



# Medication First: Integration of Opioid Use Disorder Treatment Across the Healthcare System

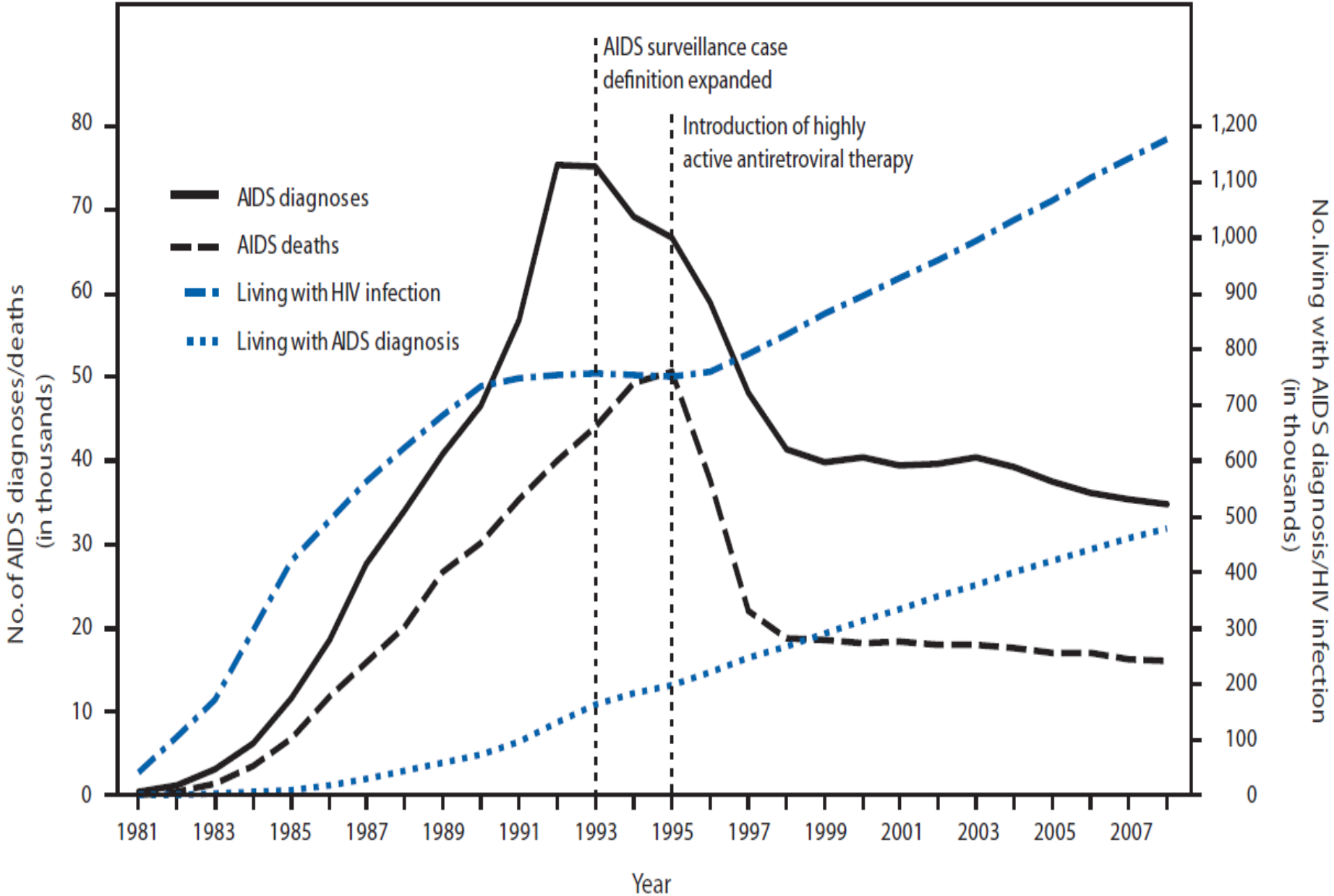
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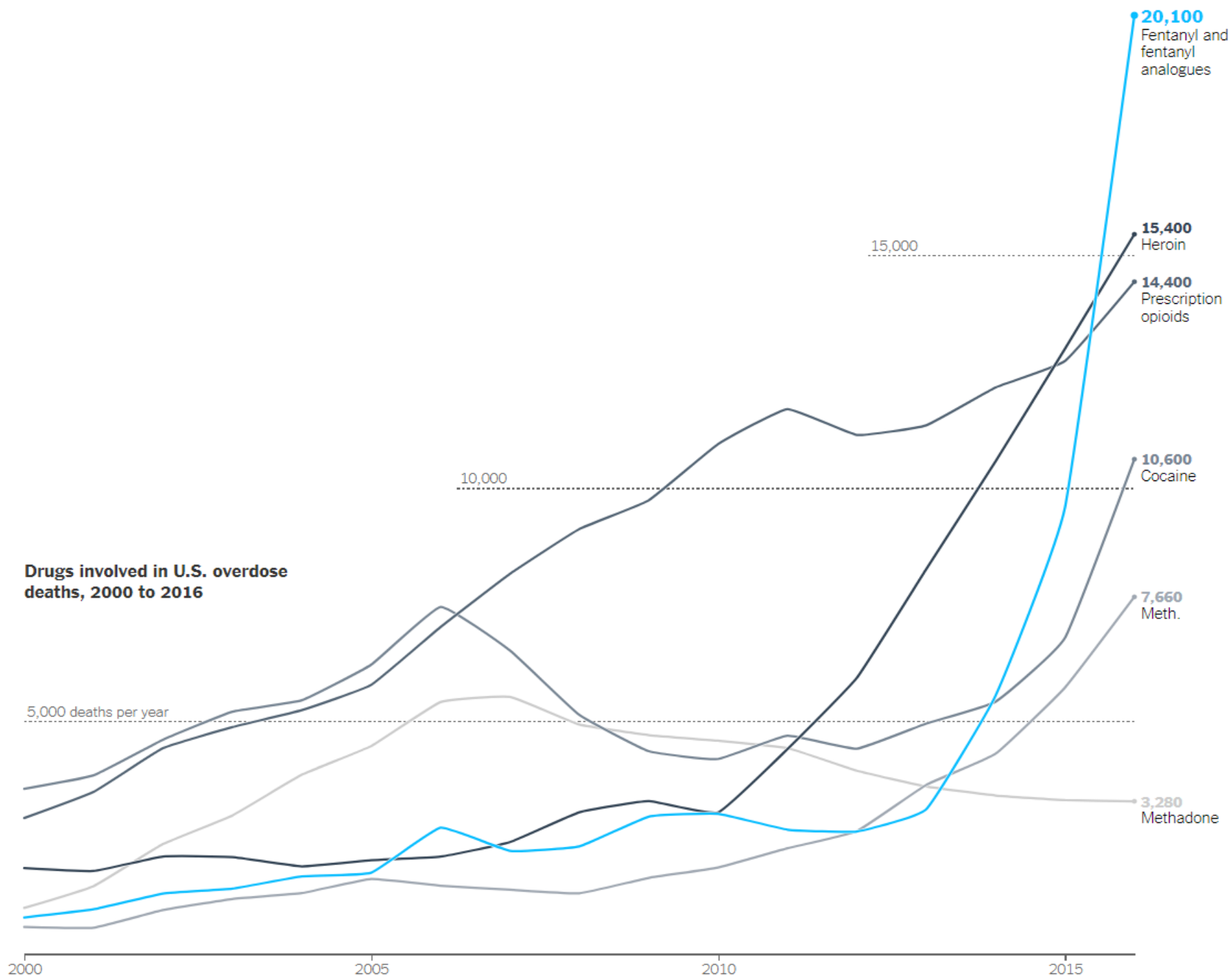
# Primary Collaborators – Thanks!

- **Rachel Winograd**, Ph.D., University of Missouri St. Louis
  - The entire Missouri **STR team**
- **Rick Grucza**, Ph.D., Washington University in St. Louis
  - **Luis Giuffra**, MD, Clayton Behavioral
  - **Missouri Department of Mental Health**

FIGURE. Estimated number of AIDS diagnoses and deaths and estimated number of persons living with AIDS diagnosis\* and living with diagnosed or undiagnosed HIV infection† among persons aged ≥13 years — United States, 1981–2008



Drugs involved in U.S. overdose deaths, 2000 to 2016





GLOBAL  
COMMISSION ON  
DRUG POLICY

POSITION PAPER

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# THE OPIOID CRISIS IN NORTH AMERICA

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October 2017





Throughout the crisis, media accounts have tended to highlight “innocent victims”—people who became addicted following medical exposure to opioids. However, data from the United States from recent years shows that 70-80%<sup>26</sup> of people who misuse medical opioids get them from sources other than their doctor: usually from family and friends or simply by taking them from other people’s medicine cabinets. And while chronic pain is highest among older people, addiction risk is highest among the young. New addictions are uncommon among pain patients who do not have current or past addictions (including alcoholism) or mental illness.<sup>27</sup> It has further been reported that the availability of prescription opioids has increased among those already using drugs.<sup>28</sup>

#### INADEQUATE TREATMENT AND OTHER SERVICES

North Americans who have become addicted to prescription opioids find health systems completely unprepared to deal with their needs. In both the United States and Canada, treatment is still dominated by abstinence-focused programs.<sup>29</sup> Relapse following detoxification is extremely

common and, in this period, the risk of overdoses is heightened due to loss of tolerance.<sup>30</sup> In contrast, opioid substitution therapy has been proven to reduce mortality, typically using methadone or buprenorphine.<sup>31</sup>

Prejudice against opioid substitution therapy with methadone and buprenorphine—and the over-regulation of these drugs—has negatively affected the response to the crisis. In the United States, as of 2015, only 8-10% of treatment programs offered opioid substitution therapy,<sup>32</sup> often provided for periods too limited to be effective.<sup>33</sup> Insurance coverage of addiction treatment has improved to some extent and “parity” with treatment for physical conditions is required under the Affordable Care Act. Treatment providers are not required, however, to meet any federal standards, and the care on offer is rarely based on evidence.<sup>34</sup> Outright fraudulent, abusive and neglectful treatment is common.<sup>35</sup>

Over-regulation of opioid substitution therapy also means that methadone treatment is provided only in specialized,

#### OPIOID SUBSTITUTION THERAPY, MAINTENANCE AND MEDICATION ASSISTED TREATMENT

Opioid substitution therapy (OST), also called opioid replacement therapy (ORT), opioid agonist therapy (OAT) or maintenance, involves replacing street opioid use with medical use under some degree of supervision, typically with a longer-acting opioid. Commonly used drugs for opioid substitution therapy are methadone or buprenorphine (Suboxone, Subutex).

Opioid substitution therapy, continued as long as needed, including indefinitely, is the only treatment repeatedly shown to cut the death rate from opioid addiction by 50% or more<sup>36</sup> and it is the most effective known treatment for opioid addiction according to the World Health Organization (WHO).<sup>37</sup> It is endorsed by several UN agencies,<sup>38</sup> the US National Institute on Drug Abuse,<sup>39</sup> Health Canada,<sup>40</sup> the U.K.’s National Institute of Health and Care Excellence,<sup>41</sup> the US Institute of Medicine,<sup>42</sup> and many others. It has been repeatedly shown to reduce the spread of HIV and other blood-

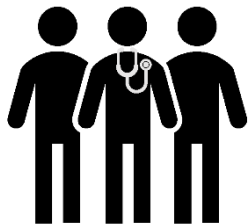
borne diseases, reduce drug use and injecting, as well as cutting crime.<sup>43</sup>

When on opioid substitution therapy, a person does not get “high” and does not suffer from withdrawal symptoms. Craving is reduced. Addiction is replaced by physical dependence. Once stabilized, most patients can drive, work and care for their families,<sup>44</sup> benefiting from no longer being criminalized. Other patients, however, can still benefit from opioid substitution therapy because it reduces overdose risk by maintaining tolerance to opioids (i.e. a patient who relapses and uses heroin can withstand the dose they were used to) and reducing the rate of use.

There is significant literature from Europe demonstrating that providing supervised access to pharmaceutical heroin itself (heroin-assisted treatment or HAT) is effective for the small number of people for whom methadone treatment does not work.<sup>45</sup> Drugs like hydromorphone

(Dilaudid) are also showing promise.<sup>46</sup>

In the United States, a monthly injectable form of long-acting naltrexone (Vivitrol) was approved in 2010 as a third medication option for opioid addiction treatment.<sup>47</sup> In the United States, opioid substitution therapy and extended release naltrexone are grouped together in the category “medication assisted treatment” (MAT), to distinguish these treatments from abstinence-only methods. Less than half a dozen trials of long-acting naltrexone have been published and they show promising results in terms of reducing relapse.<sup>48</sup> There is little long-term data, however, and extended-release naltrexone has not been shown to reduce mortality or disease. It may even increase overdose death risk upon cessation.<sup>49</sup> Vivitrol is not approved in Canada, although it is available under the country’s special access program in reaction to the opioid crisis.<sup>50</sup>



Prejudice against opioid substitution therapy with methadone and buprenorphine—and the over-regulation of these drugs—has negatively affected the response to the crisis. In the United States, as of 2015, only 8-10% of treatment programs offered opioid substitution therapy.<sup>32</sup>



Prejudice against opioid substitution therapy with methadone and buprenorphine—and the over-regulation of these drugs—has negatively affected the response to the crisis. In the United States, as of 2015, only 8-10% of treatment programs offered opioid substitution therapy,<sup>32</sup>





# Opioid Use Disorder and Type 2 Diabetes

- Heritable
- Genetic vulnerability activated by environmental exposure
- Progressive
- Often managed with medication and lifestyle change
- Full or partial remission is often followed by flareups and the need for additional treatment
- *Sustained, uncomplicated remission is the exception not the rule*



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*Arch Intern Med.* 2010 September 27; 170(17): 1566–1575. doi:10.1001/archinternmed.2010.334.

