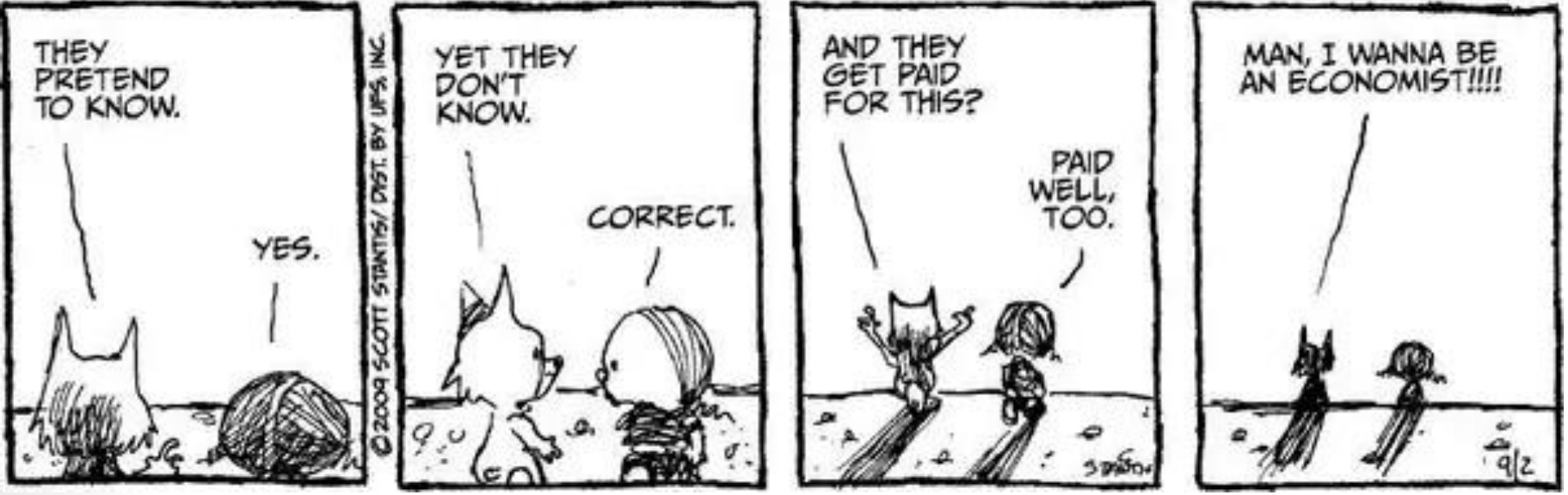
ROI in SUD Treatment

Andrew Suchocki, MD, MPH
Stacie Andoniadis, Care Oregon

Objectives

- DISCLOSURE:
  - Stacie Andoniadis and Andrew Suchocki are NOT health economists
  - Pat Luedtke, Health Officer for Lane County, Oregon can not make it today and Andrew Suchocki will be discussing his slides. While they are compelling, Andrew's mastery of the project is less. Empathy and understanding are requested, thank you.
- Discuss literature foundation on ROI for treating addiction w/ MAT
- Provide an overview of the FUSE program in Eugene, OR
- Review a Medicaid CCO's population and data driven approach to patients with ID'd OUD



Funny Cartoons about Econmists

https://www.quora.com/What-are-some-funny-cartoons-about-economics

Cost–Benefit Analysis of Drug Treatment Services: Literature Review

- This review by Cartwright (2000) looked at ROI analyses when looking globally at societal costs (vs health care utilization). This was **not** claims based and the studies did have numerous limitations given the inherent nature of the research.
- Economic analysis of drug treatment requires sophisticated conceptualization and measurement. Drug treatment services are directed to rehabilitating individual behavior, and the analysis must have a measure of change in behavior and its impact on outcomes (effectiveness).
- In the 18 cost–benefit studies reviewed
  - A persistent finding was that benefits exceed costs, even when not all benefits were not accounted for in the analysis.
  - Studies have emphasized the cost savings to society from the reduction in external costs created by the behavioral consequences of addiction and drug use.

Cartwright WS, Cost-Benefit Analysis of Drug Treatment Services: Review of the Literature. *Journal of Mental Health Policy and Economics*. **3**, 11-26(2000)

Cartwright Conclusions

- In 18 cost–benefit studies, a persistent finding is that the benefit–cost ratio is greater than one.
- These findings are compromised by many studies with weak research designs. However, the benefits of drug abuse treatment are so robust that it appears that the conclusion of positive economic returns to society will stand as better studies are implemented.
- Further research should contribute to narrowing the range of such estimates through standardization of the estimates and the implementation of stronger research designs.

