From Hospital to Community: The MGH Substance Use Disorder Initiative

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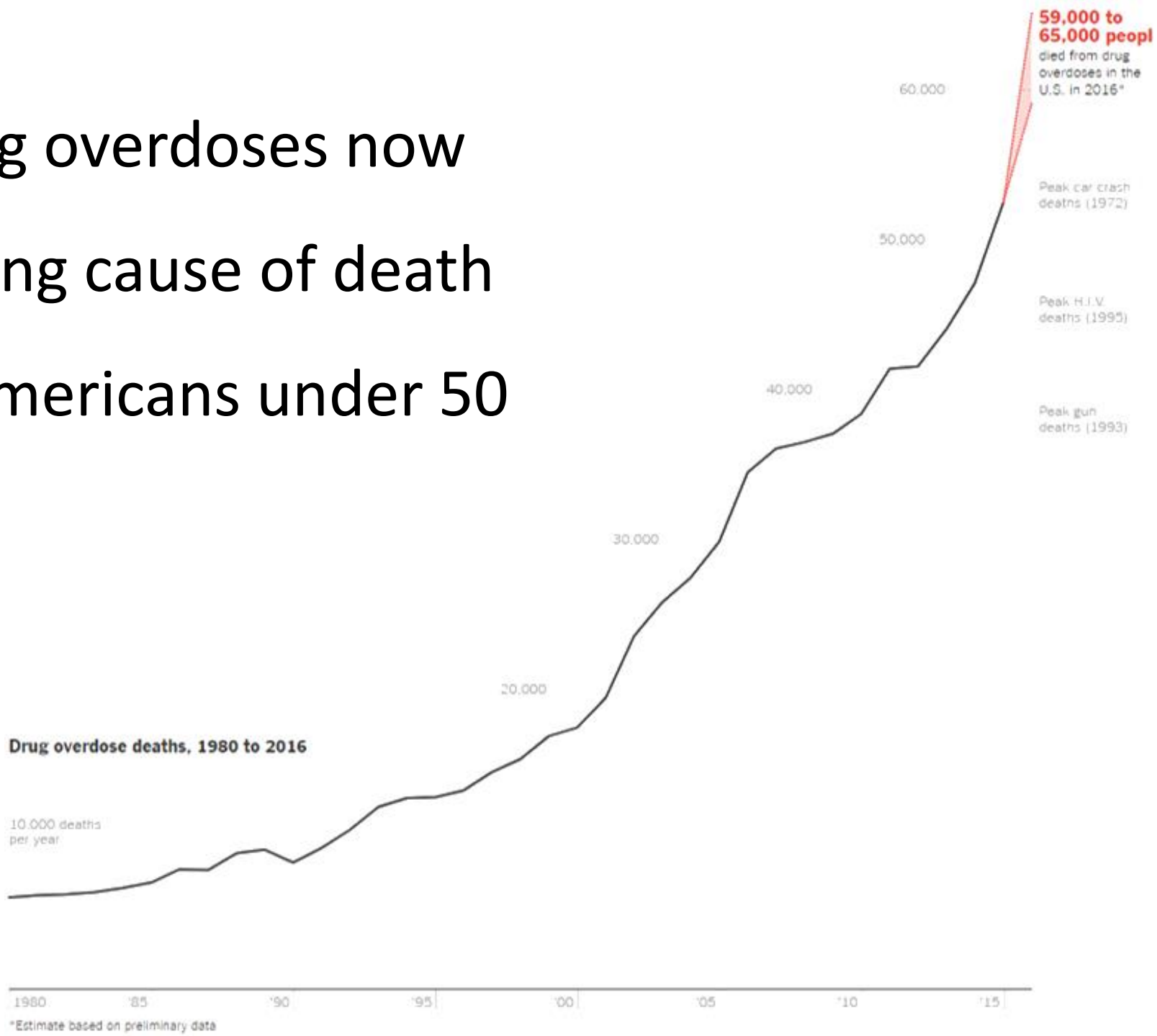
Disclosures

- None

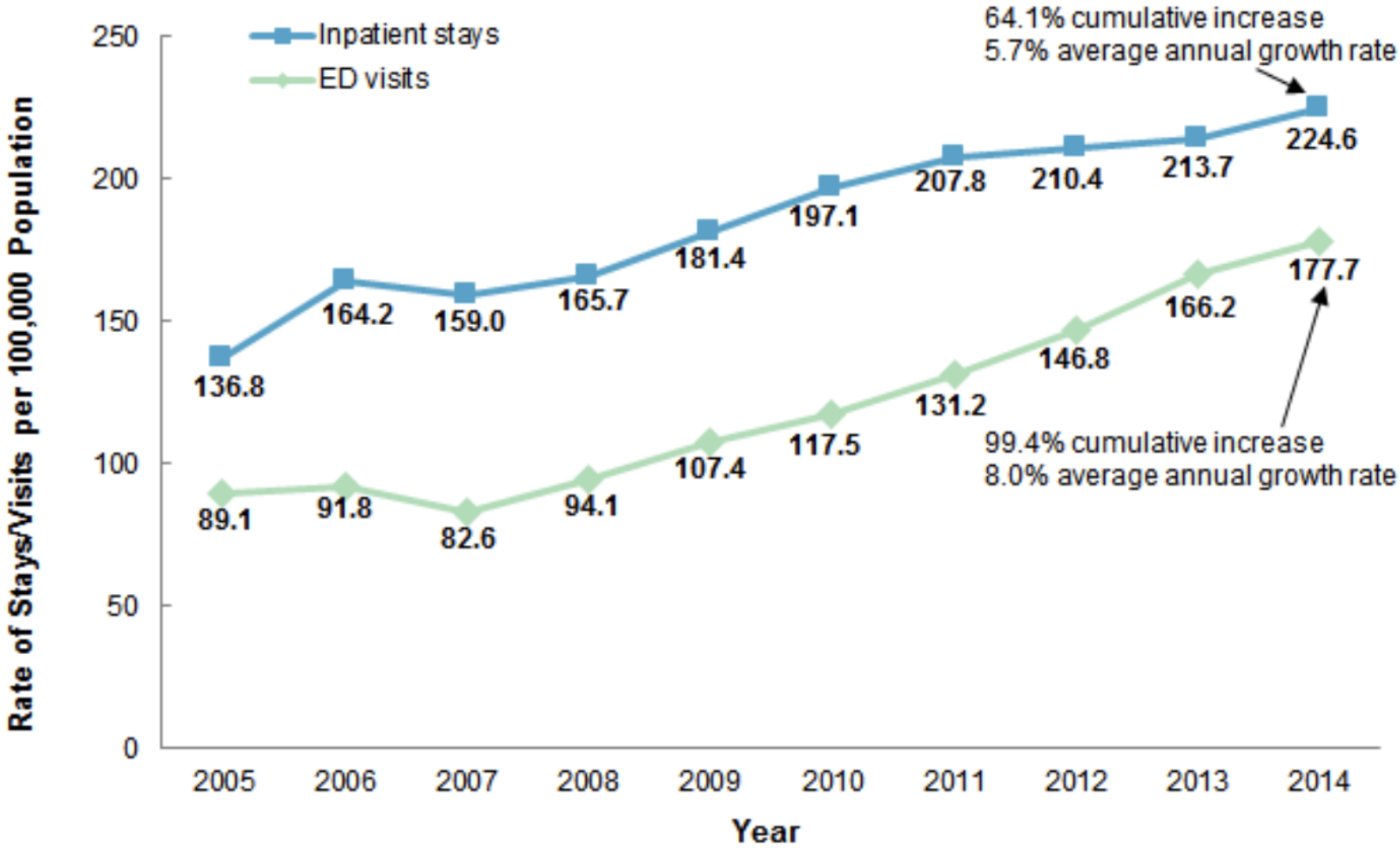
Outline

- Overview of MGH SUD Initiative History
- Details of the Initiative
- Outcomes
- Lessons Learned