## **Long Term Effects of a Lifestyle Intervention on Weight and Cardiovascular Risk Factors in Individuals with Type 2 Diabetes: Four Year Results of the Look AHEAD Trial**

The Look AHEAD Research Group



Without intensive lifestyle change  
intervention



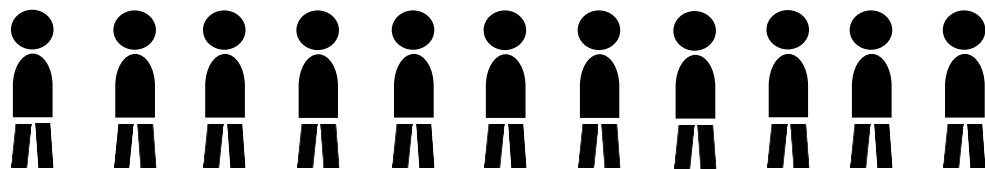


# With intensive lifestyle change intervention



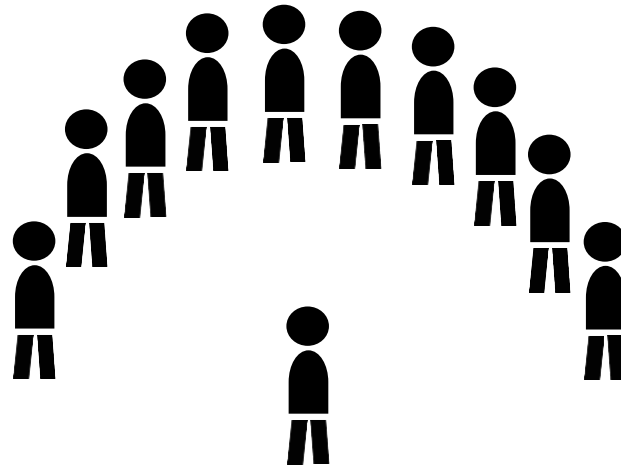


With intensive lifestyle change  
intervention



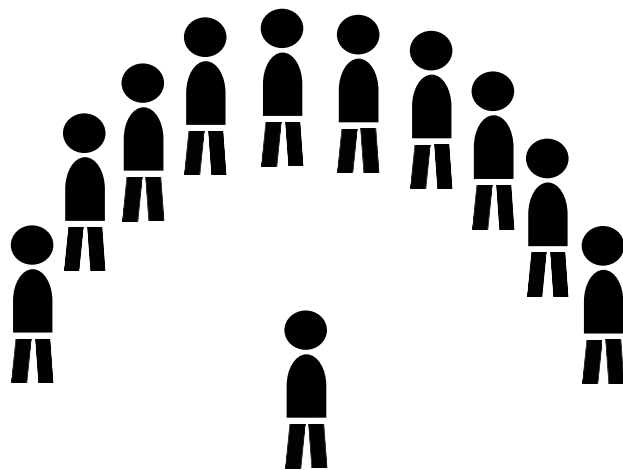


Can people get off medication through lifestyle change?





“It works if you work it”





# The Science of Recovery





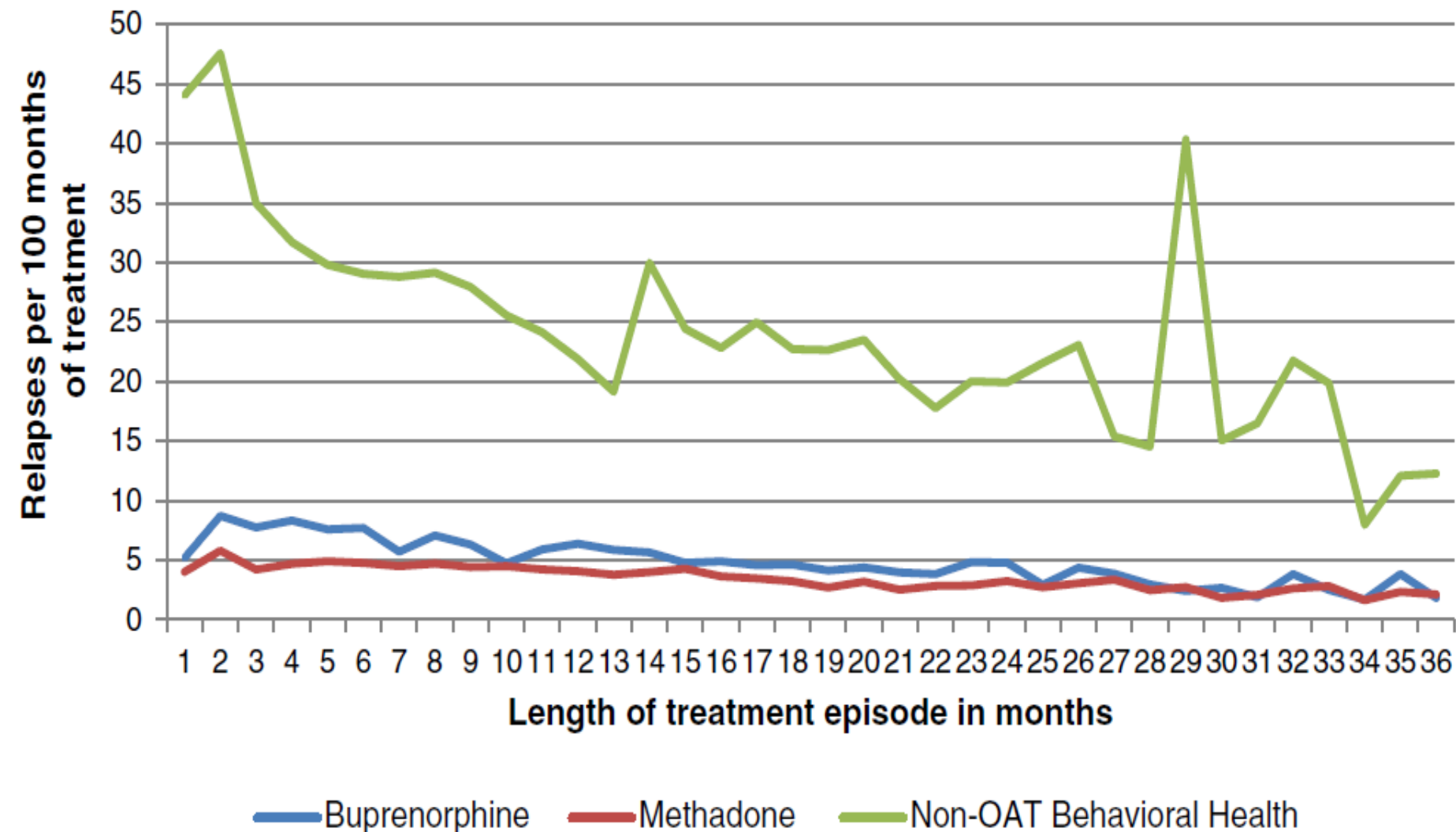


Figure 4. Clark, Robin E., et al. "Risk factors for relapse and higher costs among Medicaid members with opioid dependence or abuse: opioid agonists, comorbidities, and treatment history." *Journal of substance abuse treatment* 57 (2015): 75-80.



## Retention at 12 months

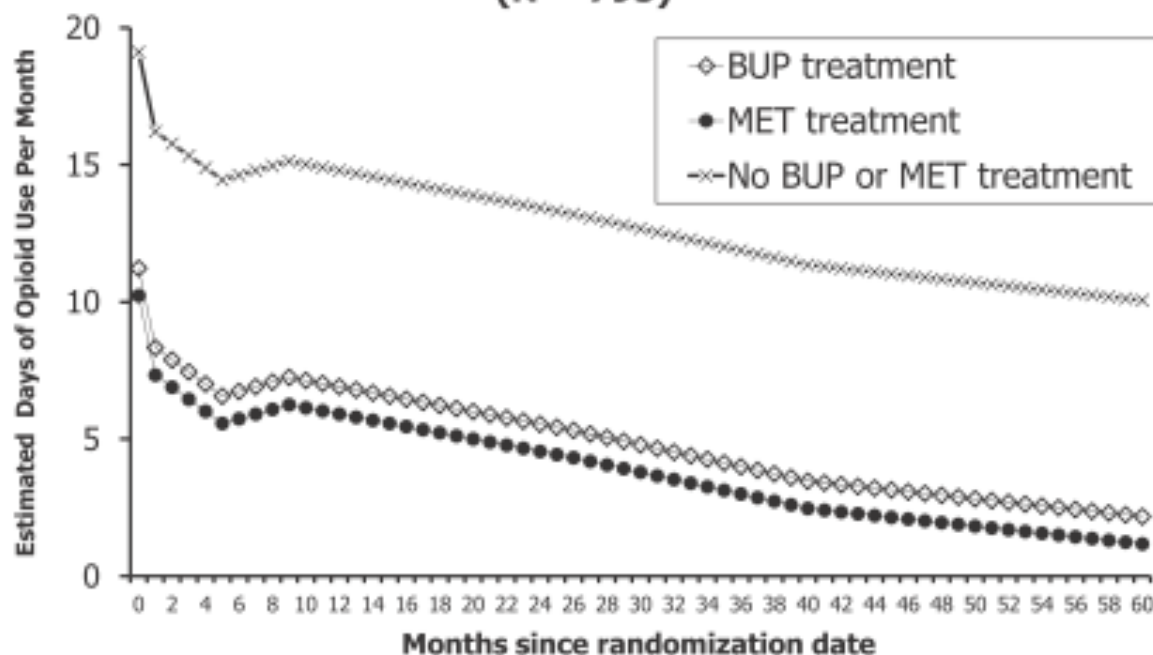
Methadone 52%

Buprenorphine 33%

Non-OAT Tx 12%



### Estimated Days of Opioid Use by the Types of Treatment Based on Model 4 (N = 795)<sup>††</sup>



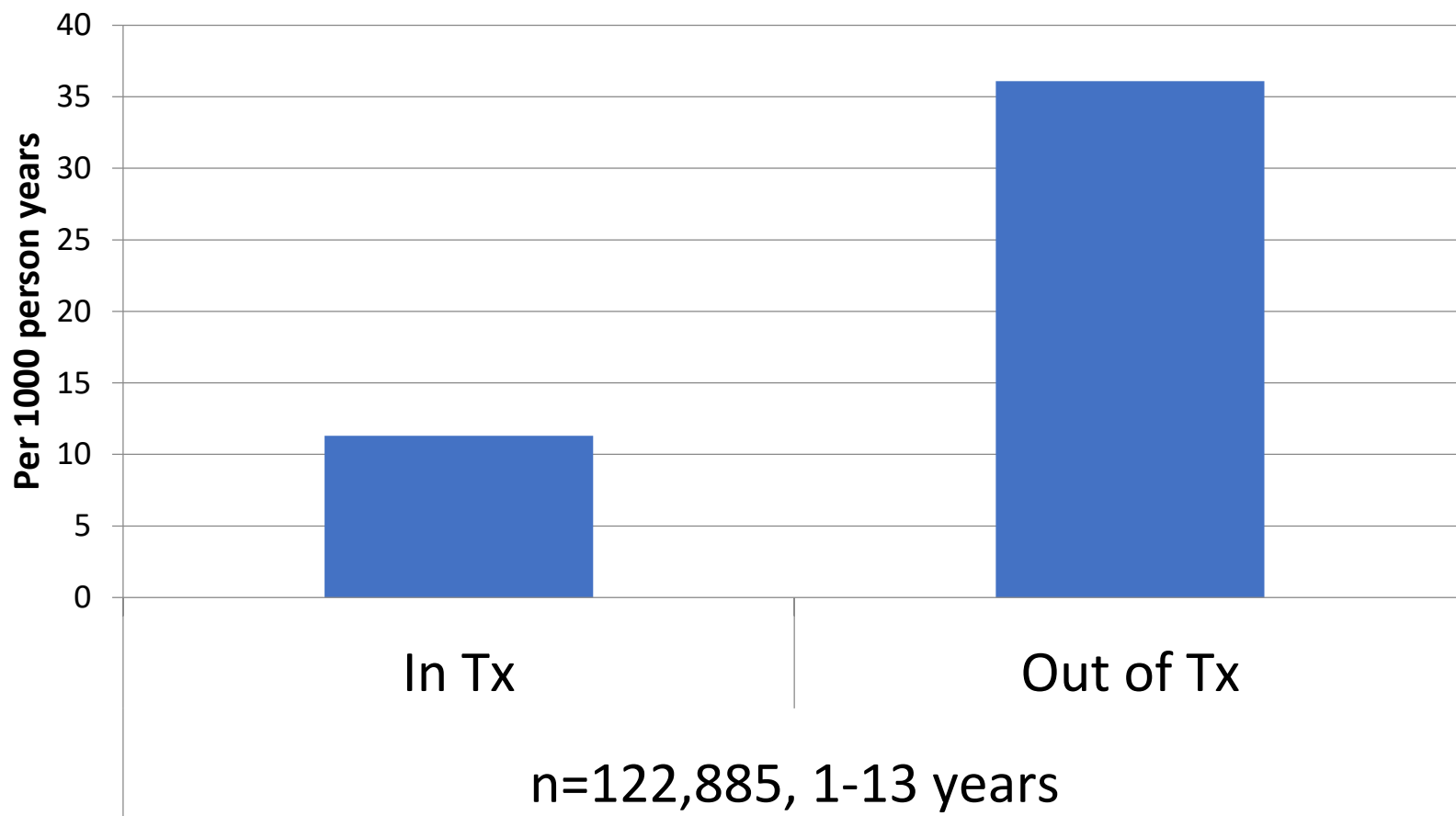
<sup>††</sup>The number of participants in each type of treatment varied in each month and is therefore not indicated in the figure; on average over the follow-up period, each month there were about 14.2% of the participants in BUP treatment, 38.5% in MET treatment, and 46.9% in neither BUP nor MET treatment.

**Figure 4** Estimated days of opioid use by the types of treatment based on model 4 ( $n = 795$ )<sup>††</sup>. BUP:buprenorphine; MET:methadone.

Hser, Yih-Ing, et al. "Long-term outcomes after randomization to buprenorphine/naloxone versus methadone in a multi-site trial." *Addiction* (2016).



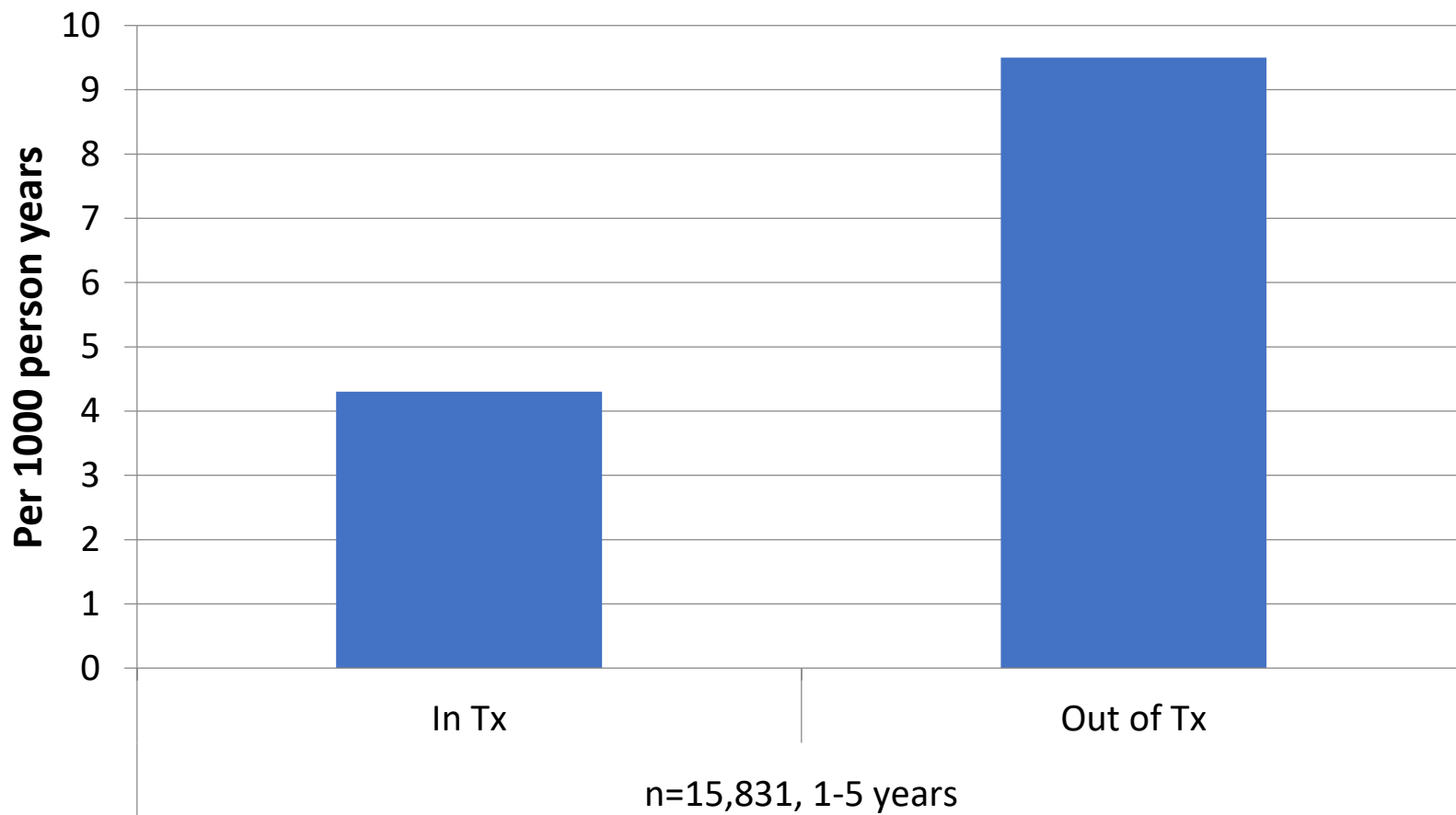
# Mortality Risk in and out Methadone Treatment



Sordo, Luis, et al. "Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies." *bmj* 357 (2017): j1550.