One Example from Cartwright review

- Over 40 years ago, Leslie, et al evaluated a hypothetical strategy in New York City where:
  - The intervention was methadone, detox, and housing.
  - The eventual result was the re-allocation of resources within the treatment system.
  - Benefits defined as social costs averting a year of drug use
  - Effectiveness estimates were not evidence based

Table 2. Benefit–cost ratios in five programs, New York City

Program type	Cost ($)	Benefits ($)	Benefit–cost ratio
Detoxification	86	1764	20.5
Antagonists	5000	95970	19.2
Methadone	9100	71978	7.9
Odyssey House	12500	81437	6.5
Increased legal enforcement	10000	34275	3.4
Phoenix House	17305	52783	3.1
Heroin maintenance	18000	50590	2.8
State Narcotic Addiction Control Commission	16000	44558	2.8
Involuntary incarceration	55000	93502	1.7
Heroin legalization	35000	44146	1.3

Leslie AC. *A Benefit/Cost Analysis of New York City's Heroin Addiction Problems and Programs*. New York: Health Services Program, 1971.

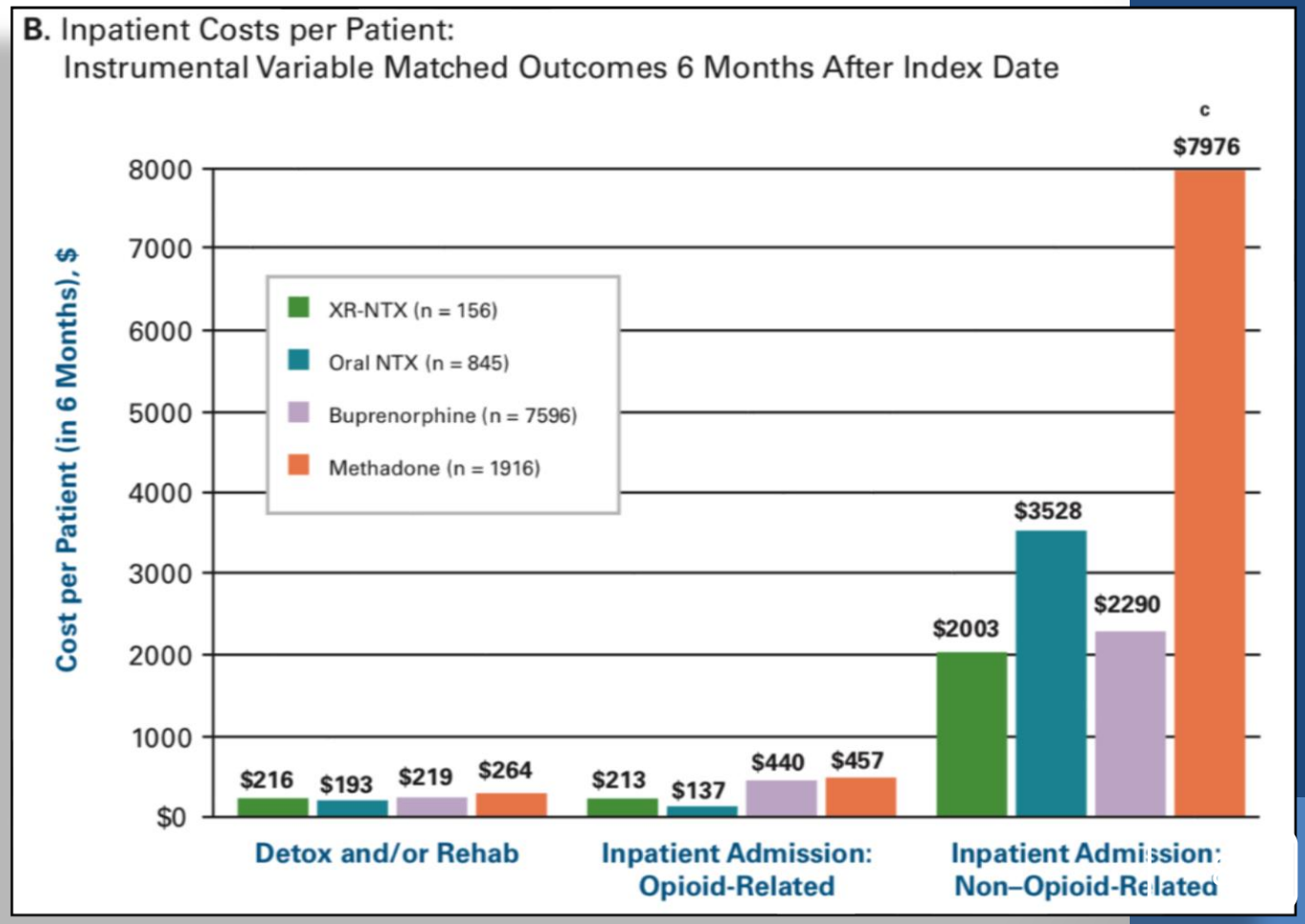
Managed Care Literature: Cost and Utilization Outcomes for OUD Tx