Drug overdoses now leading cause of death for Americans under 50



National Opioid-Related Inpatient Hospitalizations and ED Visits



ICU Admissions for Overdose

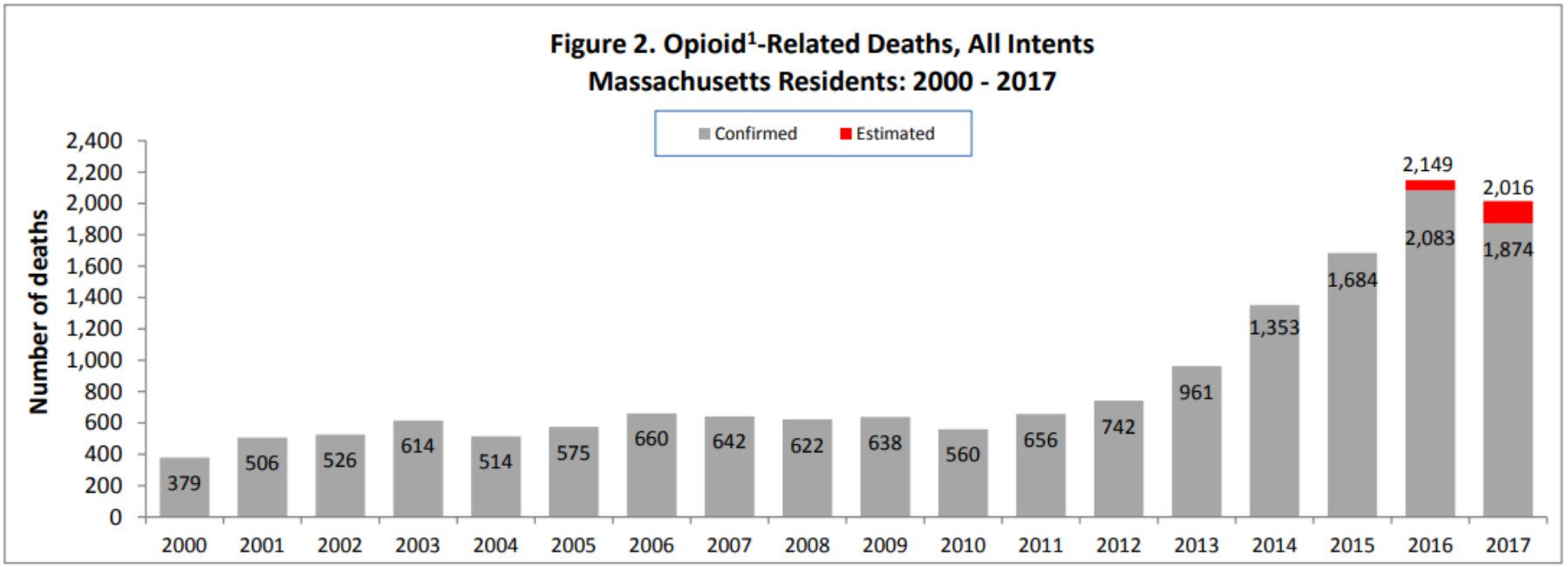
- 34% increase in opioid OD admissions requiring ICU admission from2009-2015

- In-hospital mortality rate 10%

- High mortality after discharge - additional 25% dead at median follow-up of 31 months

Stevens et al. Ann Am Thorac Soc. 2017 Dec;14(12):1803-1809.
Pfister et al. J Crit Care. 2016 Oct;35:29-32.
O'Brien et al. Anaesth Intensive Care. 2009 Sep;37(5):802-6

Overdose Crisis in Massachusetts



What is Effective Treatment?

Medication

Methadone

Buprenorphine

Naltrexone

Psychosocial Interventions

Cognitive behavioral therapy

Motivational enhancement therapy

Contingency management

Recovery Supports

Recovery coaching

Mutual help organizations

Hospitals Have Opportunity to Initiate Treatment

- Initiating methadone in hospital:
  - 82% present for follow-up addiction care

- Buprenorphine vs. detox among inpatients:
  - Bupe: 72.2% enter into treatment after discharge
  - Detox : 11.9% enter treatment after discharge

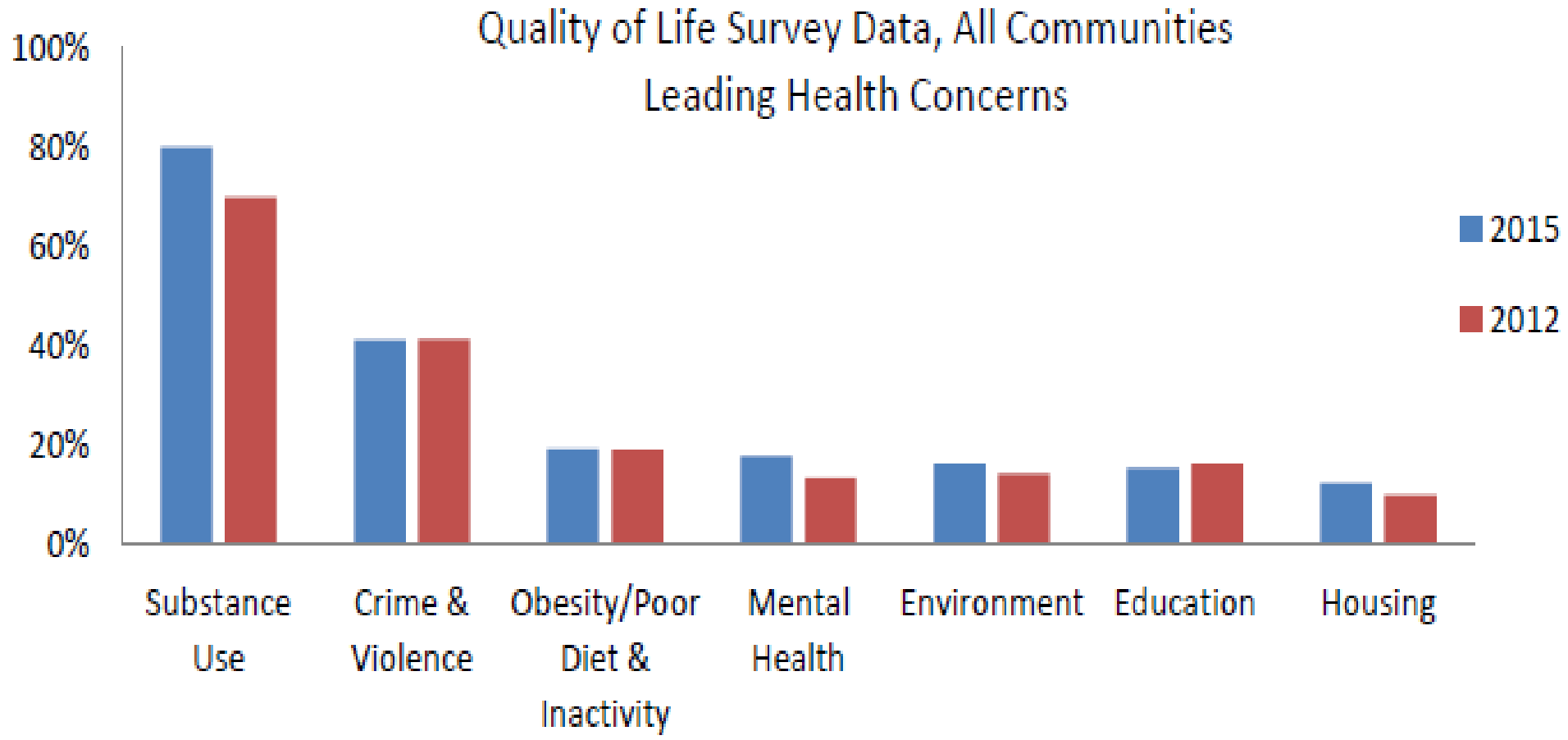
- Buprenorphine vs. referral in ED:
  - Bupe: 78% engaged in treatment at 30 days
  - Referral: 37% engaged in treatment at 30 days

J Gen Intern Med. Aug 2010; 25(8): 803–808; JAMA Intern Med 2014 Aug;174(8):1369-76.; D'Onofrio et al. JAMA 2015 Apr 28;313(16):1636-44