# Mortality Risk in and out Buprenorphine Treatment



Sordo, Luis, et al. "Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies." *bmj* 357 (2017): j1550.



## France Buprenorphine Initiative

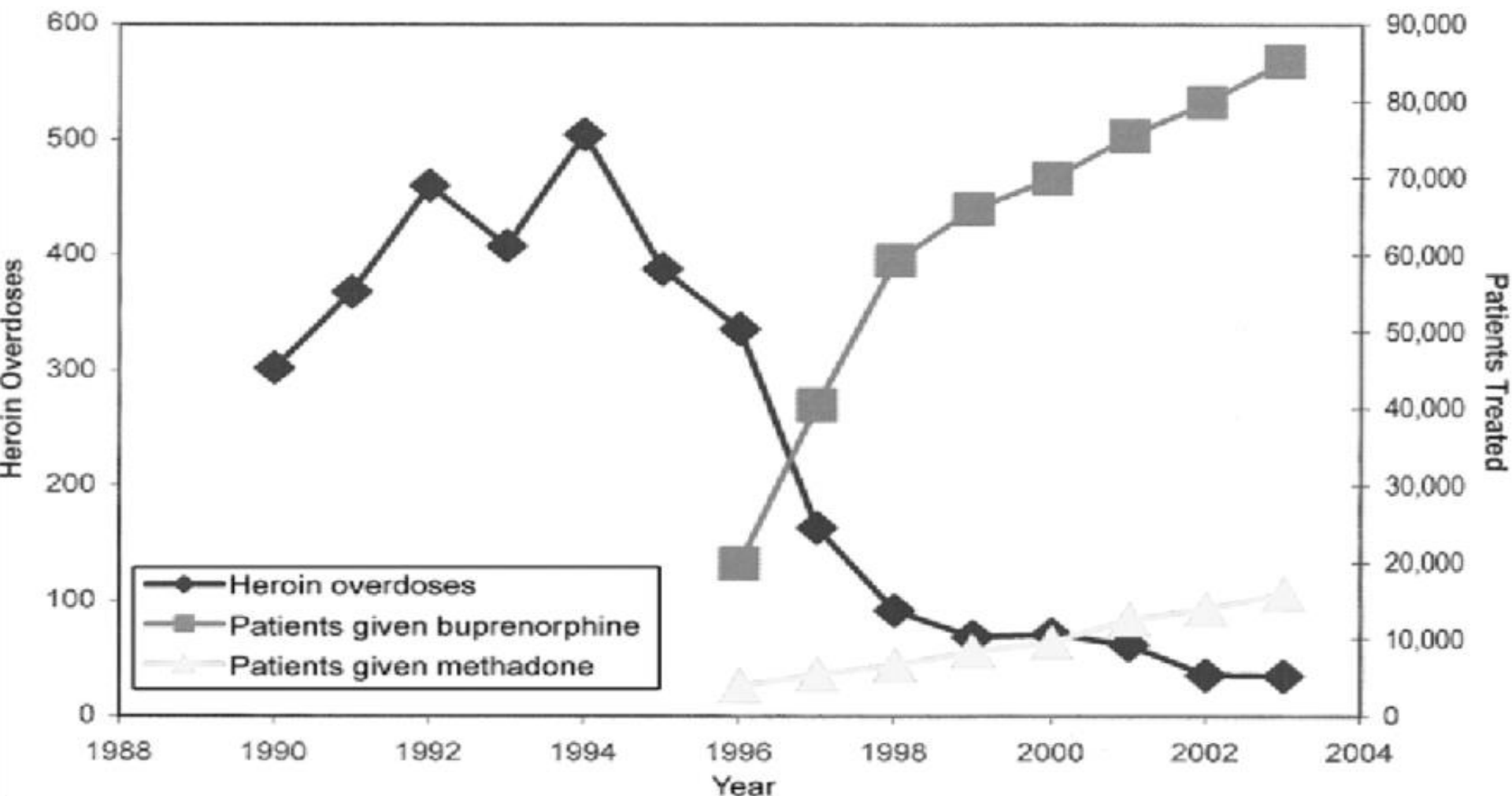
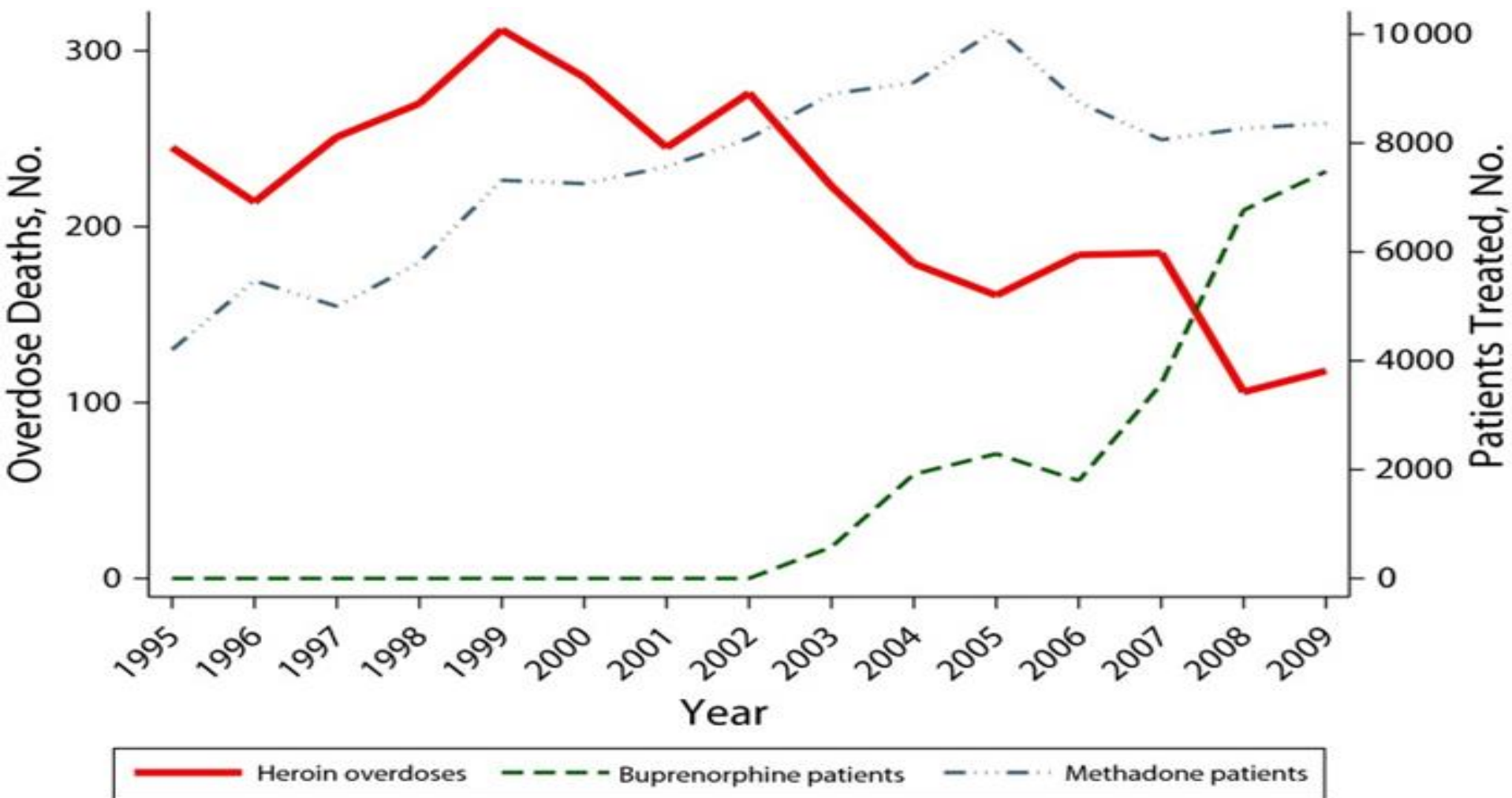


Figure 2. From: Carrieri, Maria Patrizia, et al. "Buprenorphine use: the international experience." *Clinical Infectious Diseases* 43.Supplement 4 (2006): S197-S215.



## Baltimore Buprenorphine Initiative



Schwartz, Robert P., et al. "Opioid agonist treatments and heroin overdose deaths in Baltimore, Maryland, 1995–2009." *American journal of public health* 103.5 (2013): 917-922.

## Combined psychosocial and agonist maintenance interventions for treatment of opioid dependence

### Authors' conclusions:

For the considered outcomes, it seems that adding any psychosocial support to standard maintenance treatments do not add additional benefits. Data do not show differences also for contingency approaches, contrary to all expectations. Duration of the studies was too short to analyse relevant outcomes such as mortality. It should be noted that the control intervention used in the studies included in the review on maintenance treatments, is a program that routinely offers counselling sessions in addition to methadone; thus the review, actually, did not evaluate the question of whether any ancillary psychosocial intervention is needed when methadone maintenance is provided, but the narrower question of whether a specific more structured intervention provides any additional benefit to a standard psychosocial support. These interventions probably can be measured and evaluated by employing diverse criteria for evaluating treatment outcomes, aimed to rigorously assess changes in emotional, interpersonal, vocational and physical health areas of life functioning.

### Considered Outcomes

- Retention
- Illicit Opioid Use





## Discontinuing

The majority of patients who discontinued BMT did so involuntarily, often due to failure to follow strict program requirements, and 1 month following discontinuation, rates of relapse to illicit opioid use exceeded 50% in every study reviewed.



## Suboxone and 12-steps

173 persons in office-based maintenance  
Suboxone treatment, followed for six months.

No time limit on their use of Suboxone.



## Suboxone and 12-steps

### At 18 months, the 76% of patients on continuous Suboxone

#### less likely to report

- using any substance
- using heroin
- damaging a close relationship
- doing regretful or impulsive things
- hurting family
- experiencing negative personality changes
- failing to do things expected of them
- taking foolish risks
- being unhappy
- having money problems

#### more likely to report

- AA “home group”
- “sponsor”
- attending 3+ 12-step meetings per week
- to have been employed at baseline
- to be employed at follow-up



## Medication First Model

***Housing First is a homeless assistance approach that prioritizes providing people experiencing homelessness with permanent housing as quickly as possible – and then providing voluntary supportive services as needed. This approach prioritizes client choice in both housing selection and in service participation.***



## Medication First Model

***Medication First attempts to get persons with opioid use disorder maintenance medical treatment as quickly as possible and then provides voluntary supportive services as needed. This approach prioritizes client choice in both service selection and service participation.***



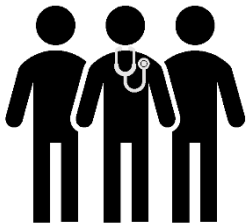
## WHO guidelines

- p. 19-20 "treatment services should not deny effective medication if they are unable to provide psychosocial assistance, or if patients refuse"
- p. 38 "While patients should be offered psychosocial support, they should not be denied agonist maintenance treatment should they refuse such support."



## MO DMH New Guidance

- Persons with OUD should ***receive medical stabilization prior to undergoing lengthy assessment processes*** or psychosocial interventions.
- ***Individualized psychosocial treatment should be offered to patients, but not required as a condition of medical treatment.***

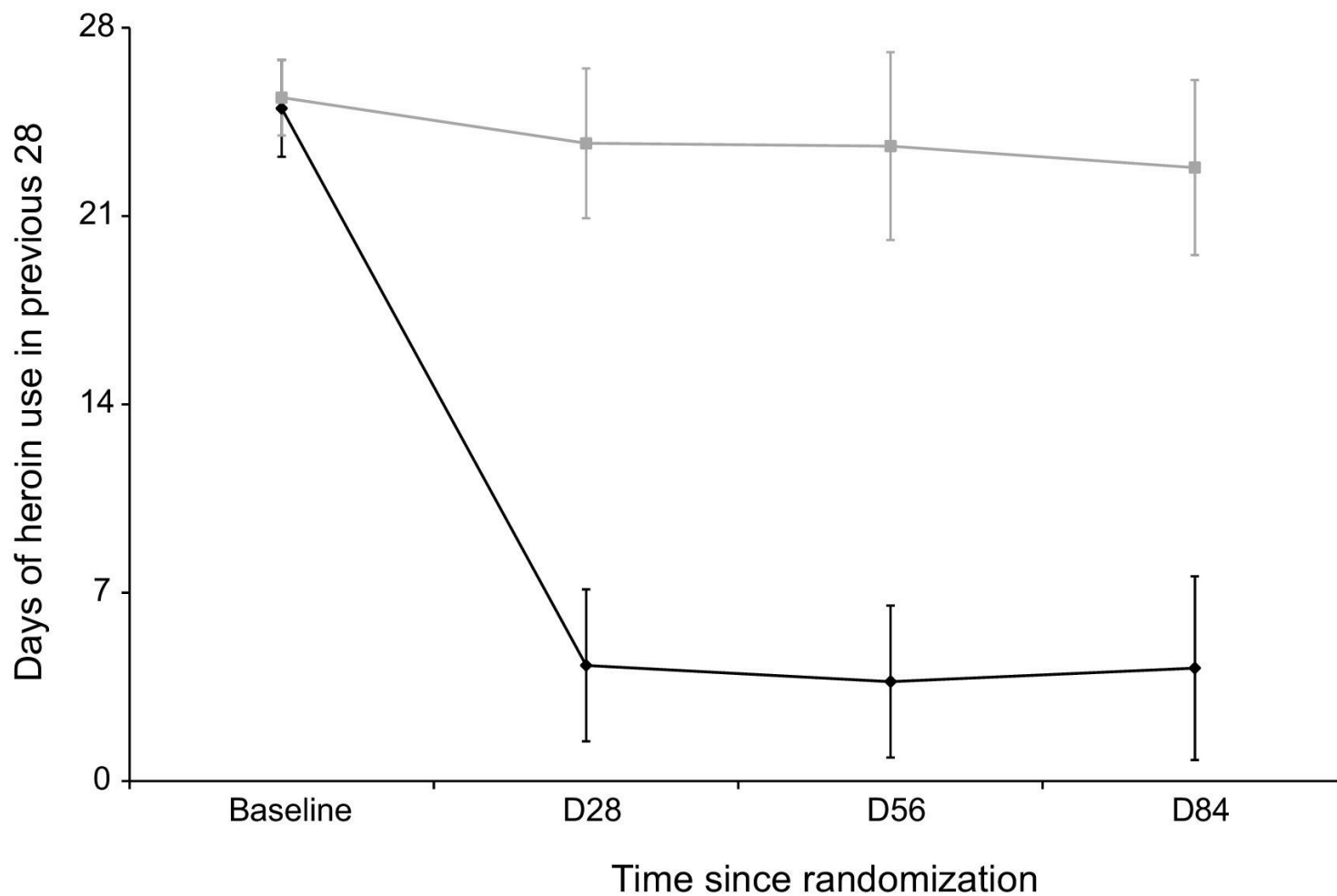


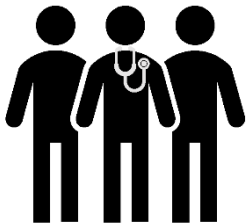
- ***Medical treatment should never be withdrawn unless it is clearly worsening the patient's condition.***
- The medical management of OUD should be ongoing, ***not subject to arbitrary time limits or tapering requirements.***