- Purpose: To evaluate the healthcare costs associated with treatment of opioid-dependence disorder with medications versus no medication, and with the 4 agents approved by the US Food and Drug Administration (FDA) via retrospective claims analysis
- Methods– large health plan ID'd OUD pts, included all pharmacy and medical claims
  - 13,316 pts w/ OUD w/o treatment (defined as NTX-XR, NTX, buprenorphine, or methadone)
  - 10,513 pts w/ OUD with treatment (as above)
- Outcomes investigated
  - 6-month persistence
  - Utilization
  - Paid claims for OUD meds, detox/rehab, inpatient admissions (related or unrelated), outpatient services, and total cost

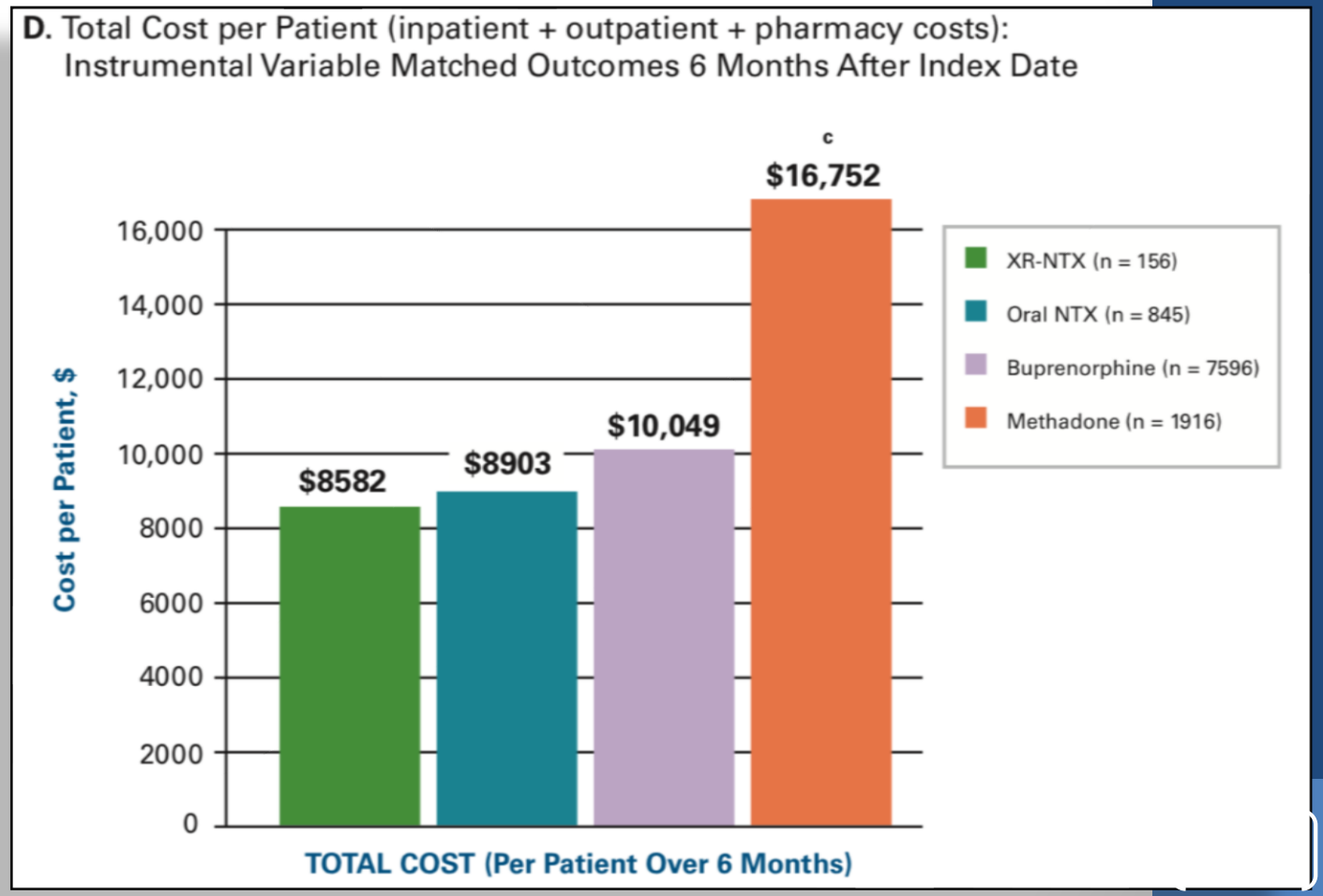
Baser O, et al. Cost and Utilization Outcomes of Opioid-Dependence Treatments. *Am J Managed Care.* 2011;17:S235-S248

Cost and Utilization Outcomes for OUD Tx

- Conculsions:
  - Medication cohort had:
    - Increased: medication costs
    - Decreased: total cost of care (including inpatient and outpatient) by 29%
  - Differences based on type of medication:
    - Extended release naltrexone patients had fewer hospitalizations than oral OUD medications
    - Total cost of care was 49% lower for buprenorphine and oral/XR-naltrexone versus methadone



- The MAT cohort had significantly fewer:
  - Admissions for detoxification and/or rehabilitation
  - Opioid-related inpatient medical care
  - Non–opioid-related inpatient medical care
- XR-Naltrexone:
  - Compared to oral OUD meds, keeps patients out of the hospital more for all indications
  - Even with the increased medication cost, this still was cost effective