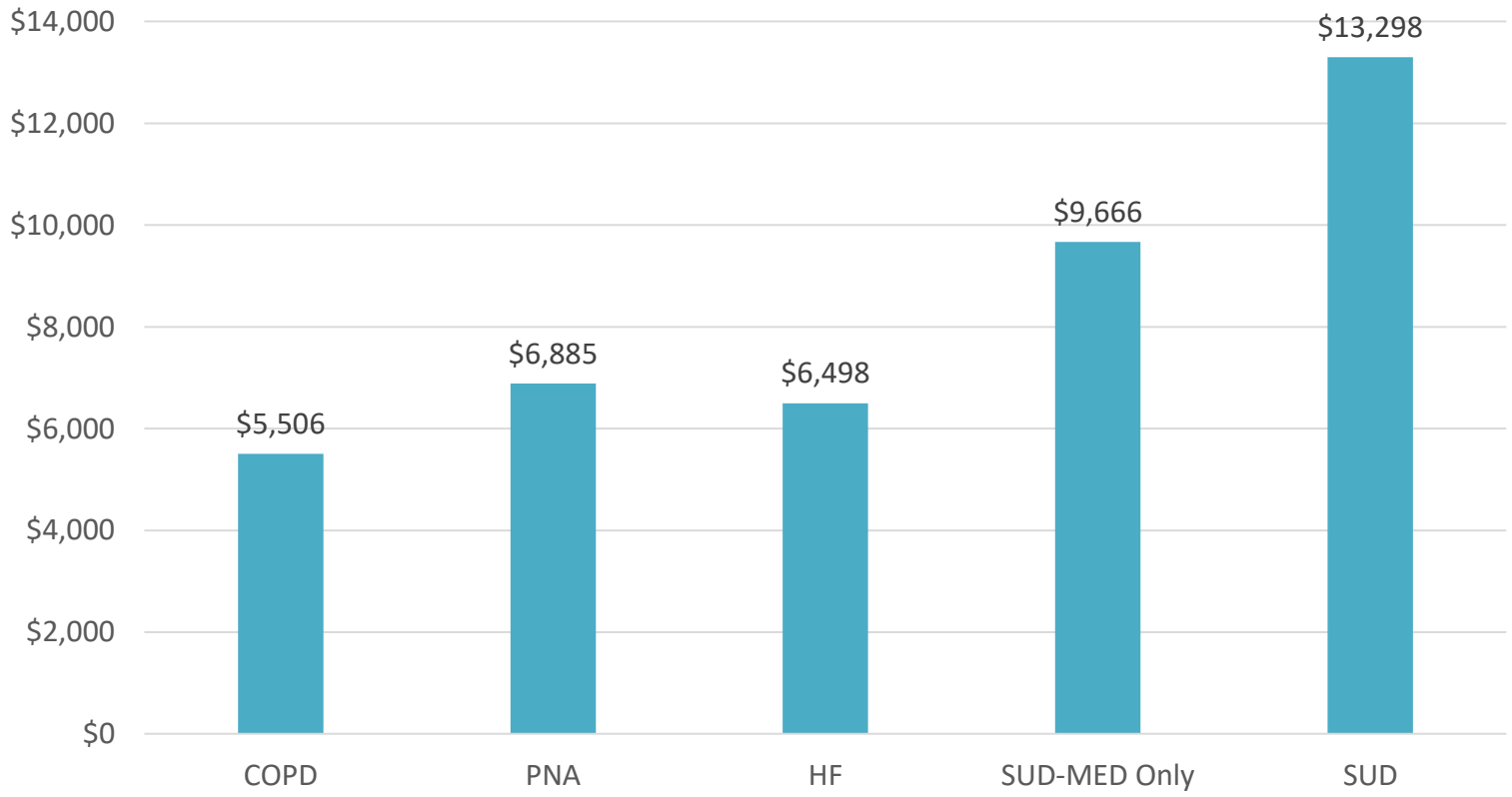
MGH Mission Includes Caring for our Communities

Guided by the needs of our patients and their families, we deliver the very best health care in a safe, compassionate environment, we advance that care through innovative research and education, and *we improve the health and well-being of the diverse communities we serve.*

Substance Use #1 Community Priority



Making a Financial Case



N=2,583 medical and surgical patients (20% homeless); 10/12-10/13

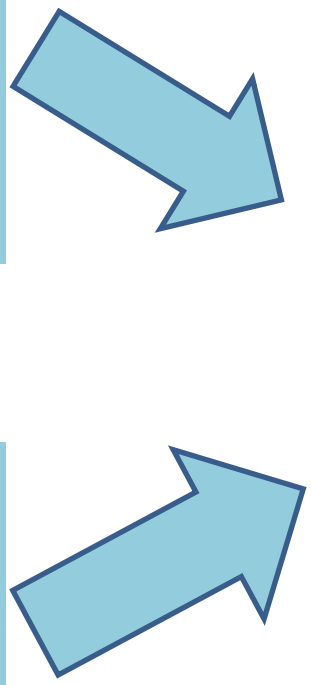
Strategic Planning at MGH

2013 Community Health Survey

- Completed routinely every 3 years
- SUD was identified as top community priority

MGH Strategic Planning Process

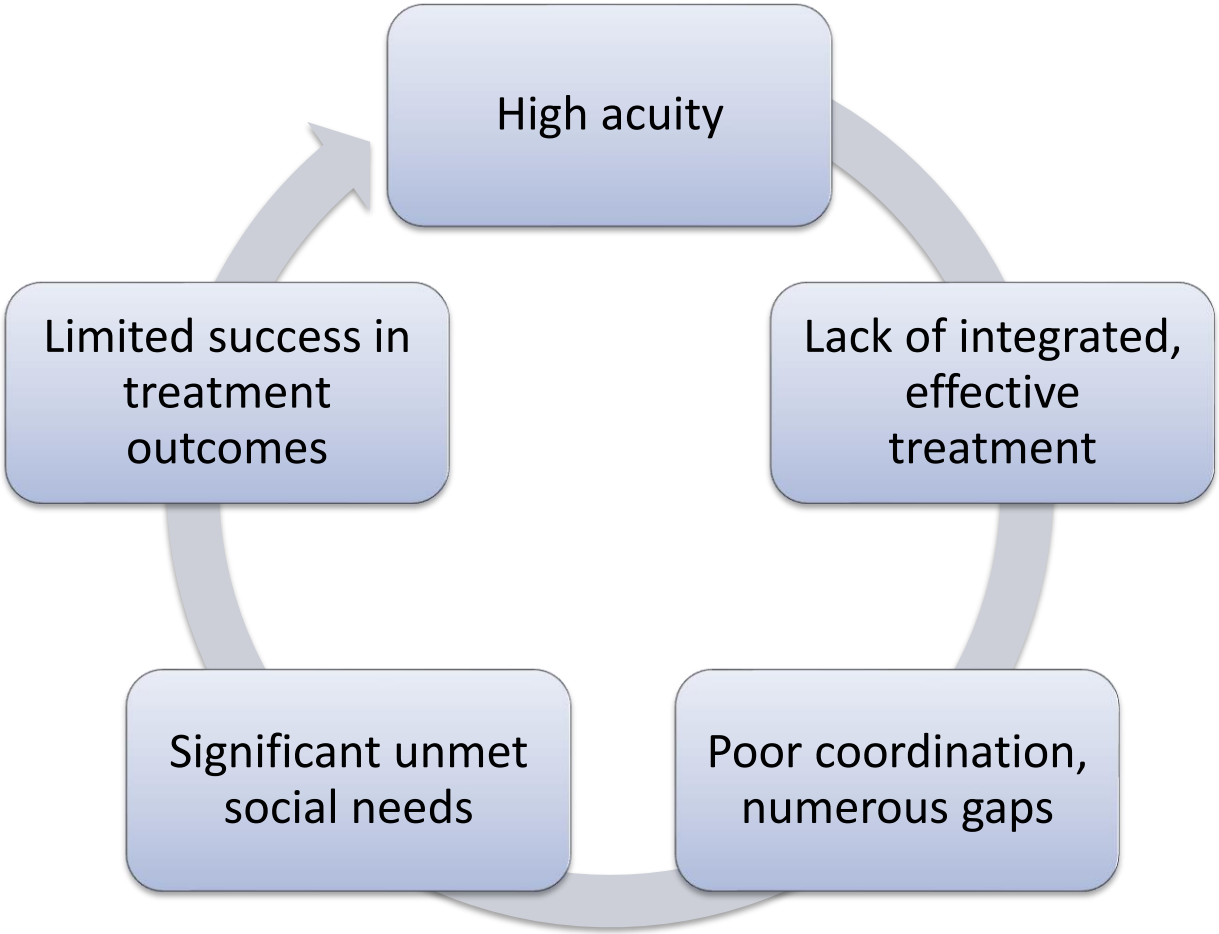
- Community Sub-Committee
- Population Health Sub-Committee



Key Clinical Priority of Strategic Plan

- Improve Quality and Outcomes for patients with SUD
- Reduce ED and Inpatient readmissions
- Increase effective engagement in Outpatient based treatment