## Waitlist Buprenorphine

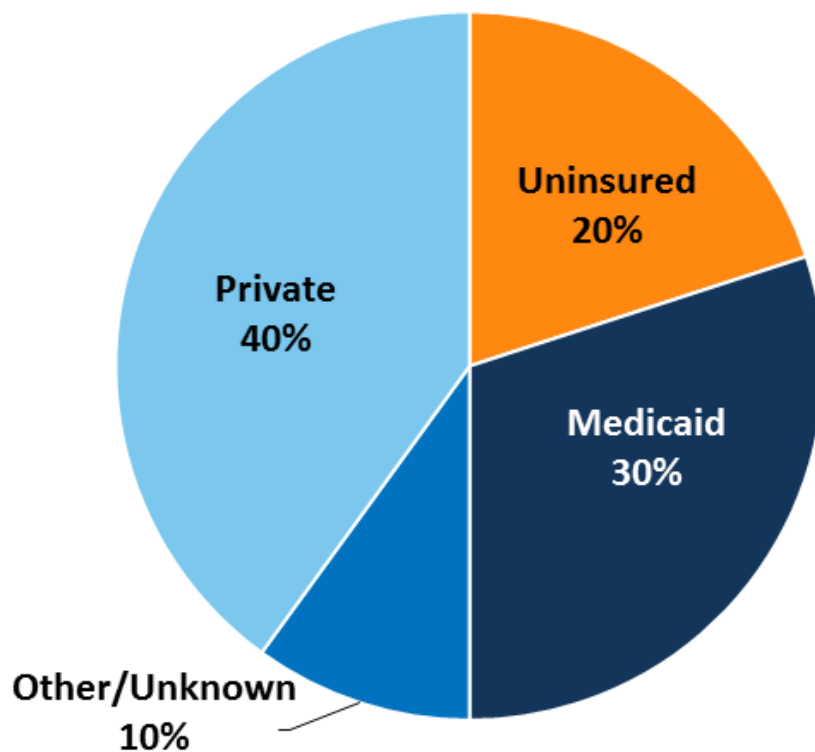




## Historical and Structural Considerations



## Insurance Status of Adults with Opioid Addiction



**Total: 2.2 million people**

SOURCE: Kaiser Family Foundation analysis of the 2015 National Survey of Drug Use and Health (NSDUH)



# Treatment System in 2002

Regular article

## Overview of 5-year followup outcomes in the drug abuse treatment outcome studies (DATOS)

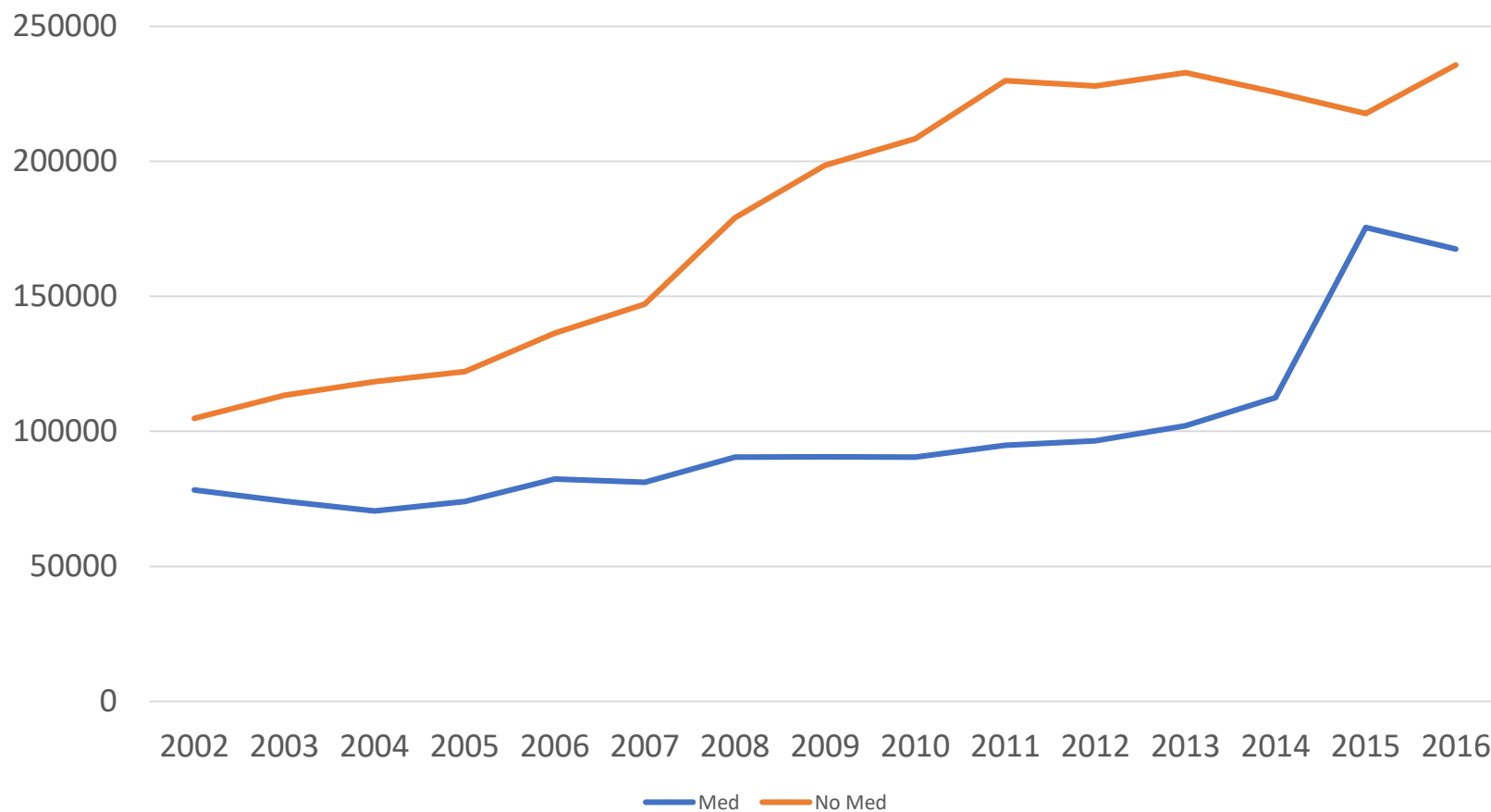
Robert L. Hubbard, Ph.D., M.B.A. \*, S. Gail Craddock, M.S., Jill Anderson, M.S.

*Institute for Community-Based Research, National Development and Research Institutes, Inc. 940 Main Campus Drive,  
Suite 140 Raleigh, NC 27606, USA*

- Outpatient methadone
- Long-term residential
- Outpatient drug free
- Short term inpatient

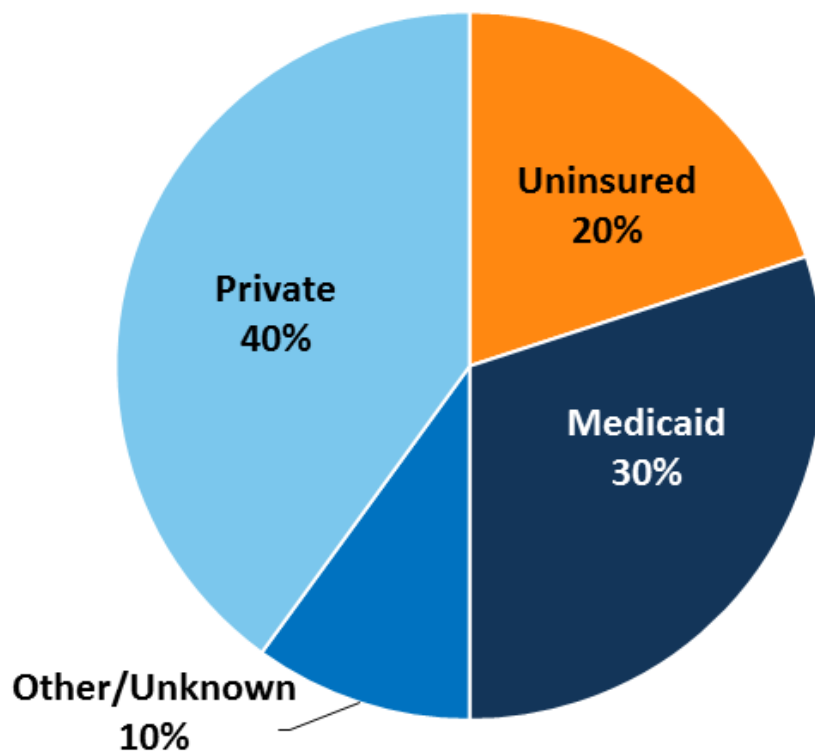


## Residential and Outpatient OUD treatment episodes by Year and Medication Status, U.S. TEDS 2002-2016





## Insurance Status of Adults with Opioid Addiction

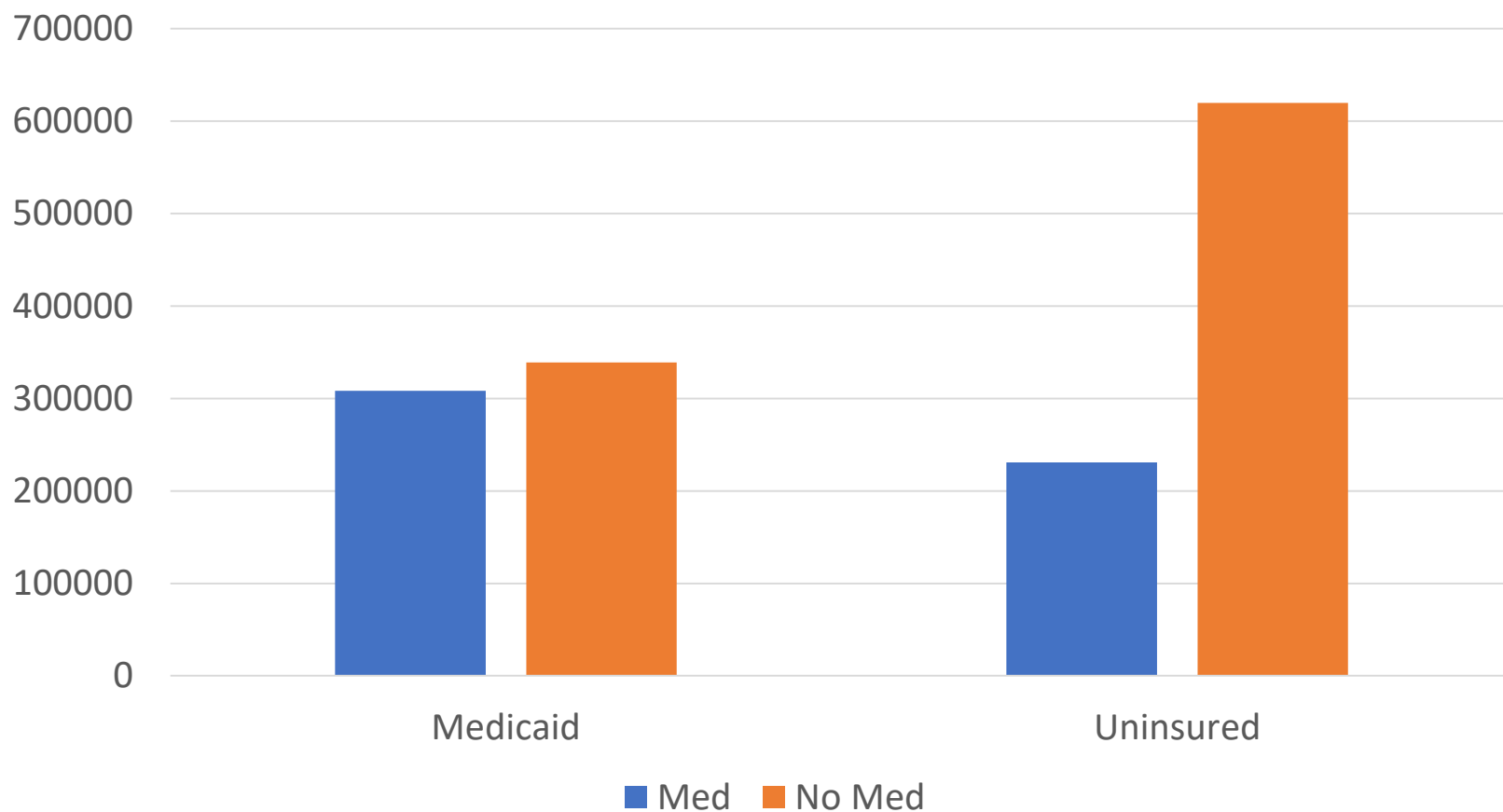


**Total: 2.2 million people**

SOURCE: Kaiser Family Foundation analysis of the 2015 National Survey of Drug Use and Health (NSDUH)



## Residential and Outpatient OUD treatment episodes Insurance and Medication Status, U.S. TEDS 2002-2016





# What is the Standard of Care?

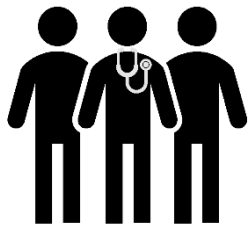
TEDS 2016

New York City CBSA (35620)

52% inpatient/residential episodes of which  
12% involve medication

48% ambulatory setting of which 54%  
involve medication





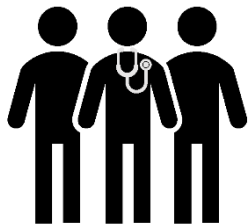
## How the Money Flows.....