Proving Benefit- Issues and Summary

- The cost of XR naltrexone was more than 10x that of methadone, however
  - Total healthcare costs associated with methadone were nearly double those of XR-NTX. That being said, methadone **does** have a role in OUD
  - these findings suggest that stand-alone budgeting based on pharmacy costs (carving out pharmacy benefits) doesn't allow one to capture cost savings effectively
- When looking at true ROI for treating addictions as a chronic disease, the data is compelling. The issue arises when different pools of money are involved. Even when healthcare savings exist, the highest ROI exists with housing, incarceration, and other societal costs
- In sum, the top three sources of cost benefit w/ OUD treatment are:
  - Reduction in criminal activity
  - Improved earning potential
  - Overall reduced healthcare expenditures

The Lane County (Eugene) Experience

Pinch hitting:

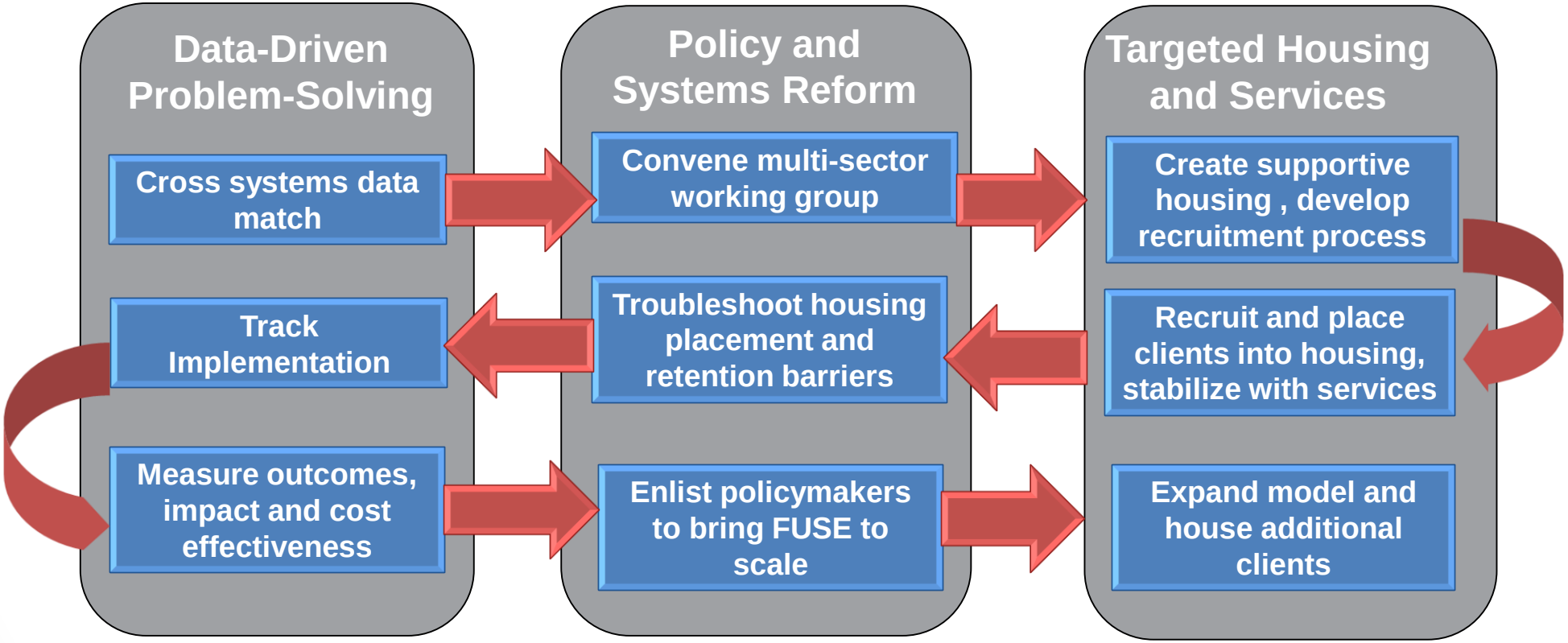
Andrew Suchocki, MD, MPH

Background

- FUSE=Frequent User System Engagement
  - Seeks to serve the most vulnerable to thrive with dignity vs cycle through institutions
- Goal is to reduce impact on hospitals, jails, and the police