Initial State

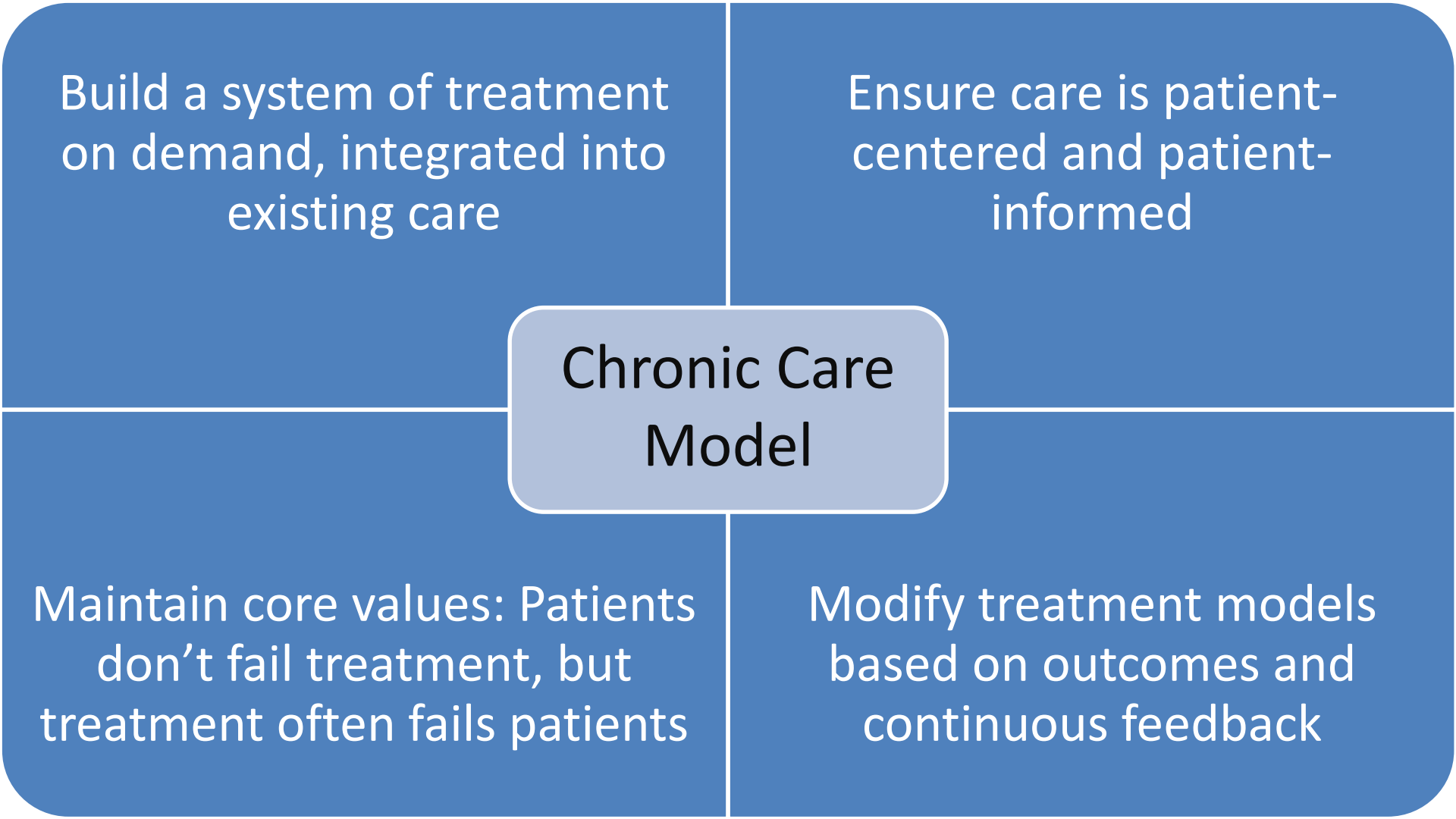


SUDs Initiative Mission

To improve the quality, clinical outcomes and value of addiction treatment for all MGH patients with SUD. To accomplish this mission, patients must have access to **evidence based treatment** that is **readily available** and standardized across the system.

Core Principles:

1. Chronic Care Model
2. Patient Centered Approach
3. Evidence Based Treatment
4. Treatment Available on Demand
5. Quality Standards Across Settings


Build a system of treatment on demand, integrated into existing care
Ensure care is patient-centered and patient-informed
Chronic Care Model
Maintain core values: Patients don’t fail treatment, but treatment often fails patients
Modify treatment models based on outcomes and continuous feedback

New Models of Care for Substance Use Disorder

Inpatient Addiction Consult Team

Recovery Coaches

Outpatient Addiction Champion Teams

The MGH Substance Use Disorder Initiative

Urgent "Bridge" Clinic

ED Buprenorphine #GetWaivered

HOPE Clinic for Pregnant & Parenting Women and Families

Inpatient Addiction Consult Team

Interdisciplinary Team:

Internists, NPs, Psychiatrists, Social Workers, Peers in Recovery
Total FTE

Availability:

Cover 999-inpatient beds, 7 days per week

Treatment Model:

-Assessment and diagnosis of SUD and co-occurring MH issue
-Daily visits from team members to provide evidence based care, including initiation of pharmacotherapy
-Behavioral Health care provided at bedside

Aftercare Planning:

-Long term aftercare planning, work to reduce system barriers
-Linkage to community based Primary Care team
-All planning based on patient desire and interest

Inpatient Addiction Consult Team Part 2

- Patient Care Outcomes:
  - ACT Consults:
    - Over 5,000 consults since initiation in October, 2014
    - ~30% involve opioids
    - 70% male, mean age 47
  - Patients seen by ACT have 25% lower 30-day readmission as compared to patients with SUD not seen by ACT

- Provider Impact
  - Broad based provider education and interaction with ACT
  - Marked increases in comfort and willingness to treat patients with SUD

Integrated Treatment in Primary Care: Two Coordinated Approaches

Addiction Champion Teams

- Multidisciplinary primary care teams
  - PCPs, Behavioral Health providers (when possible), Nursing, Administration, Security as needed
- Integrate with community coalitions
- Purpose:
  - Address and resolve all policy issues, implementation issues, practical logistics related to adding SUD services in Health Center
  - Clinical Rounds to manage the care of patients with SUD, managed by use of clinical registry

Successes:

In CHCs alone, 38 physicians waivered to prescribe buprenorphine treating 546 patients

In every setting, the Champions team continues, has been incorporated as an important ongoing clinical initiative.

Integrated Treatment in Primary Care:

Two Coordinated Approaches

10 Recovery Coaches

- 10 recovery coaches
  - 11,556 contacts with 1,233 patients
- Most embedded in Primary Care practices
  - Two work in Behavioral Health
- Recovery Coach Manager supervises the team
- Highly endorsed by Health Center staff
  - Important element of Addiction Champions Team

Linkage to a recovery coach associated with:

- 25% fewer inpatient admissions
- 44% more outpatient appointments
- Continued abstinence for 90% patients on medication treatment after 12 months of coaching

Bridge Clinic: A Different Approach

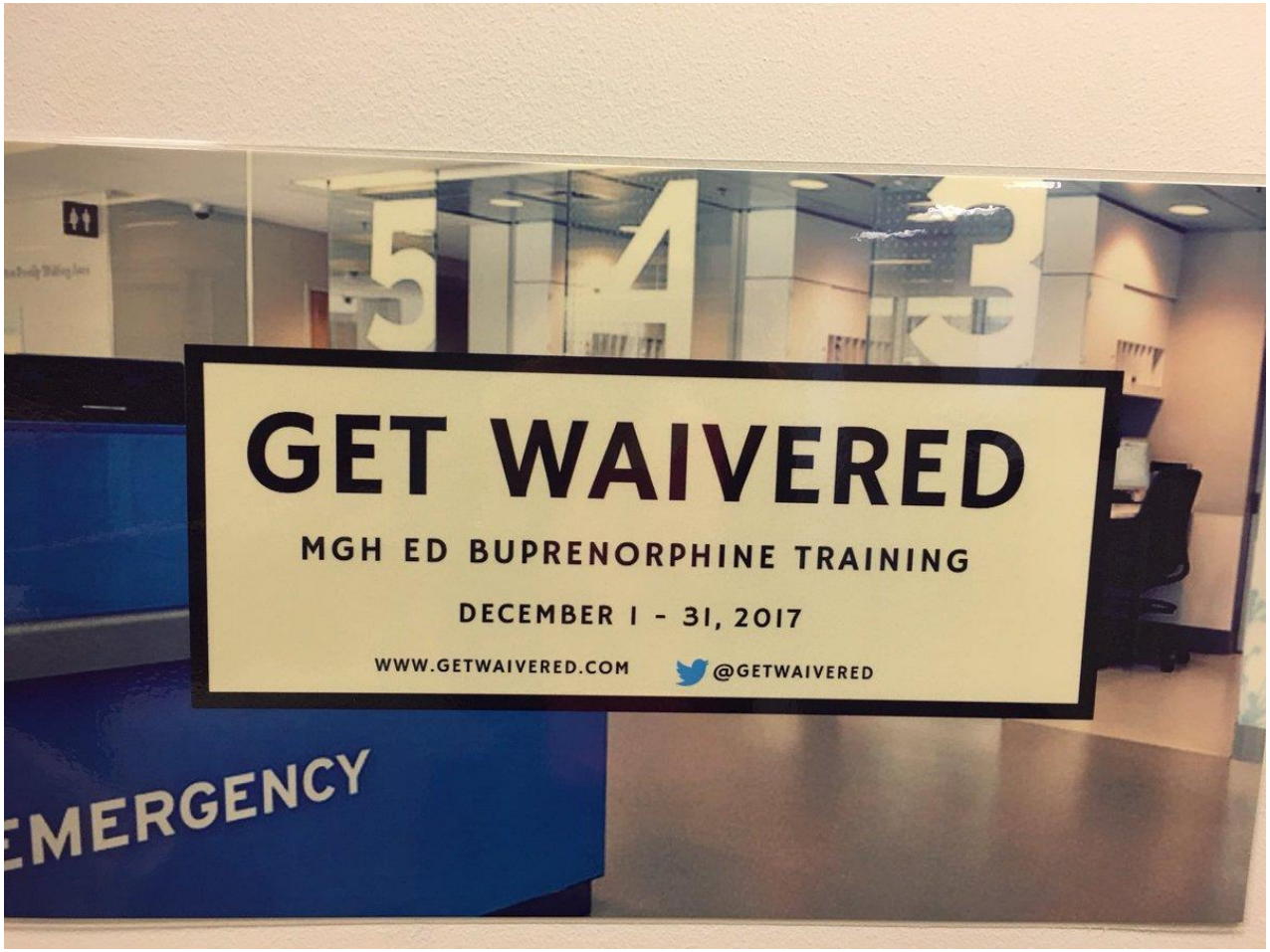
- On demand, low threshold multidisciplinary services 7 days per week
- Flexible model crucial!
  - 50% visits not scheduled ahead
- Team managed by Internist
  - Supported by NP, MA, Resource Specialist and Peer
  - Soon to add Psychologist and Psychiatrist
- First priority is engagement
- MAT offered same day