### Substance Abuse Prevention and Treatment (SAPT) Block Grant

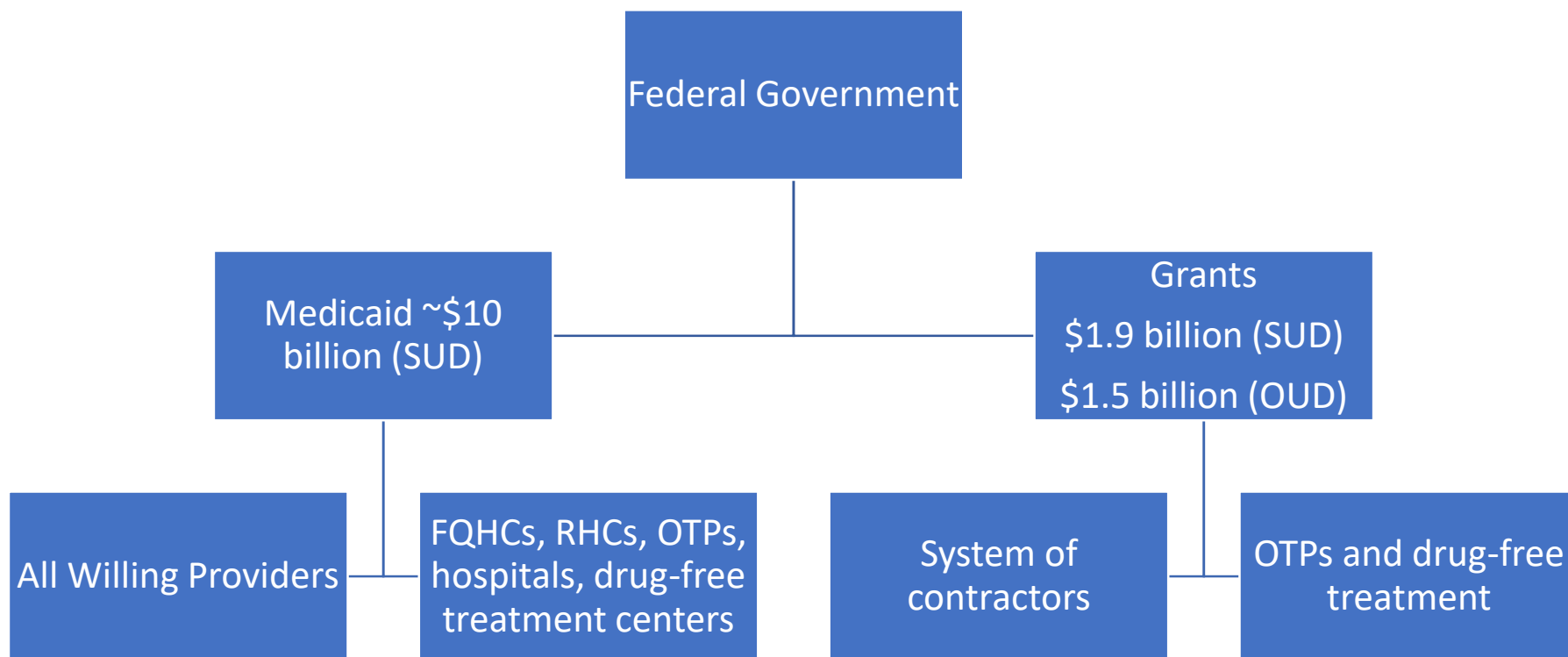
Program	FY 15	FY 16	FY 17	President's FY 18 Request	FY 18 Omnibus	FY 18 Omnibus vs. FY 17
Substance Abuse Prevention and Treatment Block Grant	\$1,819,856,000	\$1,858, 079,000	\$1,858,079,000	\$1,854,697,000	\$1,858,079,000	Level

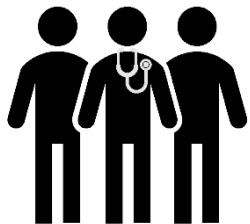
### SAMHSA's Center for Substance Abuse Treatment (CSAT) – Appropriations by Program

Program	FY 15	FY 16	FY 17	President's FY 18 Request	FY 18 Omnibus	FY 18 Omnibus vs. FY 17
<b>CSAT TOTAL</b>	\$361,463,000	\$335,345,000	\$354,427,000	\$341,738,000	\$405,427,000	+\$51,000,000
State Targeted Response (STR) to the Opioid Crisis Grants	--	--	\$500,000,000	\$500,000,000	\$500,000,000	Level
State Opioid Response Grants	--	--	--	--	\$1,000,000,000	+\$1,000,000,000
Addiction Technology Transfer Centers (ATTCs)	\$9,046,000	\$9,046,000	\$9,046,000	\$9,029,000	\$9,046,000	Level
Children and Families	\$29,605,000	\$29,605,000	\$29,605,000	\$29,549,000	\$29,605,000	Level
Criminal Justice Activities	\$78,000,000	\$78,000,000	\$78,000,000	\$77,852,000	\$89,000,000	+\$11,000,000
Minority AIDS	\$65,570,000	\$65,570,000	\$65,570,000	\$65,445,000	\$65,570,000	Level
Opioid Treatment Programs/Regulatory Activities	\$8,724,000	\$8,724,000	\$8,724,000	\$8,708,000	\$8,724,000	Level
Pregnant and Postpartum Women	\$15,931,000	\$15,931,000	\$19,931,000	\$19,931,000	\$29,931,000	+\$10,000,000
Recovery Community Services Program	\$2,434,000	\$2,434,000	\$2,434,000	\$2,429,000	\$2,434,000	Level
Screening, Brief Intervention, Referral, and Treatment (SBIRT)	\$46,889,000	\$46,889,000	\$30,000,000	\$46,804,000	\$30,000,000	Level
Targeted Capacity Expansion (TCE) General	\$23,223,000	\$36,303,000	\$67,192,000	\$36,234,000	\$95,192,000	+\$28,000,000
<i>Medication-Assisted Treatment for Prescription Drug and Opioid Addiction (PDOA)</i>	\$12,000,000	\$25,000,000	\$56,000,000	\$24,952,000	\$84,000,000	+\$28,000,000
Treatment Systems for Homeless	\$41,386,000	\$41,304,000	\$36,386,000	\$41,225,000	\$36,386,000	Level
Building Communities of Recovery	N/A	N/A	\$3,000,000	\$1,000,000	\$5,000,000	+\$2,000,000

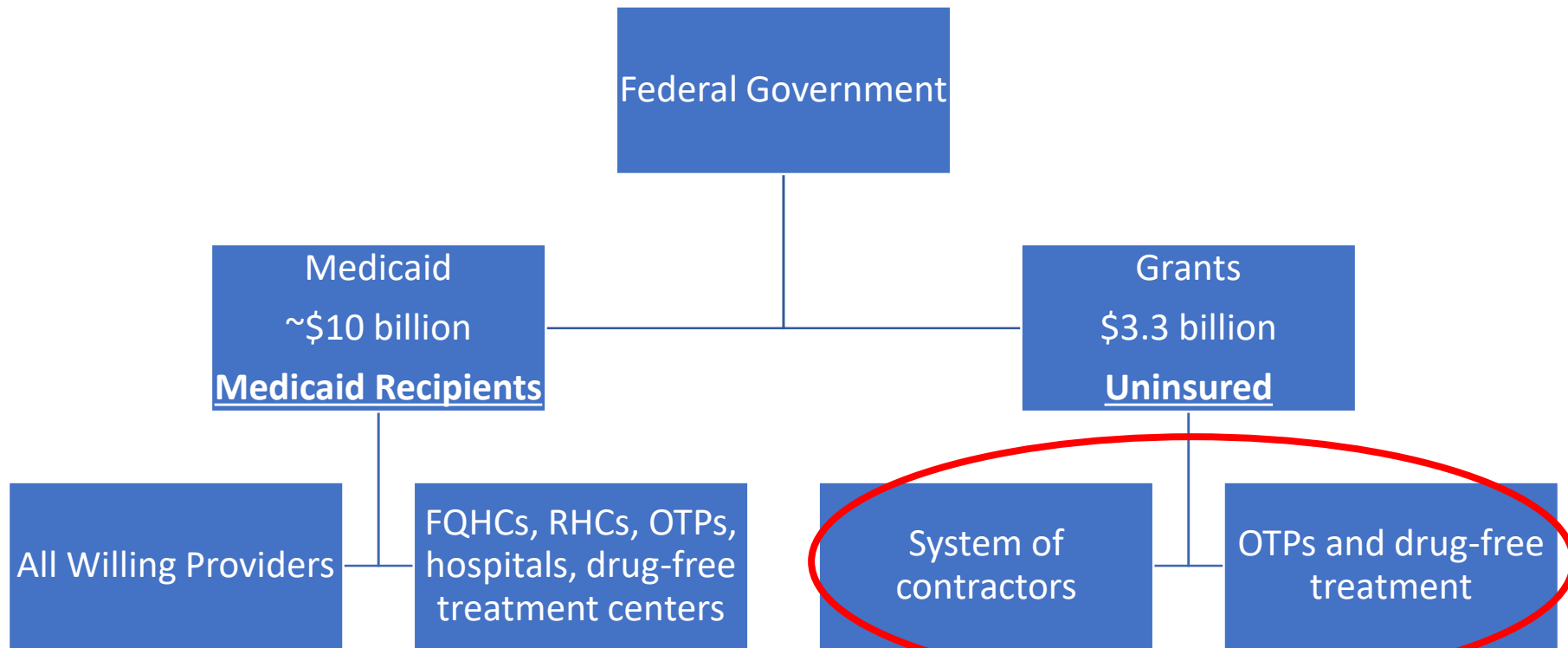


## How the Money Flows.....





## How the Money Flows.....



What is your state doing to  
expand this system?



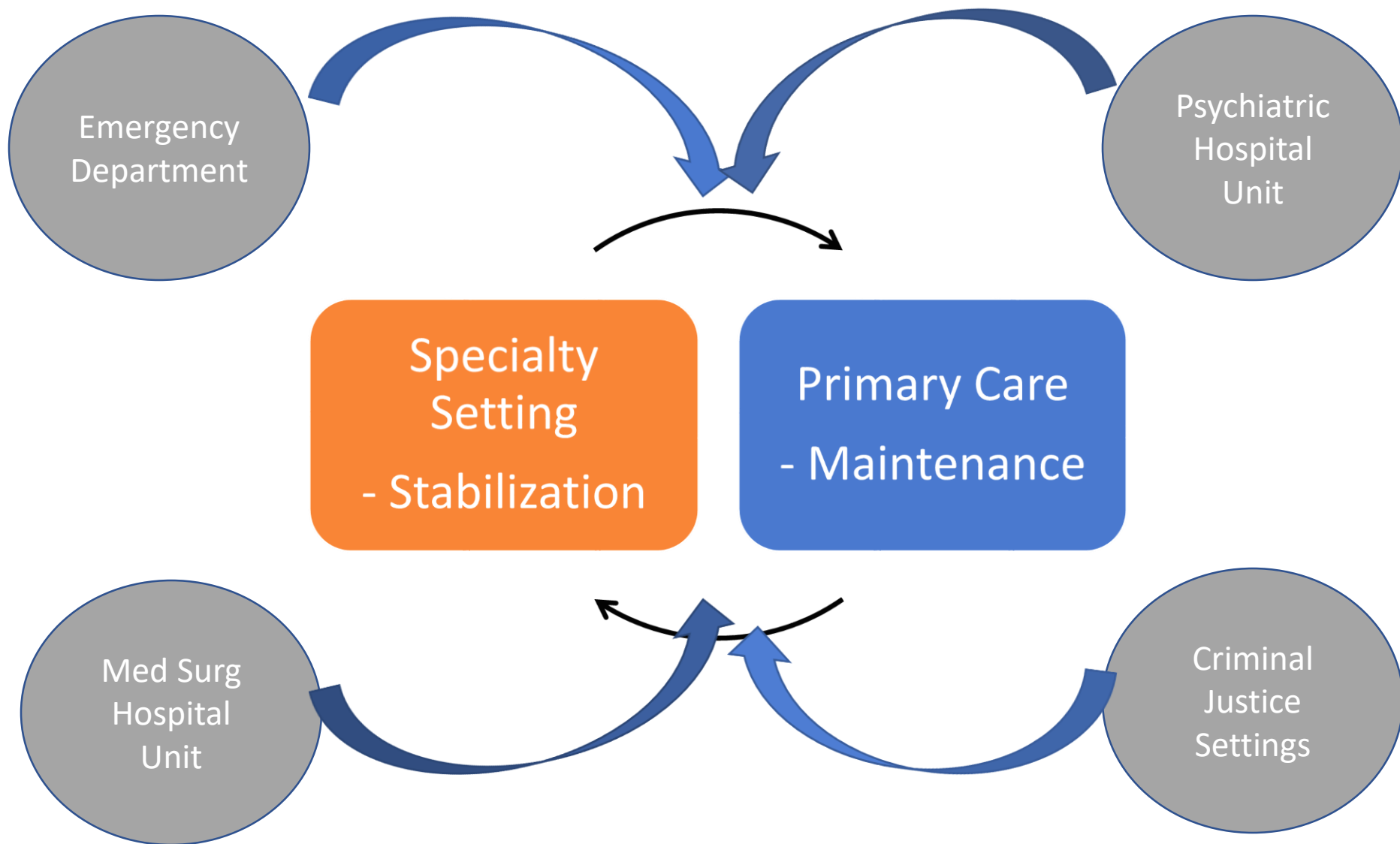
## Specialty Treatment System – primary option for the uninsured

