issue for people who use opioids routinely for chronic pain

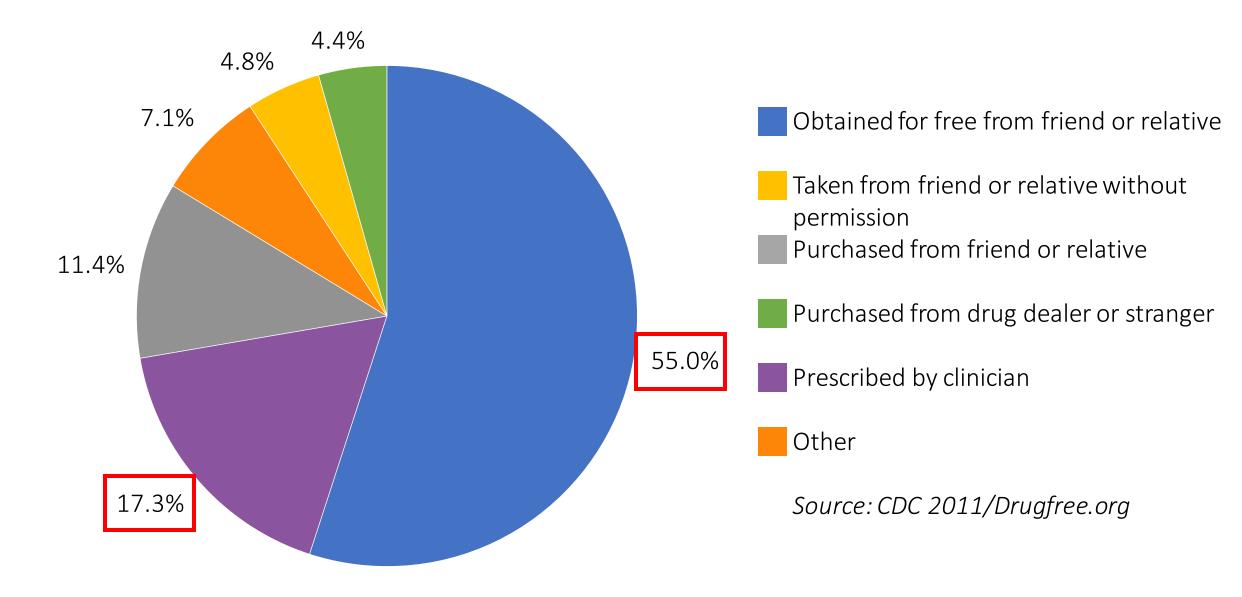
## Prescription opioids are commonly unused after surgery

- 6 studies of 810 patients
- Unused opioids in 67% to 92% of patients
- Of all pills, 42% to 71% unused
- 73% to 77% stored unsafely





#### Sources of Prescription Opioid Abuse



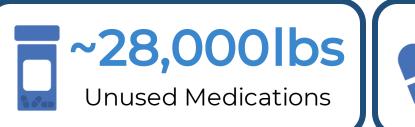
## TAKE BACK EVENTS

#### community locations

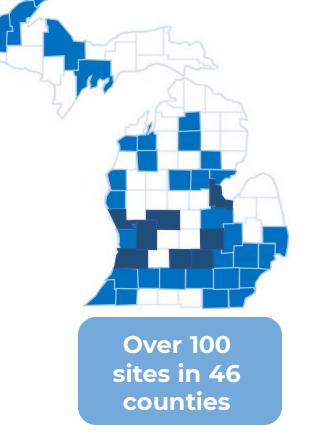














## Acute care most common reason for opioid prescribing among those disposing at medication disposal event

Reason Prescribed	N	% (out of total disposal number)
<b>Acute Care</b>		
Surgery	402	40%
Dentistry	115	11%
Other Acute Care	75	7%
Chronic Pain	181	18%
Unknown	237	23%