To Date:

- 596 patients
- Mean LOS 76 days, median 25.5
- ~25% stay more than 1 year

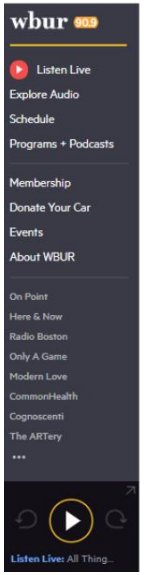
For recent inpatients, 10.4% readmitted within 30 days

ED Initiated Treatment



Emergency Department

- 41/46 ED physicians now trained to prescribe buprenorphine through #getwaivered campaign
- In March, launched first ED-initiated buprenorphine protocol in the nation
- Patients with OUD can received a take-home pack that includes two days of buprenorphine and naloxone
- Bridge Clinic provides follow-up care
  - Patients given referral and encouragement to come to Bridge Clinic



HOPE Clinic

Harnessing support for Opioid use in Pregnancy and Early childhood (HOPE)

- Integrated one-stop-shop for pregnant and parenting women, partners, and child through first 1000 days of life
  - Collaboration between OB, Neonatal Medicine, Primary Care, Psychiatry, Social Work and Nursing
- Directed by Family Medicine physician with Addiction Medicine credential, with all other disciplines available on clinic days.
- Opened April 2018
  - 22 families currently
- Collaborate closely with Bridge
- Working to establish relationships with community based providers, local legal and child protection services

MassGeneral Hospital *for* Children℠

MGH 1811 MASSACHUSETTS GENERAL HOSPITAL

OBSTETRICS & GYNECOLOGY

Support & Education Across the Hospital

- Extending model to new settings:
  - Pediatrics:
    - Champions
    - Embedded BH care
    - Family care
  - Oncology
    - Tumor Board for SUD
    - Enhanced psychiatric services

MassGeneral Hospital for Children℠

MGH 1811 MASSACHUSETTS GENERAL HOSPITAL CANCER CENTER

- Extending model throughout primary care
  - Adding large Primary Care practices on main MGH campus
  - Recovery coaches, multidisciplinary clinical rounds

The Addiction Medicine Foundation
Advancing Medical Practice in Addiction Prevention and Treatment

- Training & Mentorship
  - Training & Mentoring for Buprenorphine waiver
  - Addiction Medicine fellowship
  - CARN

ADDICTIONS NURSING CERTIFICATION CARN

OUTCOMES TO DATE

Inpatient Addiction Consultation for Hospitalized Patients Increases Post-Discharge Abstinence and Reduces Addiction Severity.

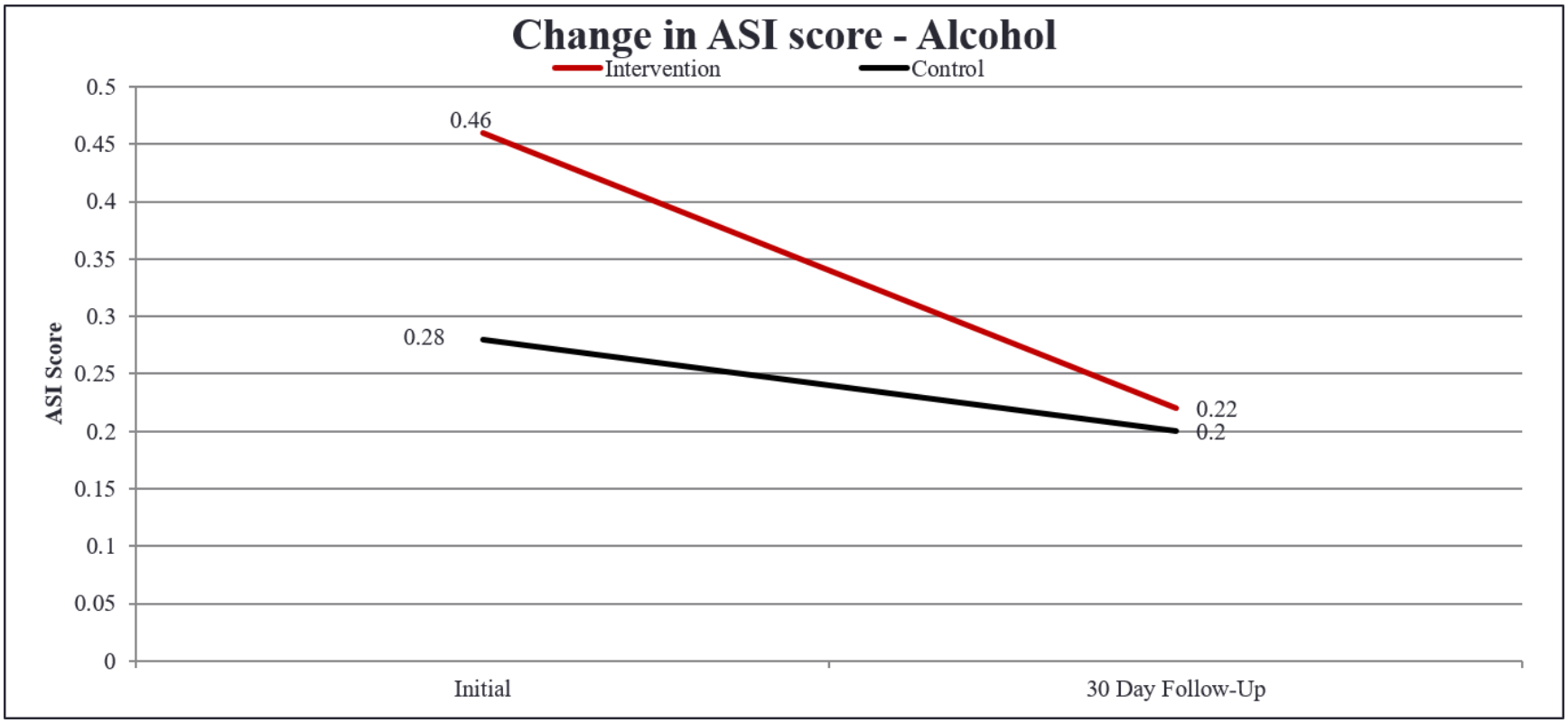
- Aim: To determine whether inpatient addiction consultation improves substance use outcomes one and three months after discharge
- Prospective, quasi-experimental evaluation of inpatient addiction consultation service
- Primary outcomes: Change in Addiction Severity Index (ASI) alcohol and drug composite scores and self-reported days abstinent at 30-days
- Primary endpoint 30-days, followed to 90d

Wakeman et al. J Gen Intern Med. 2017 Aug;32(8):909-916.