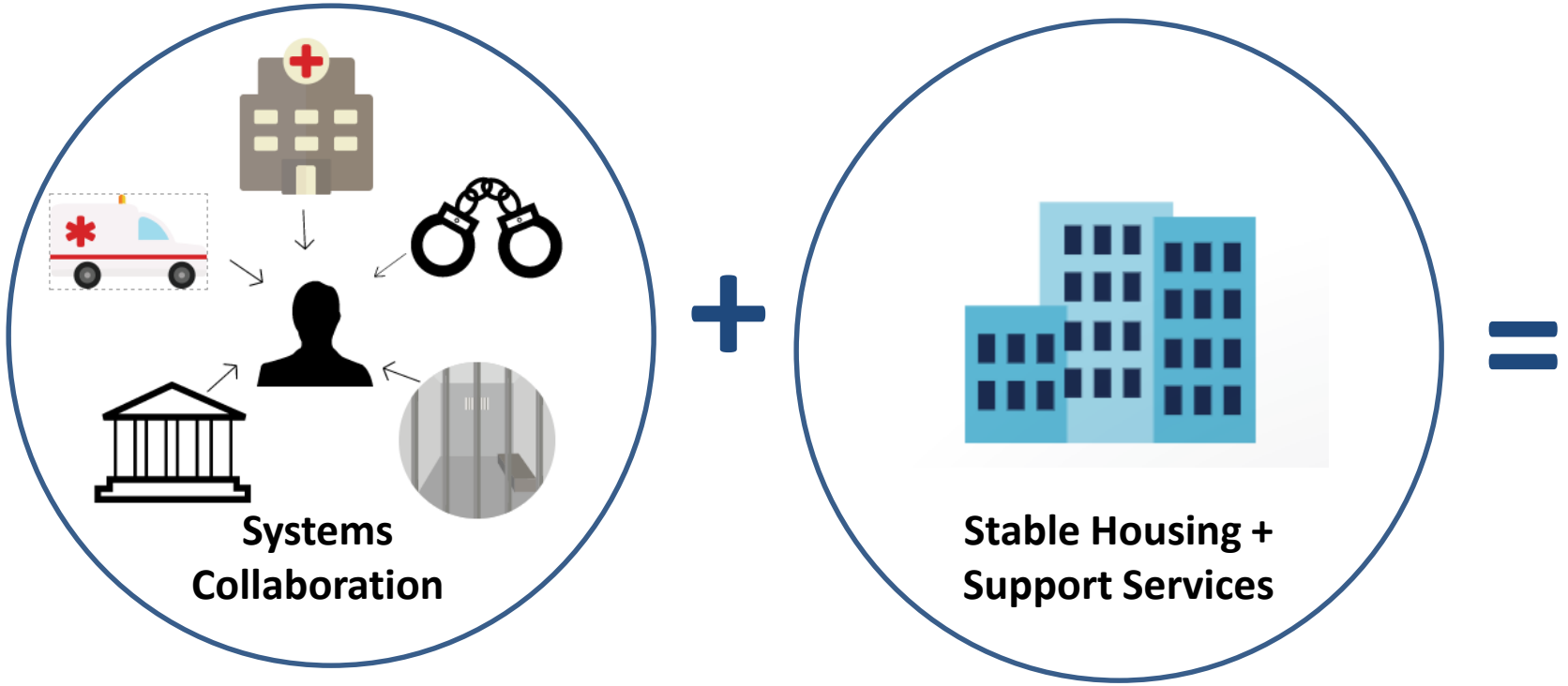
National FUSE Process Model

Communities spend billions of dollars on services that bounce vulnerable people between crisis services. CSH's *FUSE model* helps break that cycle while increasing housing stability and reducing multiple crisis service use.



csh.org/fuse

FUSE Model in Lane County



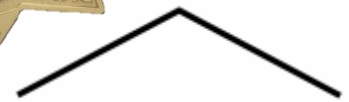
- Better outcomes
- Reduced inefficiencies
- Increased cost savings

Housing First Focus: Principles

- Issues that may have contributed to a household's homelessness can best be addressed once they are housed
- People who are homeless or on the verge of homelessness should be returned to or stabilized in permanent housing as quickly as possible and connected to resources necessary to sustain that housing
- Housing is a right to which all are entitled it is not a reward for clinical success or compliance

Housing First supports people who are homeless and living with mental illness by combining the immediate provision of permanent housing with wrap-around supports.

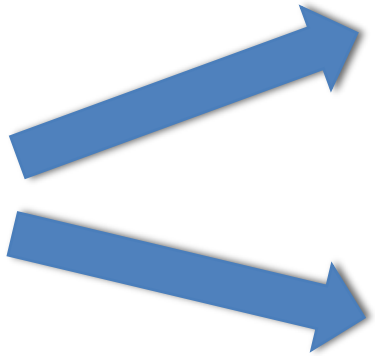
Community Partners



Pilot

Fall 2017

- Created a FUSE Steering Committee
- Developed initial FUSE list
- Contracted with ShelterCare
- Initial evaluation