### Specialty Settings

- OTPs
- Step-down Psychosocial



# Integrated Treatment



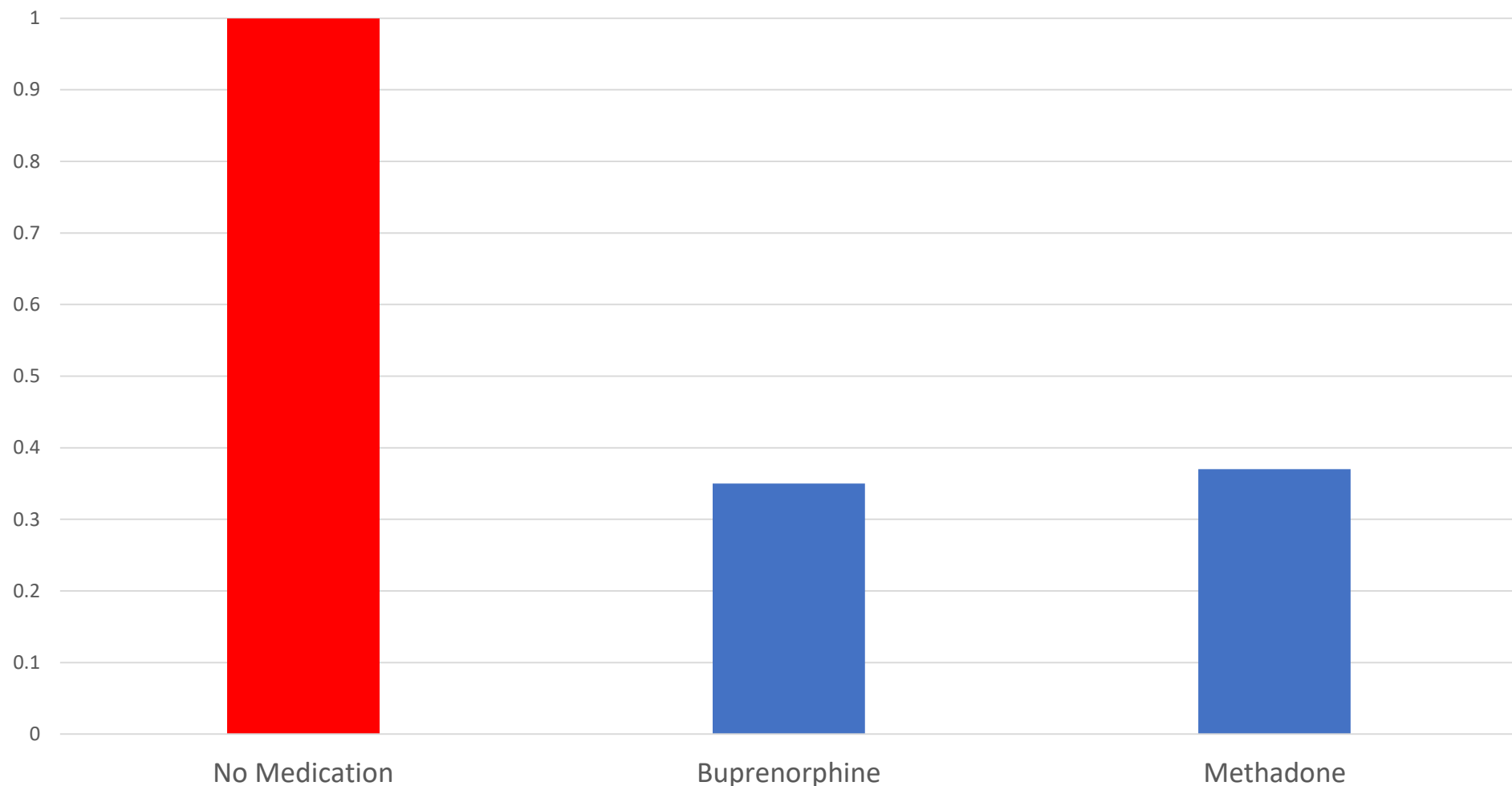


# Integrated Treatment

Emergency  
Department



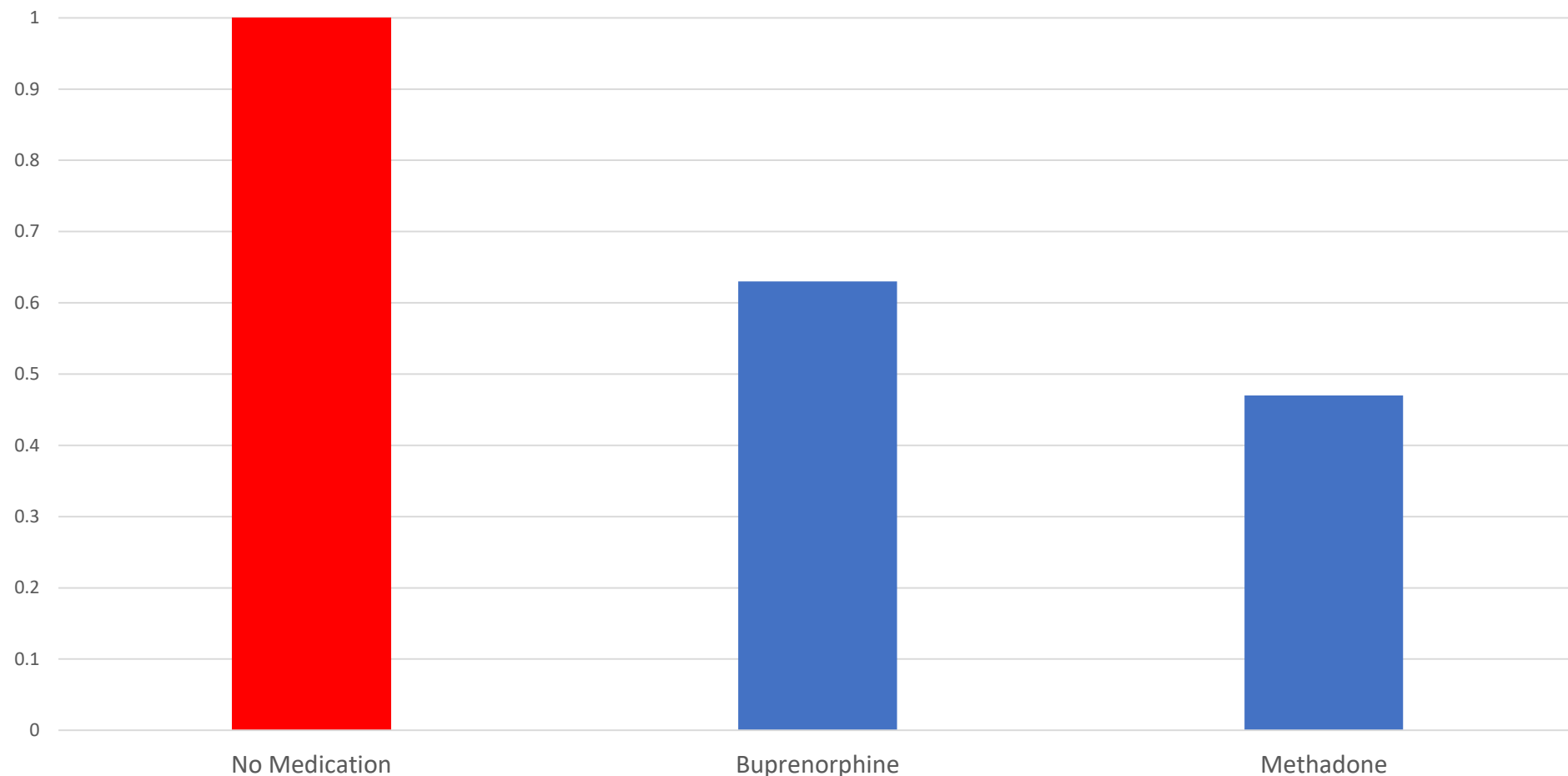
## Medication following a non-fatal overdose: Mortality risk in treatment



Larochelle, Marc R., et al. "Medication for Opioid Use Disorder After Nonfatal Opioid Overdose and Association With Mortality: A Cohort Study." *Annals of internal medicine* (2018).



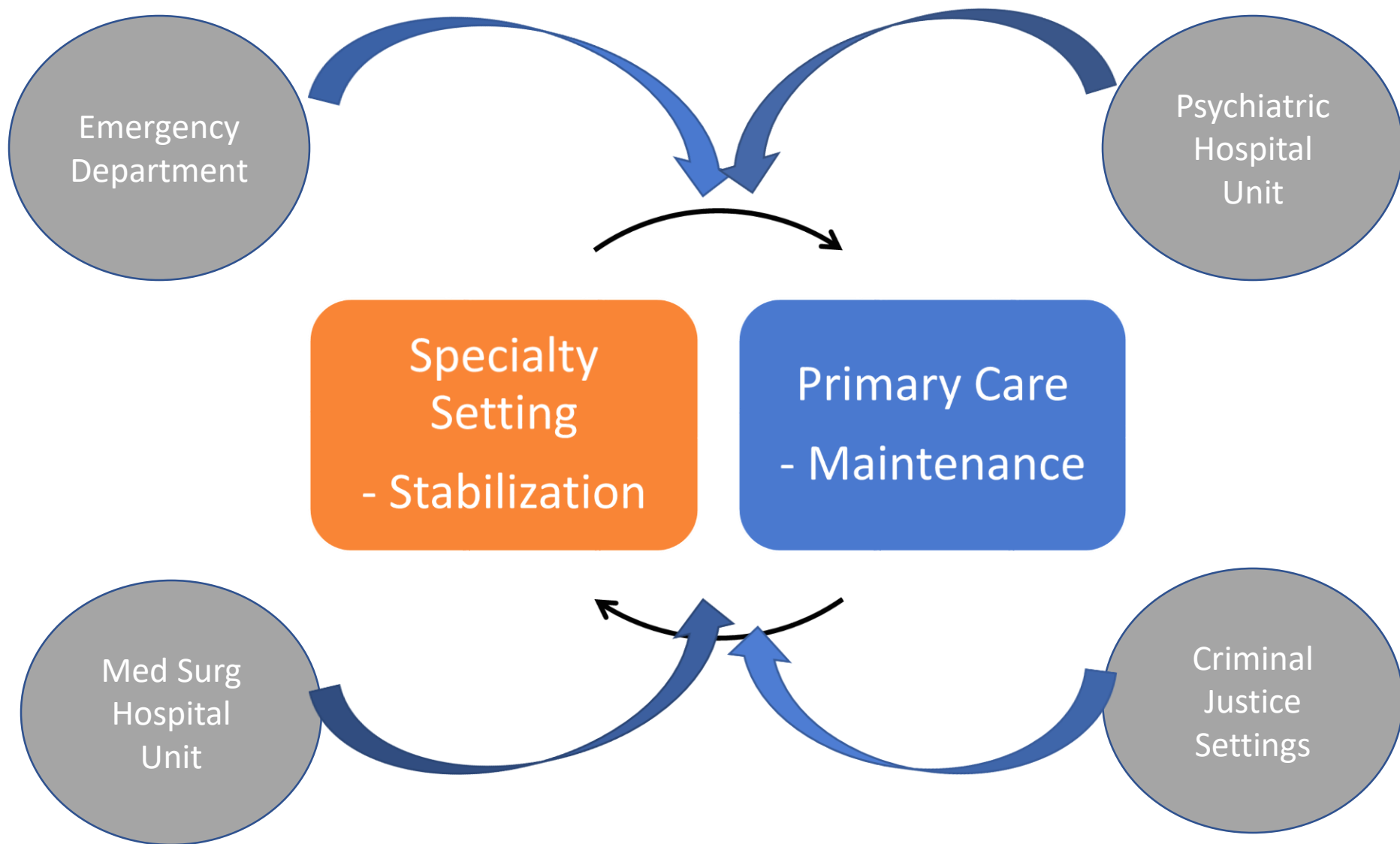
## Medication following a non-fatal overdose: Mortality risk a month after discontinuation







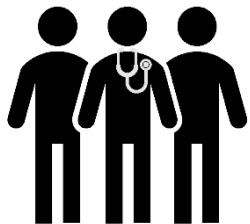
# Integrated Treatment





# Integrated Treatment

Criminal  
Justice  
Settings



**Table 2. Characteristics of Individuals Incarcerated in Rhode Island  
From January 1 to June 30, 2016, and From January 1 to June 30, 2017**

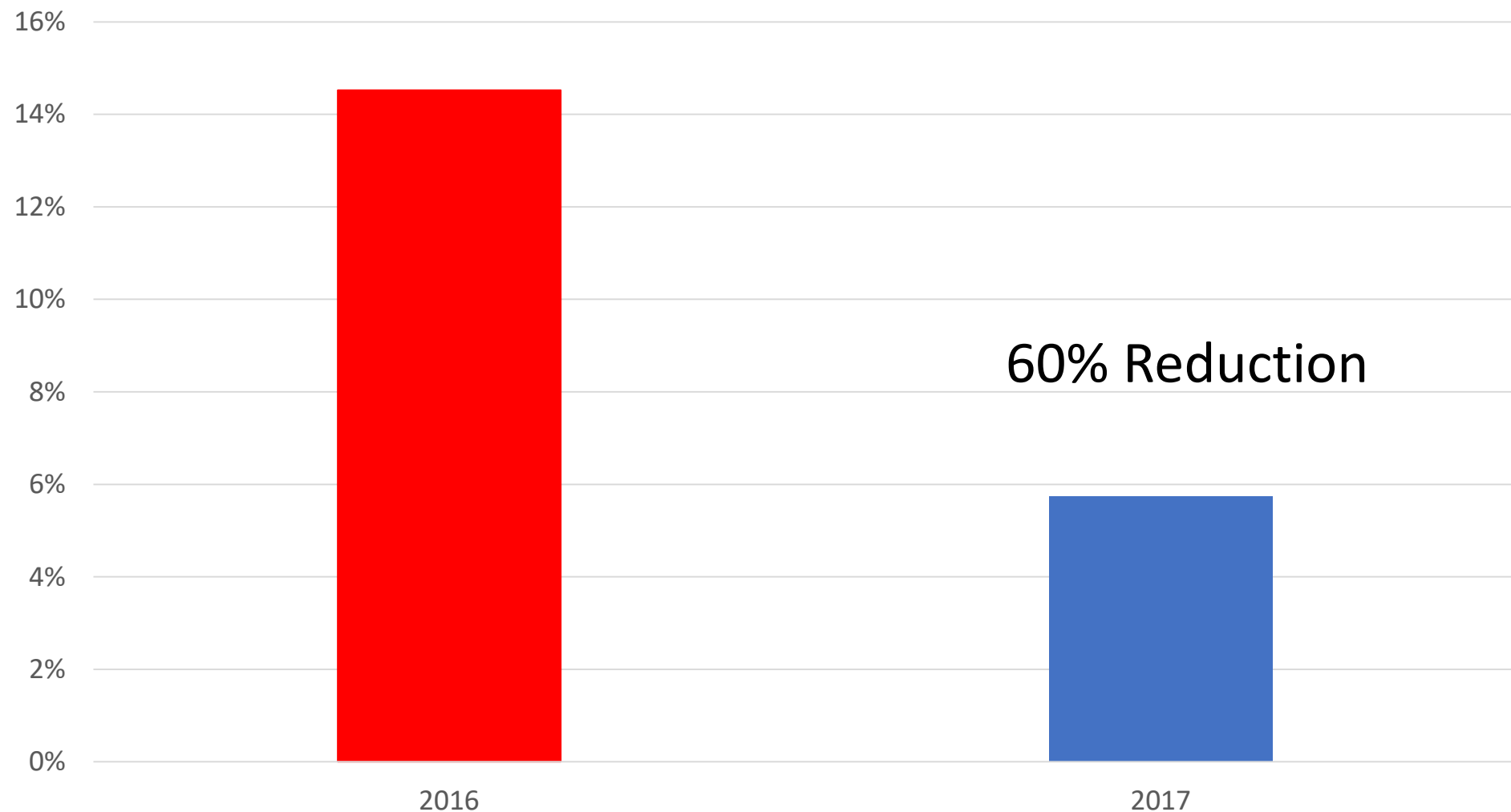
Characteristic	First 6 mo of 2016	First 6 mo of 2017
Admission for incarceration, No.	4822	4512
Release from incarceration, No.	4005	3426
No. of inmates receiving MAT monthly, mean (SD)	80 (18) <sup>a</sup>	303 (39)
No. of inmates receiving a specific MAT drug monthly, mean (SD)		
Buprenorphine	4 (3)	119 (15)
Methadone	74 (16)	180 (25)
Naltrexone	2 (1)	4 (1)
Naloxone kits dispensed at release from incarceration, No.	72	35

Abbreviations: MAT, medications for addiction treatment; RIDOC, Rhode Island Department of Corrections.