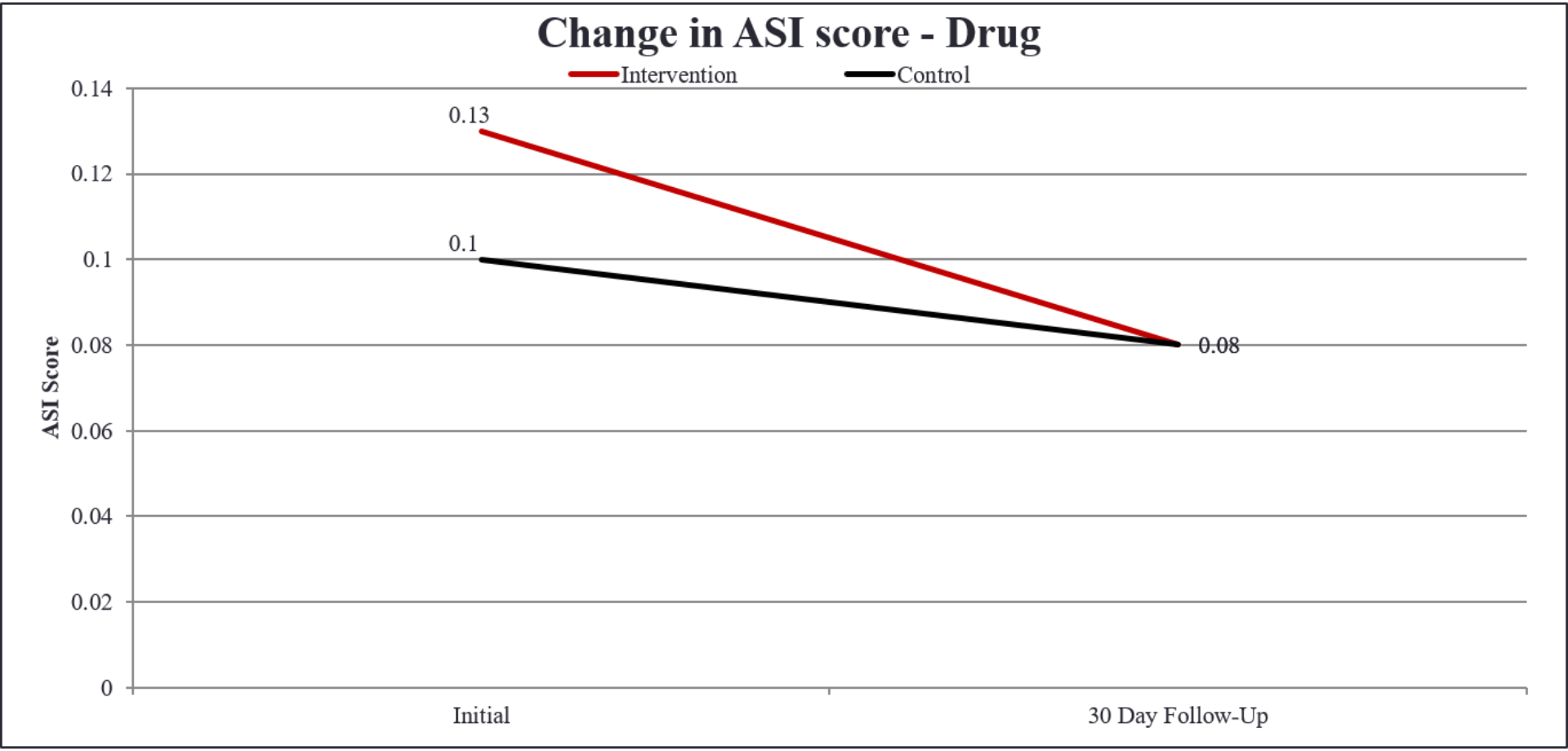
	All (N=399)	Intervention (N=256)	Control (N=143)	P value
Major substance problem, N (%)				0.88
Alcohol	218 (55)	141 (55)	77 (54)	
Drug	143 (36)	92 (36)	51 (36)	
Both	38 (10)	23 (9)	15 (10)	
Age, Mean (SD)	48 (14)	46 (13)	51 (15)	0.006
Female, N (%)	110 (28)	77 (30)	33 (23)	0.14
Caucasian, N (%)	324 (81)			
Education, N (%)				
High school or less	216 (54)			
More than high school	91 (23)			
Unknown	92 (23)			
Employment Status, N (%)				
Employed/Student	81 (20)			
Retired	32 (8)			
Disabled	78 (20)			
Not employed	179 (45)			
Unknown	29 (7)			
Smoking Status, N (%)				0.002
Never	53 (13)	31 (12)	22 (15)	
Past	37 (9)	14 (5)	23 (16)	
Active	255 (64)	177 (69)	78 (55)	
Unknown	54 (14)	34 (13)	20 (14)	
Baseline ASI alcohol, Mean (SD)	0.41 (0.33)	0.46 (0.34)	0.31 (0.31)	<0.001
Baseline ASI drug, Mean (SD)	0.13 (0.15)	0.15 (0.16)	0.10 (0.11)	<0.001

Primary drug:
- **Heroin 52%**
- **Other opioids 9%**
- **Cocaine 15%**
- **Multiple drugs 15%**

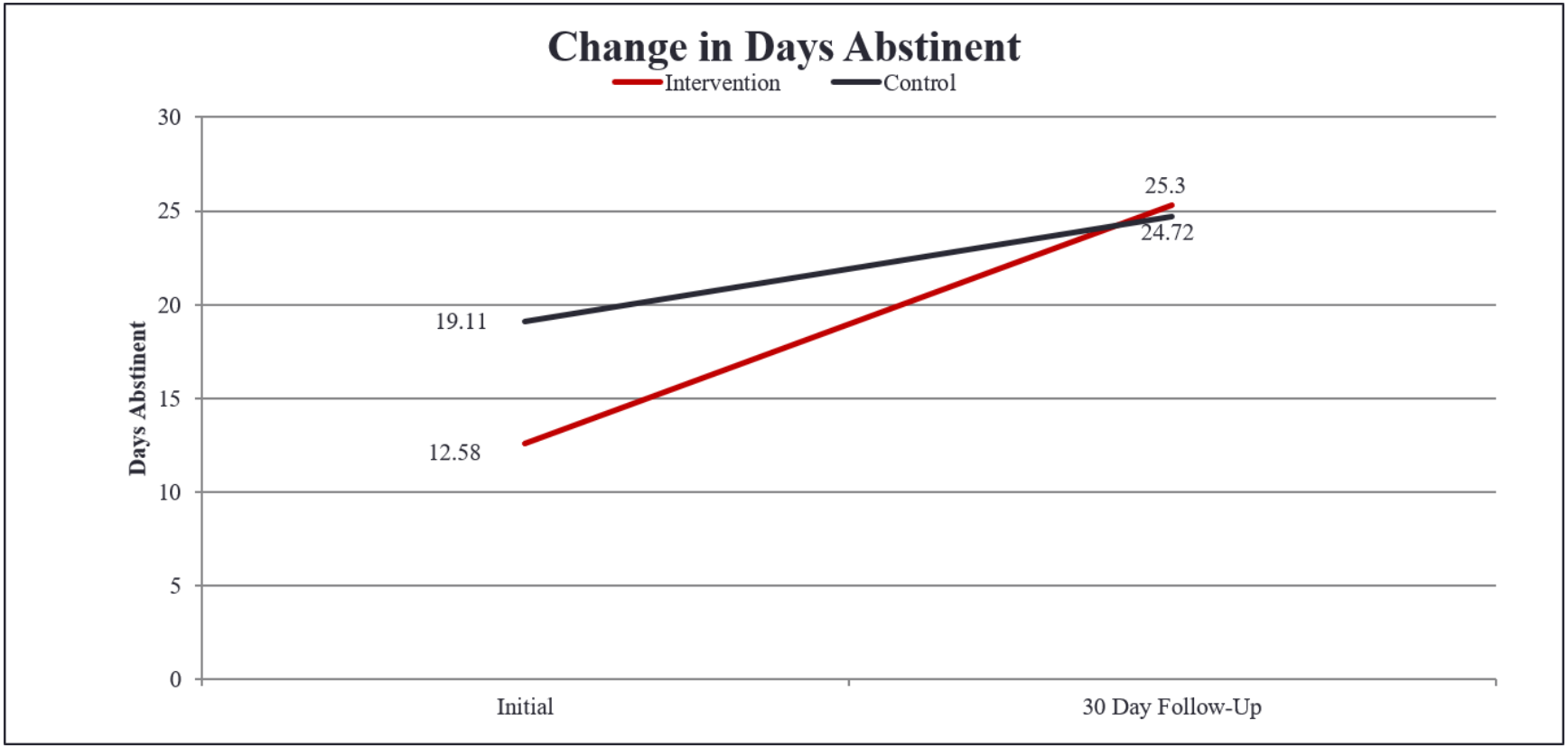
Alcohol ASI score



Drug ASI score



Days Abstinent



Secondary Outcomes

		30-day follow-up			90-day follow-up		
		Intervention (N=165)	Control (N=100)	P value	Intervention (N=144)	Control (N=83)	P value
Mutual help Attendance	Baseline	4.5 (9.5)	2.9 (7.3)	0.12	5.1 (10.2)	2.9 (7.6)	0.065
	Follow-up	8.1 (12.3)	4.4 (8.2)	0.004	9.0 (11.9)	5.1 (8.7)	0.005
	Change	3.6 (12.4)	1.6 (7.6)	0.10	3.9 (13.4)	2.2 (8.0)	0.23
Treatment engagement (%)	Baseline	30.5	30.3	0.97	30.5	29.6	0.89
	Follow-up	57.9	41.4	0.009	54.6	40.7	0.047
	Change	27.4	11.1	0.018	24.1	11.1	0.092
Hospital admission	Baseline	1.2 (1.4)	0.5 (0.9)	<0.001	1.1 (1.4)	0.5 (1.0)	<0.001
	Follow-up	0.4 (1.1)	0.2 (0.8)	0.14	0.2 (0.8)	0.1 (0.6)	0.25
	Change	-0.8 (1.6)	-0.3 (0.9)	0.001	-0.9 (1.4)	-0.4 (0.7)	<0.001
ER use	Baseline	1.5 (2.1)	0.7 (1.4)	<0.001	1.3 (1.6)	0.8 (1.5)	0.017
	Follow-up	0.6 (1.6)	0.3 (0.9)	0.10	0.3 (1.0)	0.2 (0.8)	0.21
	Change	-0.9 (1.6)	-0.3 (1.3)	0.002	-0.9 (1.8)	-0.6 (1.4)	0.084
Current Quality of Life	Baseline	5.0 (3.0)	5.5 (3.0)	0.23	5.0 (2.9)	6.0 (2.9)	0.021
	Follow-up	5.9 (2.9)	6.2 (2.7)	0.45	6.3 (2.8)	6.7 (2.9)	0.29
	Change	0.9 (3.1)	0.7 (2.8)	0.61	1.3 (3.0)	0.7 (2.8)	0.20
Self-efficacy	Baseline	6.9 (3.0)	6.8 (3.7)	0.65	7.0 (2.9)	7.2 (3.5)	0.62
	Follow-up	7.2 (2.8)	7.3 (3.2)	0.93	8.1 (2.6)	7.4 (3.2)	0.098
	Change	0.3 (3.5)	0.5 (3.6)	0.61	1.1 (3.6)	0.2 (3.3)	0.054

Institutional Substance Use Disorder Intervention Improves General Internist Preparedness, Attitudes, and Clinical Practice.