Outreach to individuals on FUSE list

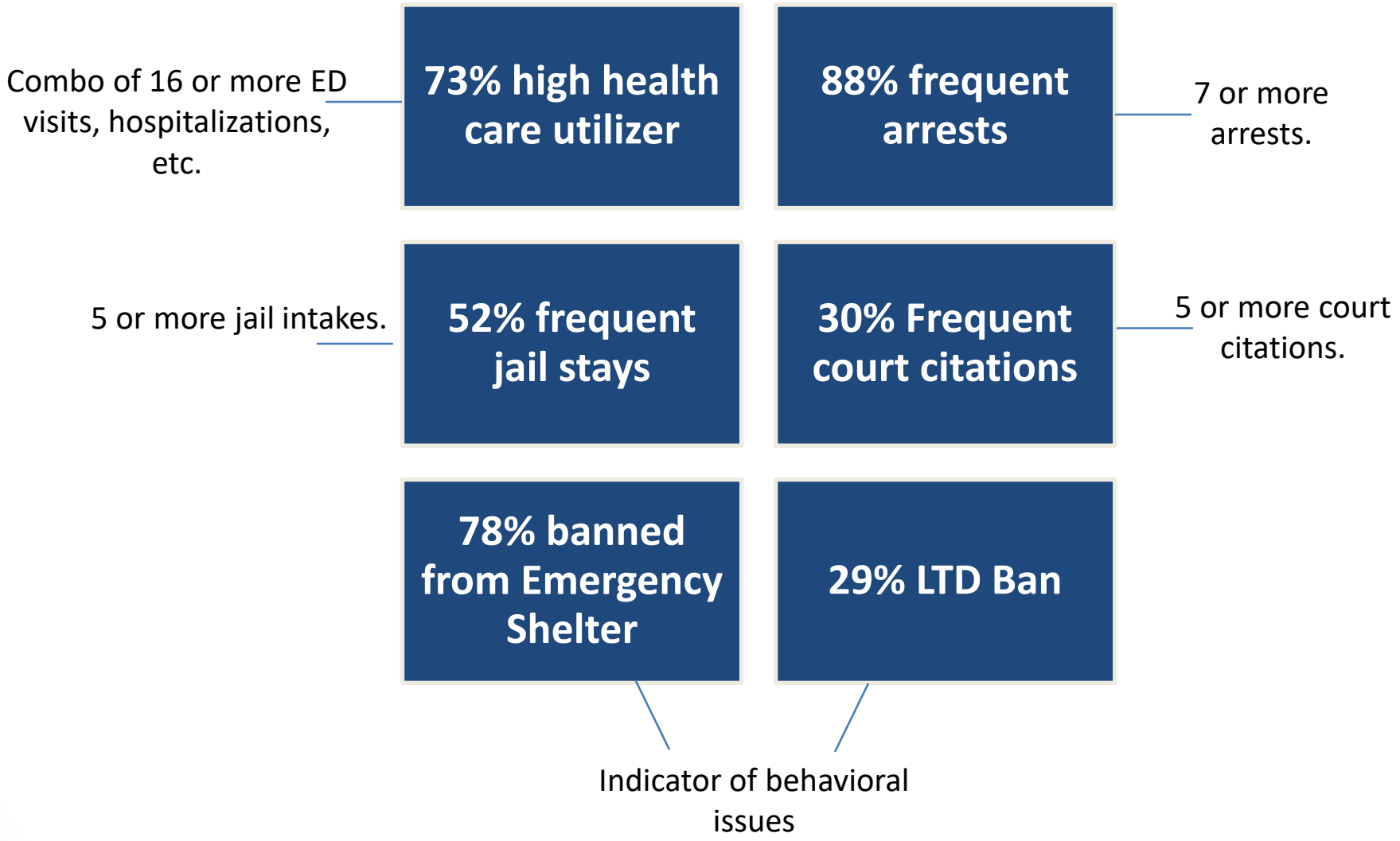
Goal: House 10 frequent users

Developing the FUSE List

Lane County created a “top 100” list of persons using the following data points:

- Police Services (arrests)
- Court Services (citations)
- Psychiatric Hospital (nights)
- In-Patient Hospital (nights)
- Emergency Departments (ER visits)
- Jail Stays (intakes)
- Emergency Shelters (nights)
- Banned from Public Transportation (Yes/No)
- Banned from Social Service Agencies: drop-in centers or food pantries (Number bans)
- Banned from Emergency Shelters (Number bans)

FUSE Top 100


Combo of 16 or more ED visits, hospitalizations, etc.
73% high health care utilizer
88% frequent arrests
7 or more arrests.
5 or more jail intakes.
52% frequent jail stays
30% Frequent court citations
5 or more court citations.
78% banned from Emergency Shelter
29% LTD Ban
Indicator of behavioral issues

FUSE Services

Outreach

- Assistance and payment for ID (birth certificates and Oregon State IDs)
- Mobile Front Door Assessments for the Coordinated Entry System
- Phone assistance to conduct housing search and applications
- Transportation
- Letters of introduction, assistance with housing search and housing applications
- Rental application fees, renters rehab tuition, deposits, payment for background and credit checks
- Advocacy with property managers, collections, parole officers, public defenders

Housing

- **Develop housing stabilization plans that promote housing maintenance**
- Provide case management
- Connect to other support services in the community
- Liaison with landlord
- Connect client to mainstream benefits (SSI/SSDI, OHP, SNAP, etc.)