<sup>a</sup> Some medications for treatment of addiction were in use at RIDOC in specialized circumstances. Treatment with an opioid agonist is standard of care for pregnant women with opioid use disorder. Pregnant women with opioid use disorder incarcerated at RIDOC are typically treated with methadone and less frequently with buprenorphine. A pilot study providing naltrexone by injection had been ongoing since December 2015 prior to the start of the MAT program at RIDOC.



# Proportion of overdoses among recently incarcerated

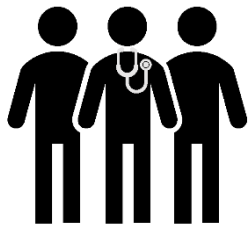


Green, Traci C., et al. "Postincarceration fatal overdoses after implementing medications for addiction treatment in a statewide correctional system." *JAMA psychiatry* 75.4 (2018): 405-407.



# Rhode Island

Number Needed to Treat  
to save a life



# Rhode Island

11



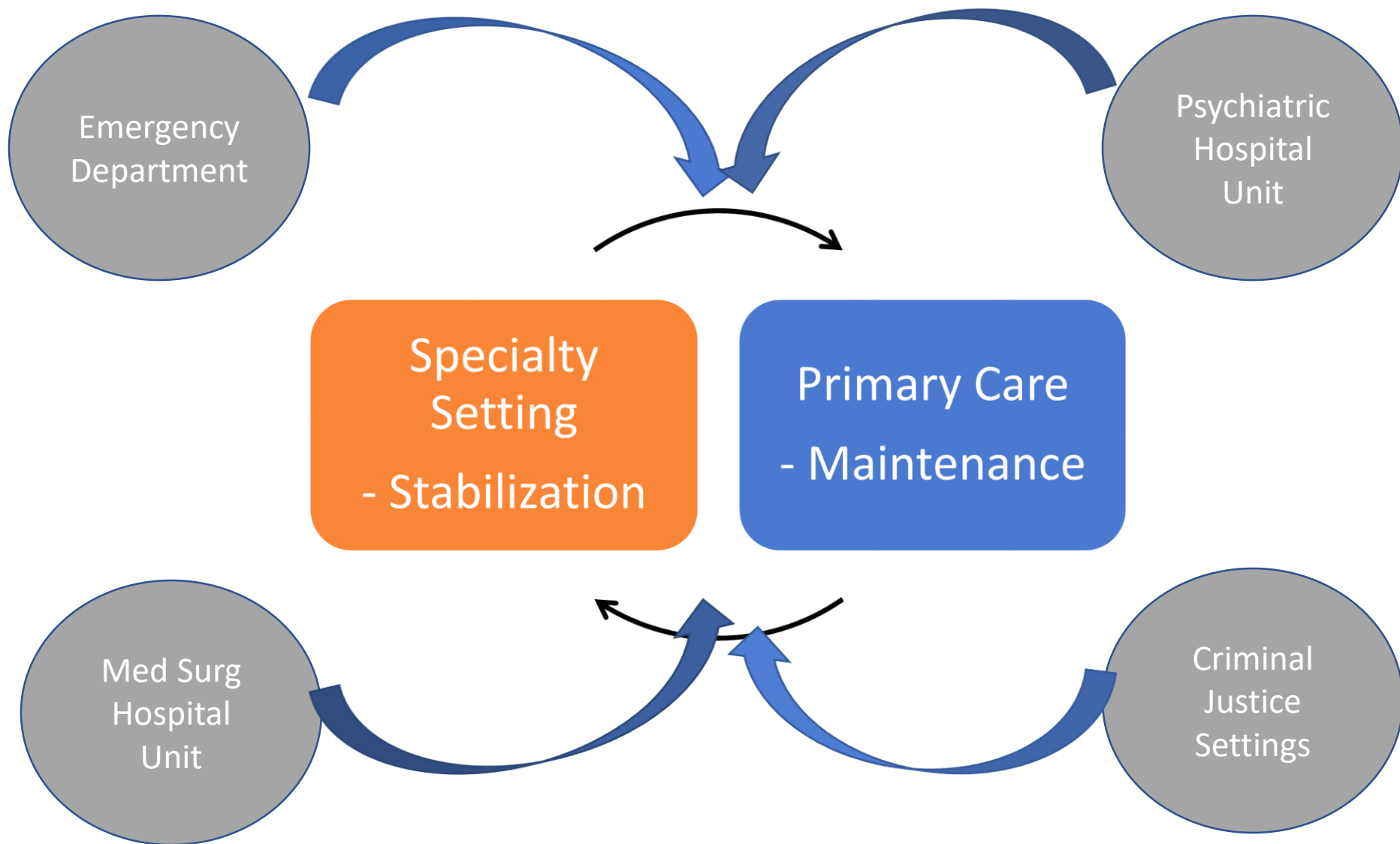
# Rhode Island

12.3%

reduction in overdoses statewide



# Integrated Treatment







Med Surg  
Hospital  
Unit



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# SHOUT

SUPPORT FOR HOSPITAL  
OPIOID USE TREATMENT

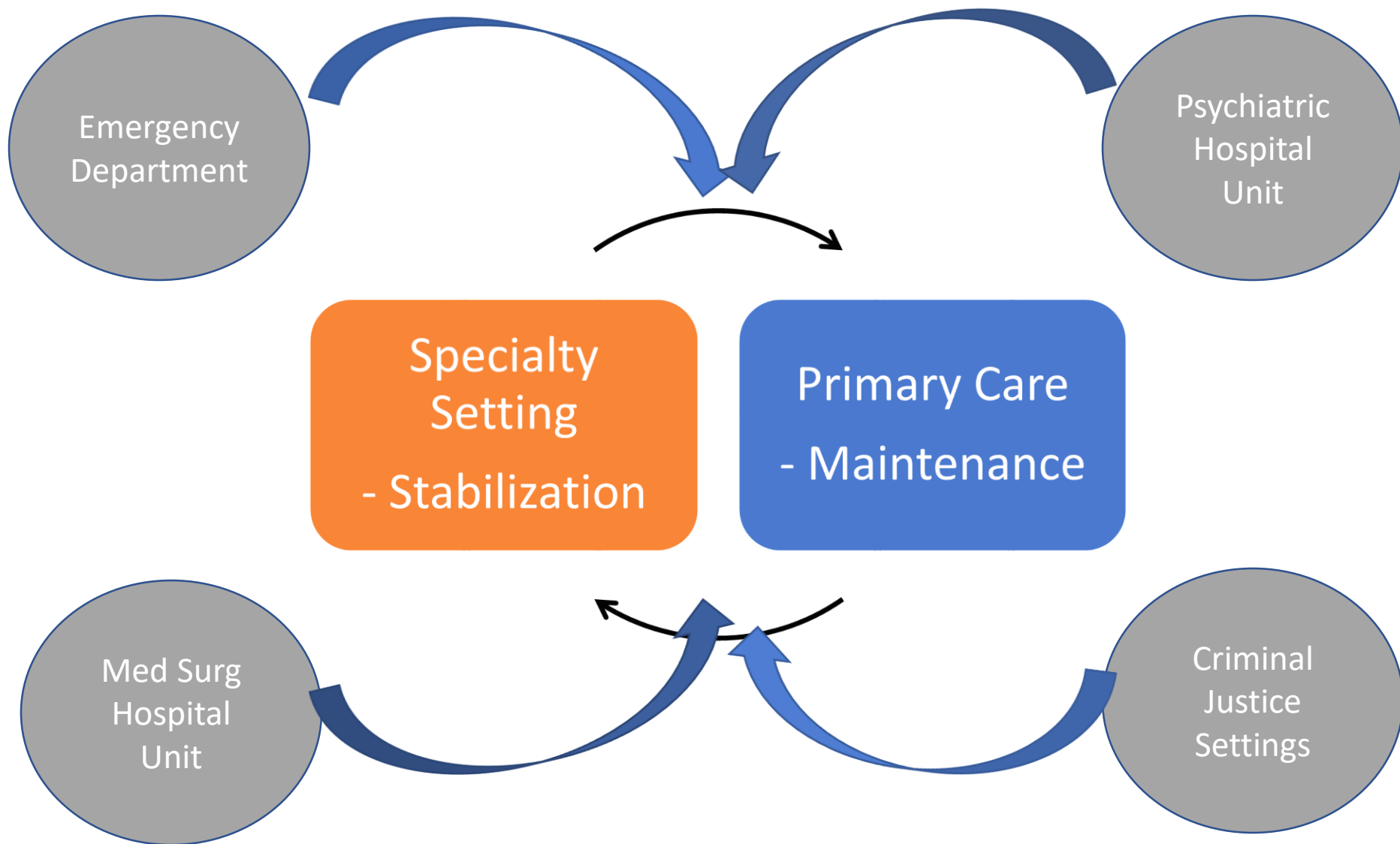
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[GUIDELINES](#) [TOOLKIT](#) [WEBINARS](#) [CONTACT](#)

**Providing clinical leaders with the tools necessary to start and maintain  
patients on effective treatment for opioid use disorder**

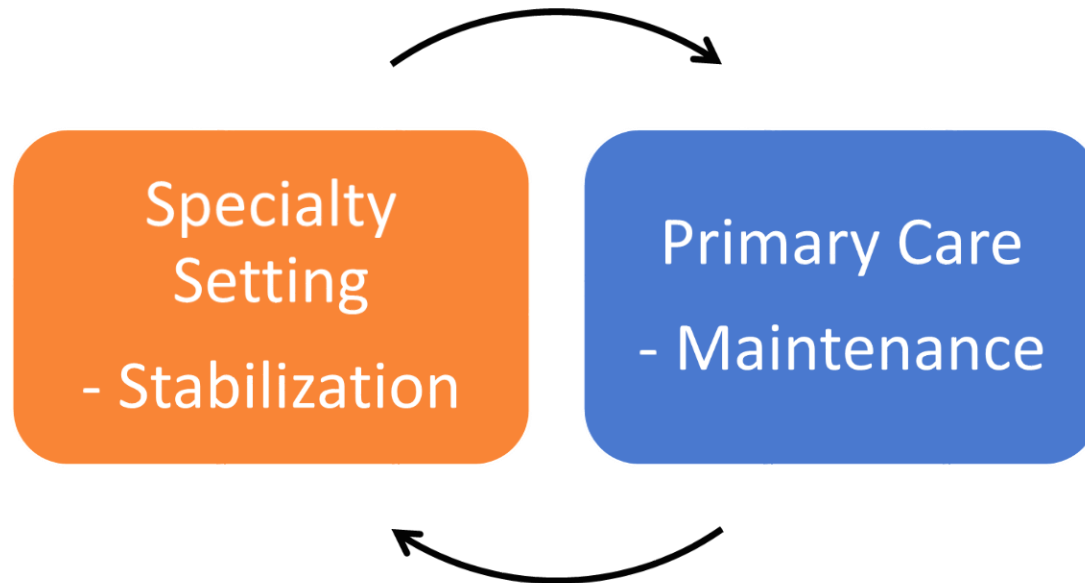


# Integrated Treatment





# Integrated Treatment





Missouri Medicaid 2008-2015

## **Buprenorphine Episodes: MEDIAN RETENTION**

**Specialty  
Treatment  
Center  
(n=932)**

**57 days**

**Office  
(n=1301)**

**160 days**

**Outpatient  
Hospital  
(n=909)**

**80 days**

**Medication  
only  
(n=1689)**

**42 days**



## Missouri Medicaid 2008-2015

### Buprenorphine Episodes:

### MEAN HOURS OF PSYCHOSOCIAL TREATMENT / WEEK

**Specialty  
Treatment  
Center  
(n=932)**

**6.1 hours**

**Office  
(n=1301)**

**< 0.1 hours**

**Outpatient  
Hospital  
(n=909)**

**0.1 hours**

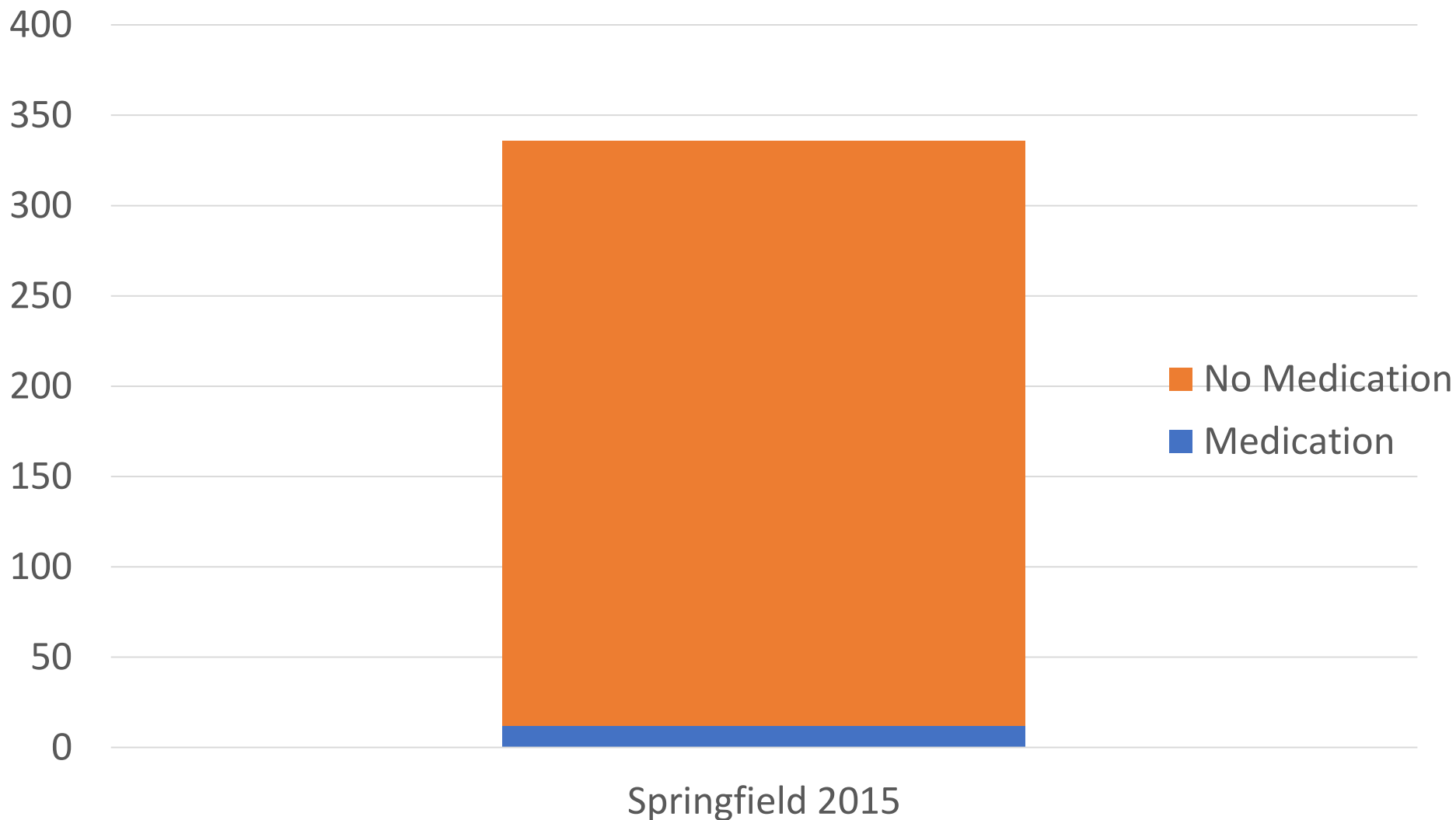
**Medication  
only  
(n=1689)**

**<0.1 hours**

Table 5. Hazards for emergency department visits and hospitalizations by treatment modality and setting		
	ED Visits (n=12,328 <sup>a</sup> )	Hospitalization (n=12,328 <sup>a</sup> )
	Hazard Ratio (95% CI)	Hazard Ratio (95% CI)
Treatment Type <sup>b</sup> (vs. B-PSY)		
B-OPH	0.74 (0.62-0.88) <sup>c</sup>	0.58 (0.44-0.76) <sup>c</sup>
B-OBOT	0.66 (0.56-0.77) <sup>c</sup>	0.58 (0.46-0.73) <sup>c</sup>
B-PHA	0.73 (0.60-0.89) <sup>c</sup>	0.67 (0.51-0.89) <sup>c</sup>
PSY	1.60 (1.38-1.86) <sup>c</sup>	0.95 (0.77-1.18)