Medication Disposal Drive Data 2016 and 2017 Ann Arbor, MI

## Multiple options for safe disposal



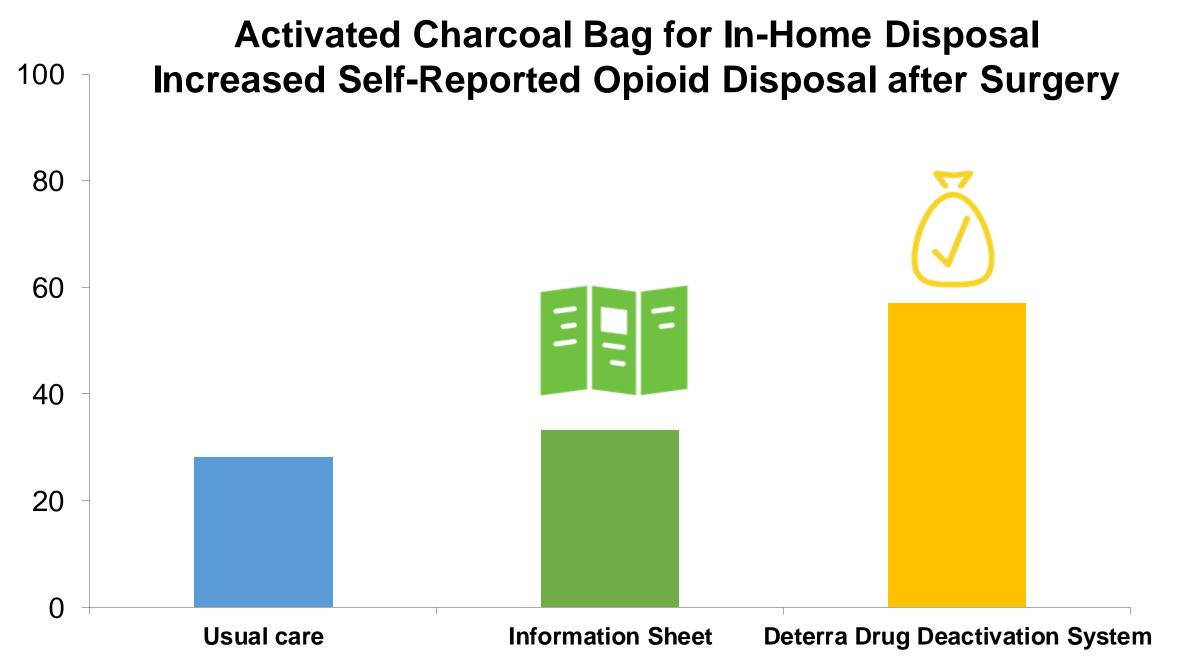
Drug take back events



In-home disposal



Mail back programs

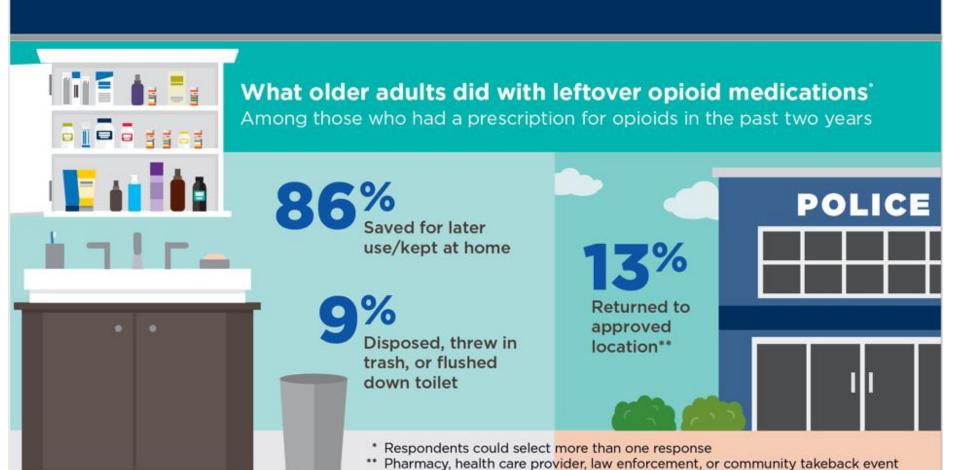


## Other RCTs of in-home disposal devices

	Number of participants	Disposal bag (n [%] disposed)	Control (n [%] disposed)	
Lawrence et al  JAMA Peds 2019;173(8)	n = 202	66 of 92 (71.6%)	50 of 66 (56.2%)	Difference in proportions, 15.5% (95%CI, 1.7%-29.3%; p=0.03)
Agarwal et al  JAMA Net Open 2022;5(5)	n = 302	75 of 125 (60%)	47 of 110 (42.7%)	Odds of self-reported disposal 2.01 (95%CI, 1.2-3.4)
Bicket et al Pain Med 2021; 22(4)	n = 499	10 of 73 (14%)	6 of 63 (10%)	Risk ratio1.15 (95% confidence interval, 0.44 to 3.01)

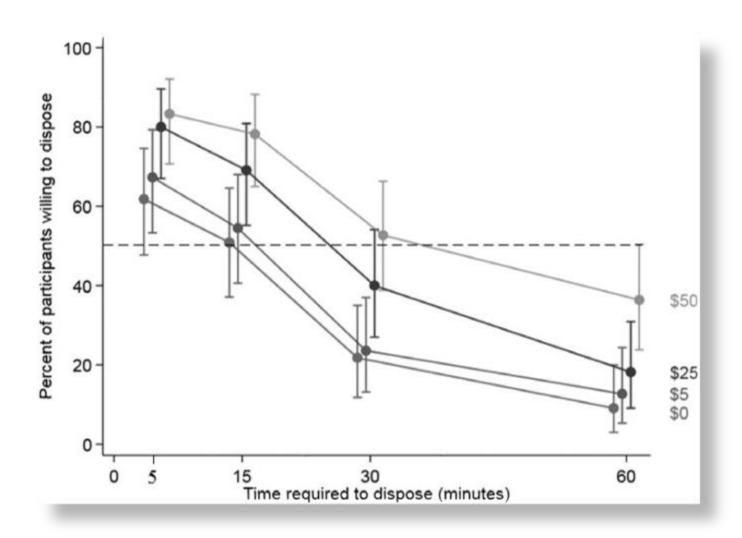
## NATIONAL POLL ON HEALTHY AGING





Harbaugh et al. Reg Anes & Pain Med 2020;45

## Disposal convenience influences willingness to dispose more than financial incentives



### **Facilitators of Disposal**

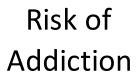














Risk of Theft

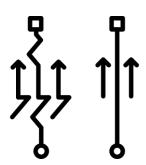


Risk of Environmental Harms

### **Barriers to Disposal**



Lack of Awareness



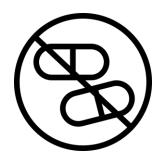
Less Convenient Method or Process



Smaller Financial Incentive



Anticipation of Future Pain



Perception of Opioid Scarcity



Desire to
Misuse Opioids



Low Perceived Risk



Breakdown of Patient/Provider Relationship







OPEN toolkits for safe disposal



Find a safe disposal location near you.



https://michigan-open.org/safeopioid-disposal/

## Our Initiatives





#### Co-Directors of OPEN at the University of Michigan



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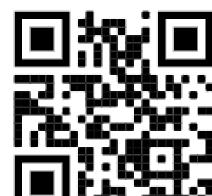
### The Team.



## Thank you!



Evidence. Resources. Engagement.



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