Numbers served in Pilot

26 individuals enrolled in street outreach

Of those in street outreach, 11 placed into housing

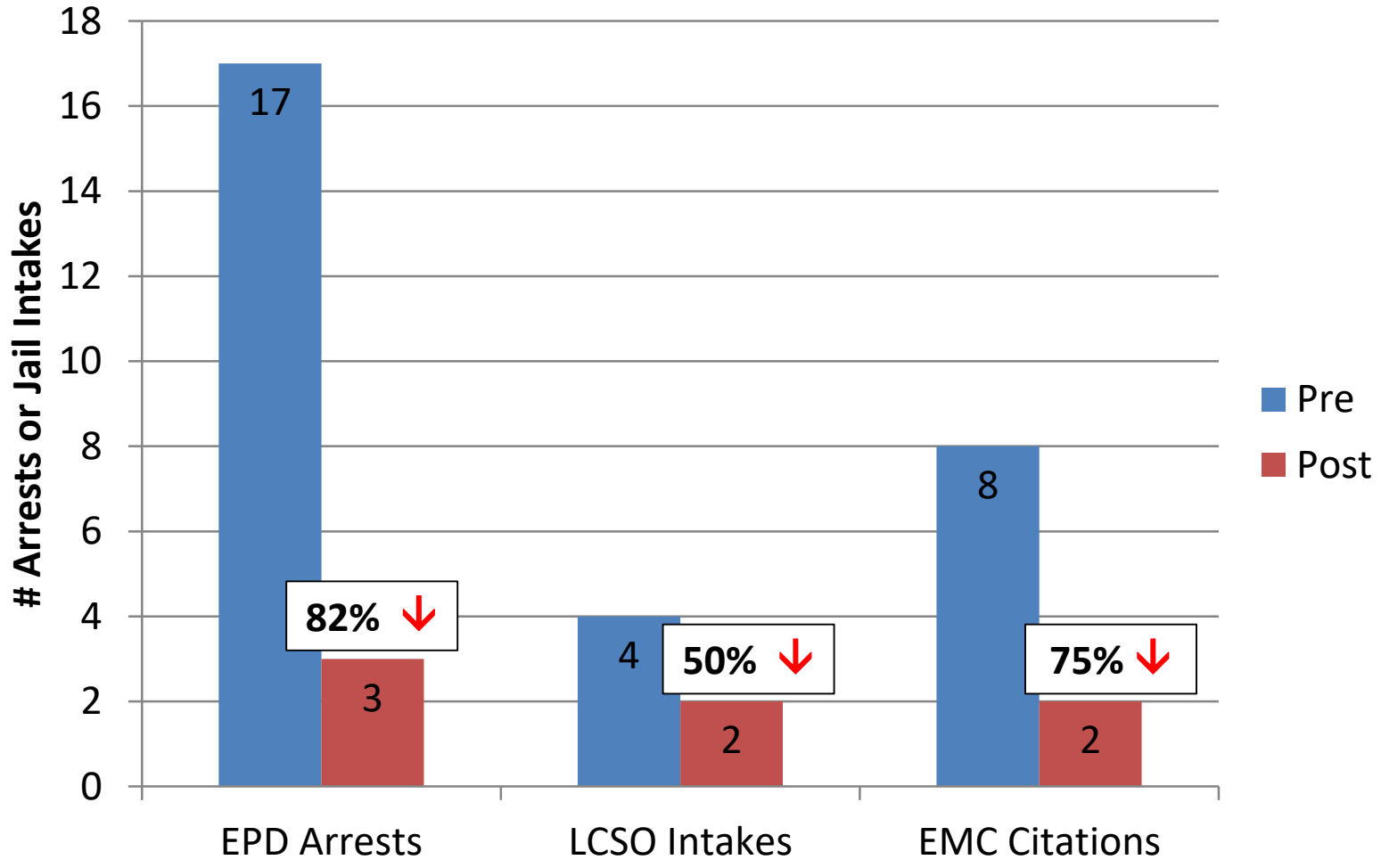
Closer look at pilot participants

- Average 7 years homeless in current episode
- Most were unsheltered
- Average VI-SPDAT score of 16 (16 is highest)
- Several impacted by mental health and substance use issues
  - 37% self-report a mental health issue
  - 12% self-report alcohol abuse
  - 14% self-report both alcohol and drug abuse
  - 29% self-report a chronic health condition
  - 23% self-report a physical disability
- High prevalence of trauma
  - Homelessness
  - Domestic violence
  - High interaction with institutions

Pilot Findings Highlights

- EPD arrests ↓ 82%
- EMC court citations ↓ 75%
- Overall healthcare costs ↓ 53%
- Emergency Department utilization ↓ 26%

Criminal Justice Findings



Healthcare Findings

Treatment	Rx	ED	BH	PCP	IP	Cost
Before	2,303	1,288	513	448	196	$3,930
After	2,492	949	443	443	89	$1,843
% Change	↑ 8.2%	↓26%	↓14%	↓<1%	↓55%	↓53%