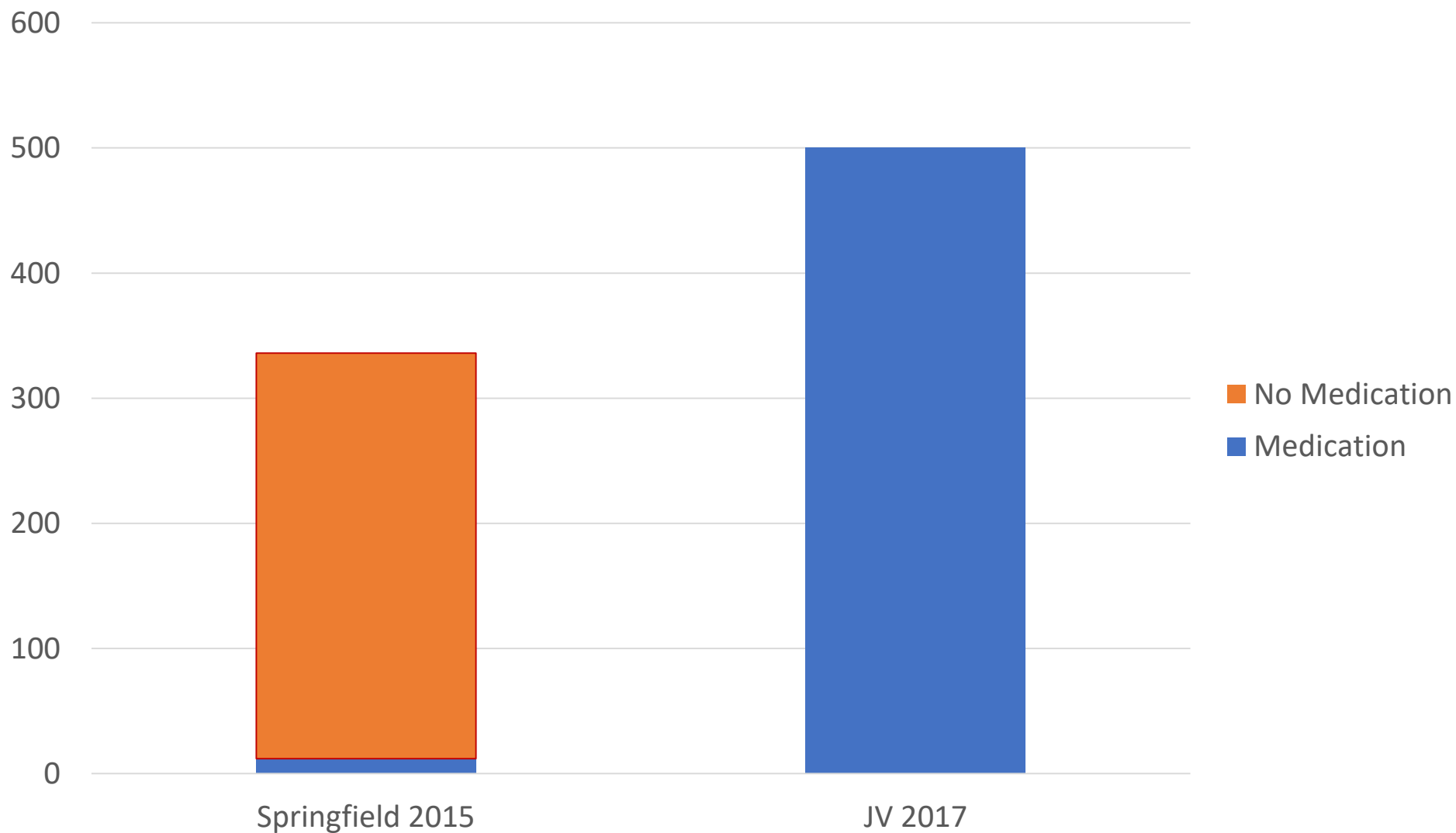
## Springfield OUD Episodes 2015







## JV OUD treatment expansion





## Advantages of Chronic Care Ready Medical Settings

- Core competency in Medical Management of Chronic Illnesses
- Rapid Expansion of Provider Capacity
- Longer retention due to low threshold model of treatment and trust in the medical model
- Access to other preventative and primary care medical services
- Business model without incentives or even capacity for over-treating with psychosocial services
- Lower Cost Treatment
- Sustainability



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## **Buprenorphine Maintenance Treatment Retention Improves Nationally Recommended Preventive Primary Care Screenings when Integrated into Urban Federally Qualified Health Centers**

Marwan S. Haddad, Alexei Zeleney, and Frederick L. Altice

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# Medication-Assisted Treatment Models of Care for Opioid Use Disorder in Primary Care Settings





**NURSE CARE MANAGER  
MODEL OF OFFICE BASED  
ADDICTION TREATMENT:  
CLINICAL GUIDELINES**

**A COLLABORATIVE  
CARE APPROACH**

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Updated: March 9, 2018



# What is the Standard of Care for OUD treatment?

TEDS 2016

New York City CBSA (35620)

68,143 episodes of primary OUD treatment

52% inpatient/residential episodes of which  
12% involve medication

48% ambulatory setting of which 54%  
involve medication

# WE CAN REVERSE THE EPIDEMIC

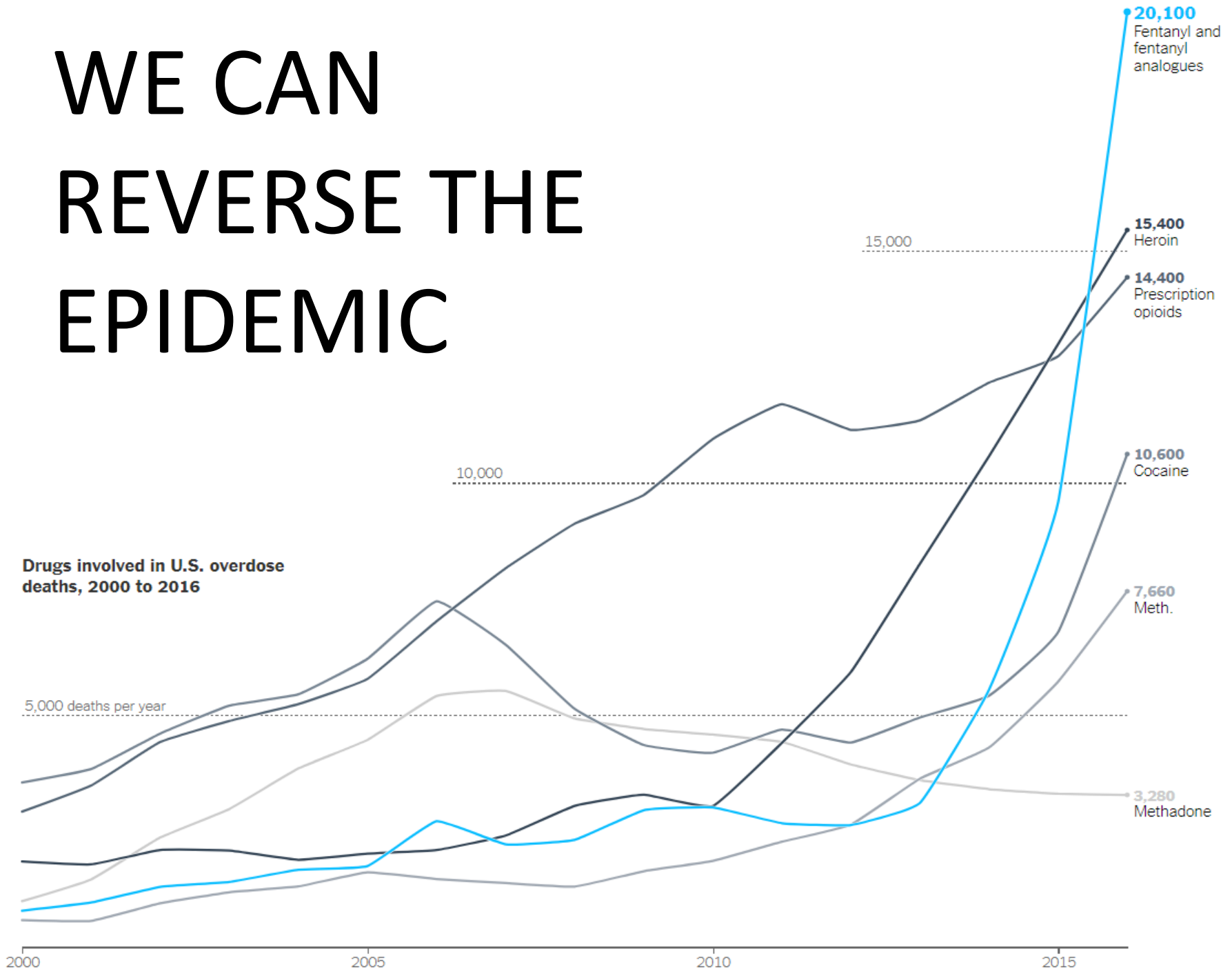
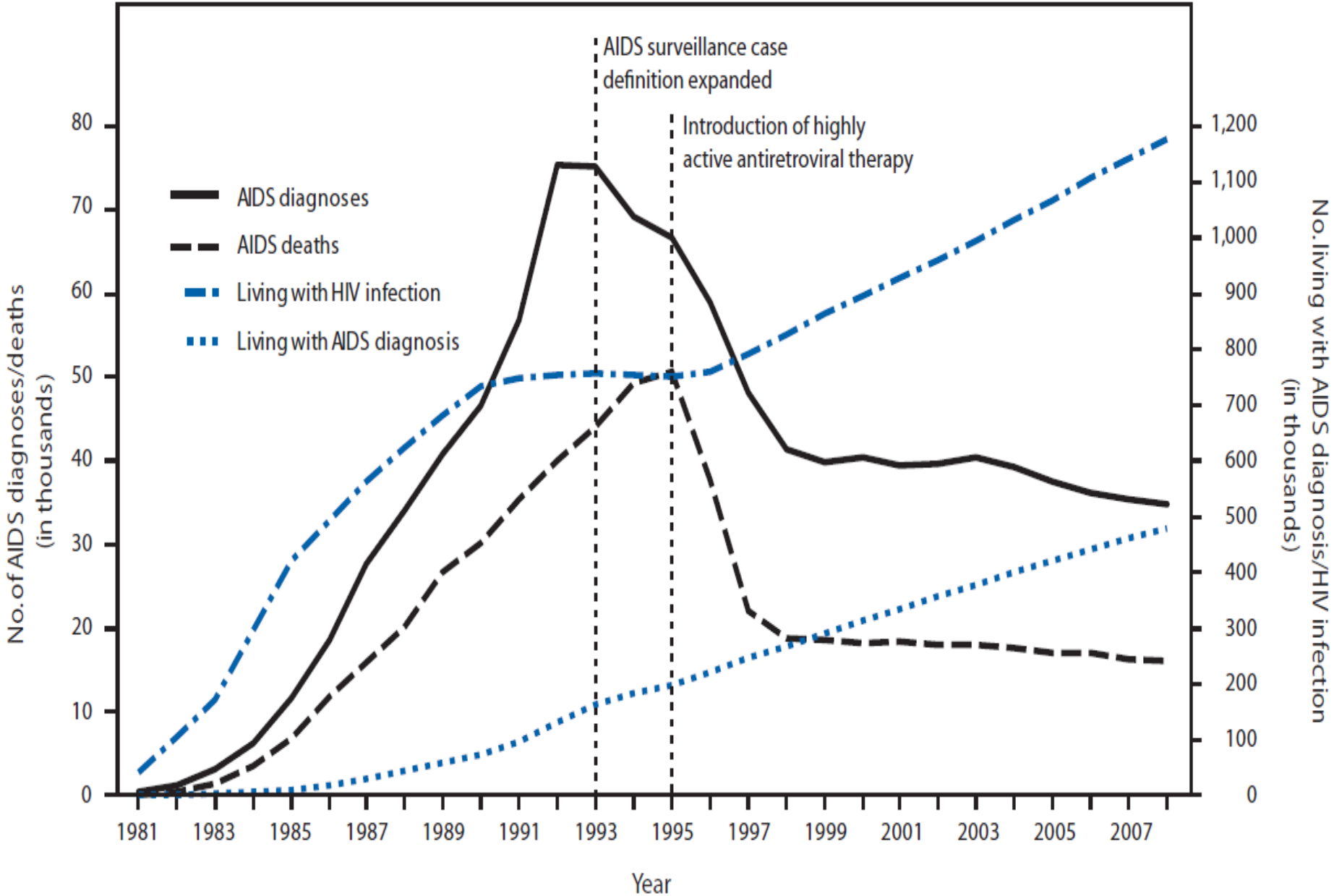


FIGURE. Estimated number of AIDS diagnoses and deaths and estimated number of persons living with AIDS diagnosis\* and living with diagnosed or undiagnosed HIV infection† among persons aged ≥13 years — United States, 1981–2008







## **4 Principles of the Medication First Model:**

1. People with OUD receive pharmacotherapy treatment as quickly as possible, prior to lengthy assessments or treatment planning sessions;
2. Maintenance pharmacotherapy is delivered without arbitrary tapering or time limits;
3. Individualized psychosocial services are continually offered but not required as a condition of pharmacotherapy;
4. Pharmacotherapy is discontinued only if it is worsening the person's condition.

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