- Aim: To evaluate the impact of a SUD initiative on general internists' attitudes, clinical practices, and preparedness to care for patients with SUD.

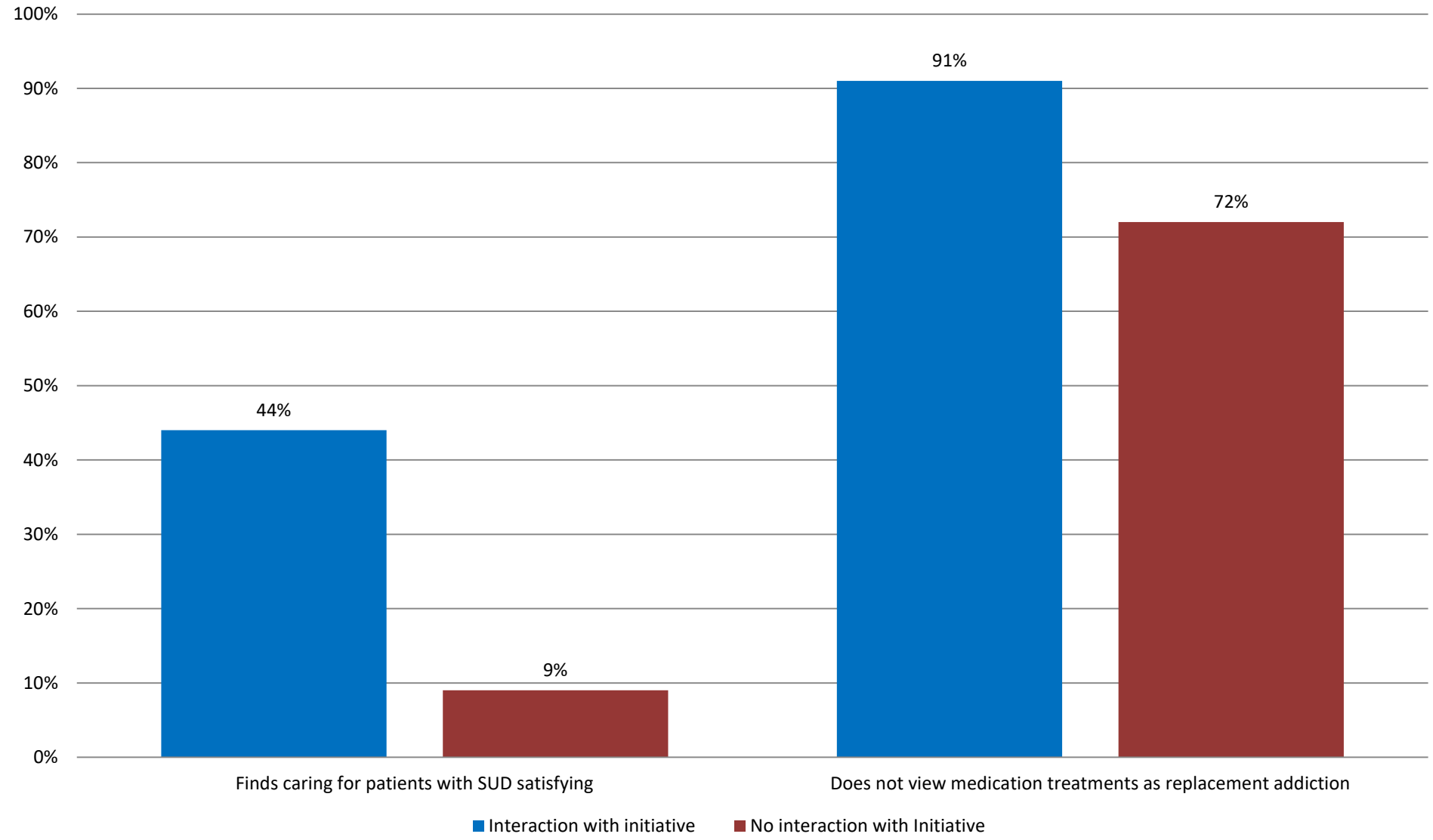
Wakeman SE, Kanter GP, Donelan K.

J Addict Med. 2017 Jul/Aug;11(4):308-314.

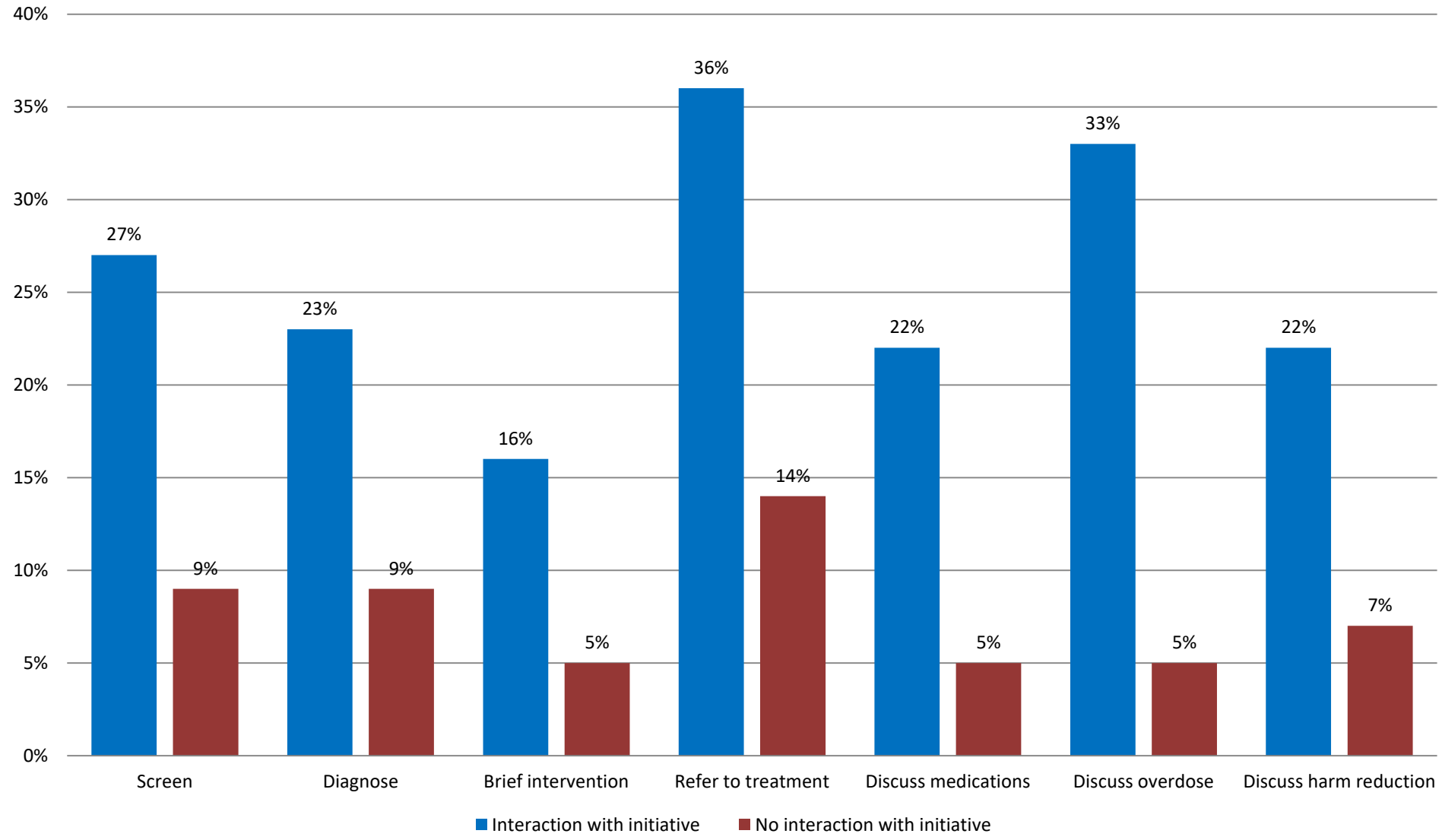
Table 1: Summary Statistics

Respondent Characteristics	2014	2015	Difference	p-value
% female	65.3%	59.8%	-5.4%	0.382
% time spent providing clinical care	70.8%	71.1%	0.2%	0.946
% with family history of SUD	38.0%	37.7%	-0.3%	0.960
Years since medical school graduation	18.5%	19.2%	0.7%	0.612
Practice Characteristics				
Clinical practice related to SUD				
% frequently see a patient in clinical practice with SUD	46.6%	59.3%	12.7%	0.437
% frequently have a patient ask you for help with SUD	8.3%	15.6%	7.2%	0.084
% frequently receive request for help from pt's family	8.3%	9.1%	0.8%	0.836
% frequently refer a patient to treatment for SUD	15.0%	20.5%	5.5%	0.266
% frequently prescribe naloxone for patient at risk for OD	4.2%	7.5%	3.3%	0.287
% frequently prescribe a medication to treat SUD	5.9%	11.7%	5.7%	0.120
Distribution of Respondents by Practice Setting				
Acute care hospital	25.6%	19.7%		
Outpatient community health center	21.5%	32.8%		
Outpatient hospital-based primary care practice	41.3%	34.4%		
Outpatient off-site primary care practice	11.6%	13.1%		
				0.196
Sample size	121	122		

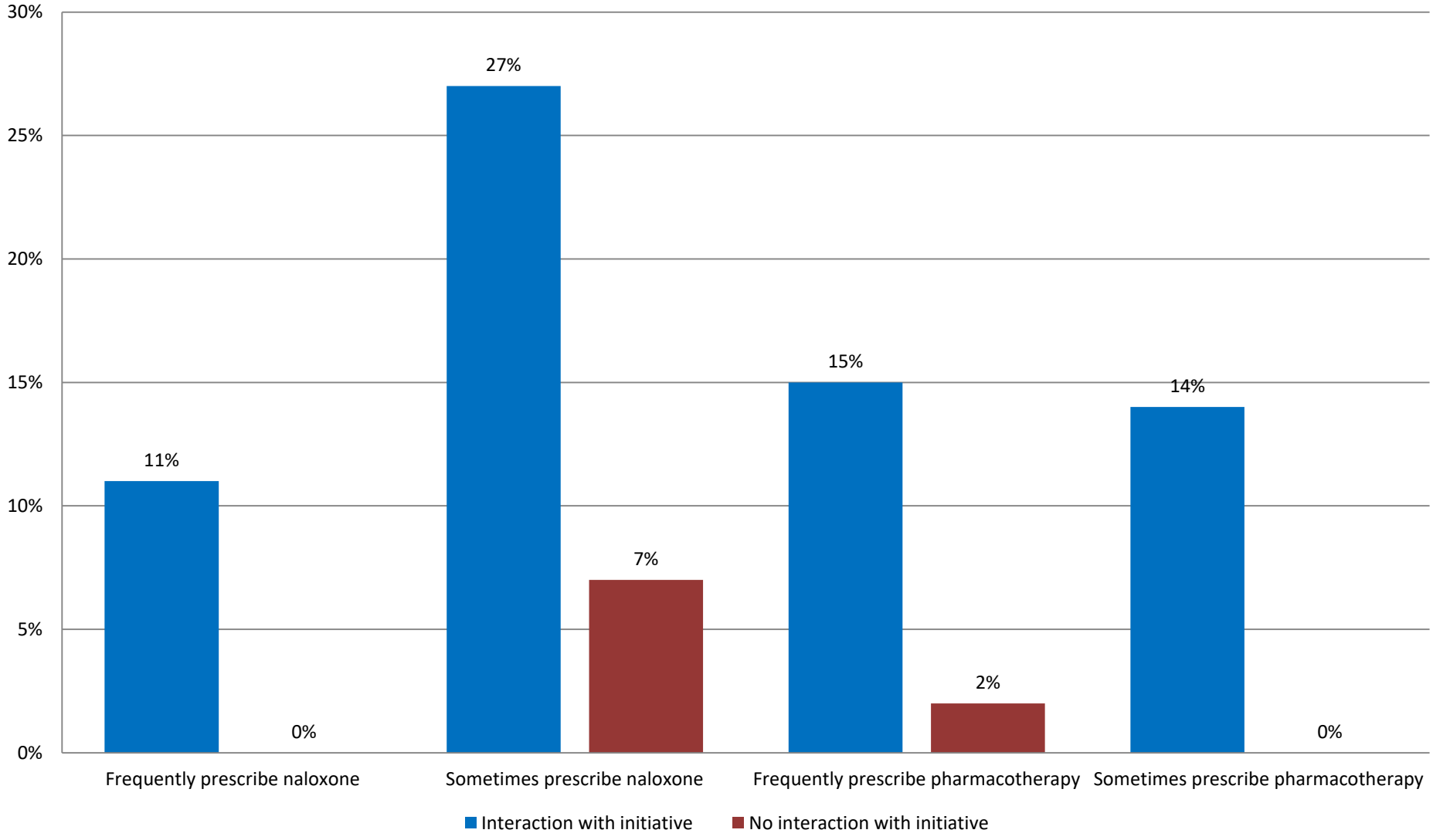
Attitudes


100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
44%
9%
91%
72%
Finds caring for patients with SUD satisfying
Does not view medication treatments as replacement addiction
Interaction with initiative
No interaction with Initiative

Percentage who feel very prepared



Prescribing Medications for SUD



Addressing substance use disorder in primary care: The role, integration, and impact of recovery coaches

- Explore perceptions about the ways that recovery coaches affect client recovery and wellness
- Semi-structured qualitative interviews
- 5 Recovery coaches and 16 patients
- Constant comparative method to guide inductive coding; 2 coders

Jack HE, Oller D, Kelly J, Magidson JF, Wakeman SE
Subst Abus. 2017 Oct 9:1-8.

Recovery Coach Role

Activity	Definition
System navigation	Helping the patient access **treatment**, assisting with applications for **social services**, and **accompanying** the patient to court or medical appointments
Behavioral modification	Eliciting and sustaining **discussions** with patients about changing behaviors in **multiple wellness domains**, including substance use and diet
Harm reduction	Providing patients with **clean needles or naloxone kits** and helping homeless patients get clothing and food if they did not want to be housed
Relationship building	Spending time with the patient **without a specific agenda**, often on the street or over a meal, coffee, or a cigarette

Strengths of the RC role

Strength	Illustrative quote
Accessibility	“If you think you're going to have a bad day, the best thing is try to get [the coach] first… and then say, ‘Look, I'm having a bad day. Is it possible you could come and sit in with me?’” – Patient
Shared experiences	“I guess she has family who has gone through, who had endocarditis and stuff, so I felt a sense of relation that opened the door that I don't feel with the doctors.” – Patient
Motivating behavior change	“There is a time I wanted to leave AMA from the hospital in the pouring rain because all my friends that hang around the hospital because that's right, help with drinking, and she talked me out of it by reminding me, ‘Oh you'll get drunk, but you know you'll be back here tomorrow.’” – Patient
Links to social services	“[My coach] knows about food stamps, section E, regular housing, disability housing, just about everything. Just about everything, everything that you don't want to ask the doctor.” – Patient

Challenges of the RC role

Challenge	Illustrative quotes
Patient discomfort with asking for help	“It's hard for me to ask for help. It is. I just—I don’t know—maybe feel weak or something.” – Patient
Lack of clarity in coach role	“He was suicidal. I didn't know what to do with that. He would call and he was sobbing, I mean crying hysterically, and it would break my heart every time he called. But at the same time, I was like, ‘I don't know what to do with this. I'm not trained for this.’” – Coach
Tension between coach and care team	“What happens is the medical degrees kind of overshadow practical experience.” – Coach “[The medical team] don't know what to do. They looked at me like, ‘Well, that's why we hired you. Like, figure it out.’” – Coach

Buprenorphine Treatment Outcomes with Recovery Coaching

- Retrospective evaluation of buprenorphine treatment outcomes among patients receiving recovery coaching (*n*=154)
- Among those prescribed buprenorphine, abstinence significantly increased following recovery coach contact:

  Number of months abstinent:

  - Pre-coaching: median 1 month abstinent; Post-coaching: median 4 months abstinent ($p<0.0001$)

  Abstinence at target time periods:

  - Abstinence rates significantly increased from 70% in the 3 months prior to starting coaching to 90% by 12 months (3 to 6 month period after recovery coach contact, $p<.001$)

Lessons Learned

- Stakeholder engagement crucial
- Employ motivational interviewing for systems
- Heterogeneity of patient population and wide spectrum of need/severity
- Top down and bottom up approach useful

Questions?