Opportunities & Challenges

- Housing First Model is effective, but it is challenging to secure housing in the private market as FUSE participants often have high barriers to housing (criminal history, poor rental history)
  - Need to build more relationships with landlords to decrease the length of time to place someone into housing
- Train FUSE staff in SOAR or increase the community's capacity around SOAR
- Limited recovery options in the community for individuals with co-occurring mental health and substance use issues
- Engaging participants in outreach takes time
- Opportunities for Medicaid billing for tenancy supports

Improving Access to Medication for Addiction

CareOregon Process to Implementing and Improving Access

Stacie Andoniadis
CareOregon

CareOregon

Objectives:

- **Brief review of the WHY- Share finding from the HealthShare MAT Data workgroup**
- **Share CareOregon process for support implementation of Medication across primary care and other service systems.**
- **Review of upcoming Learning Collaborative and other community learning opportunities for Medication expansion.**

CareOregon

Do We See MAT impact medical utilization rates in the Tri-County area?

YES!

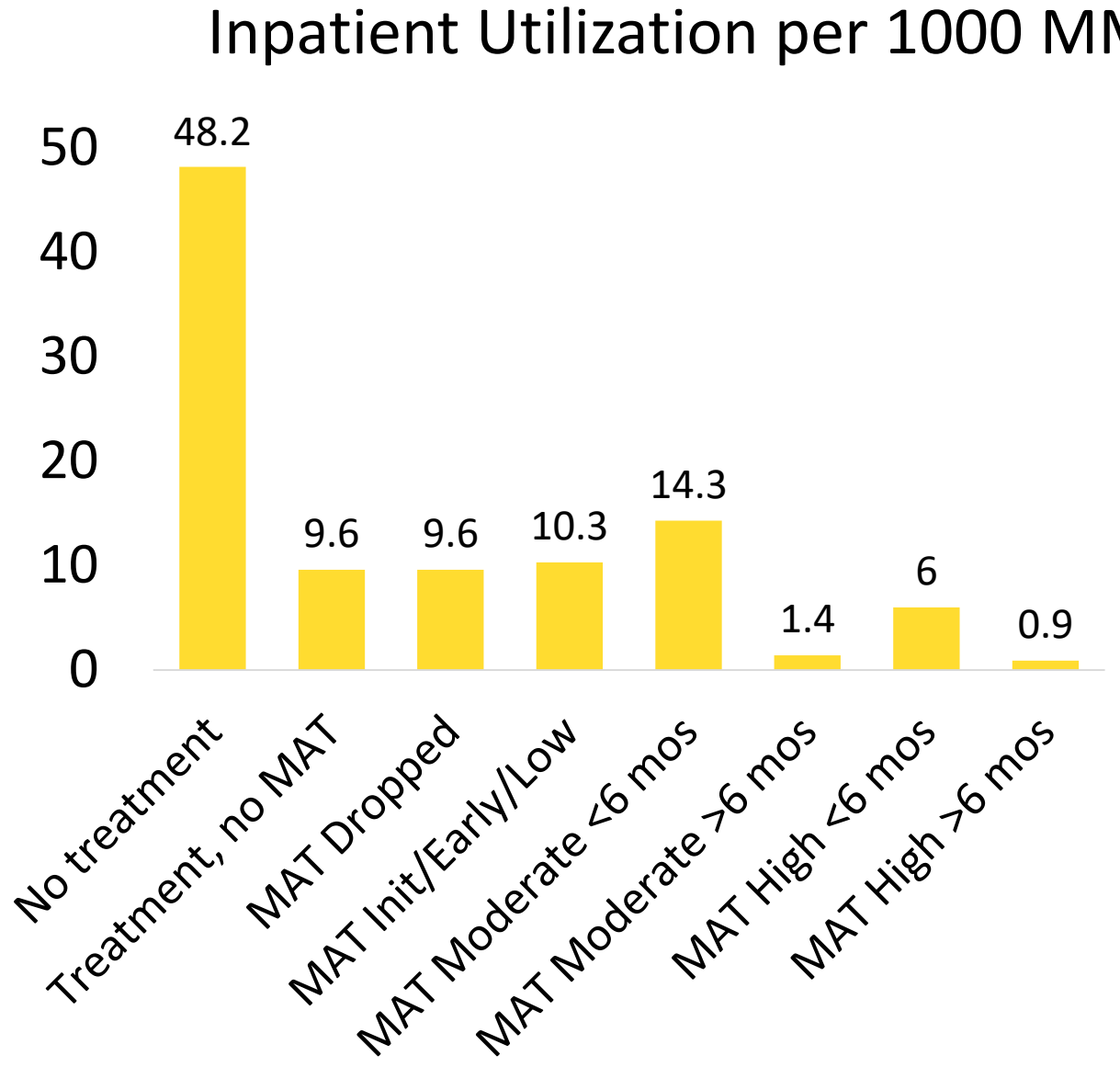
Findings from the **MAT Data Workgroup:**

-Convened by Health Share of Oregon (CCO)

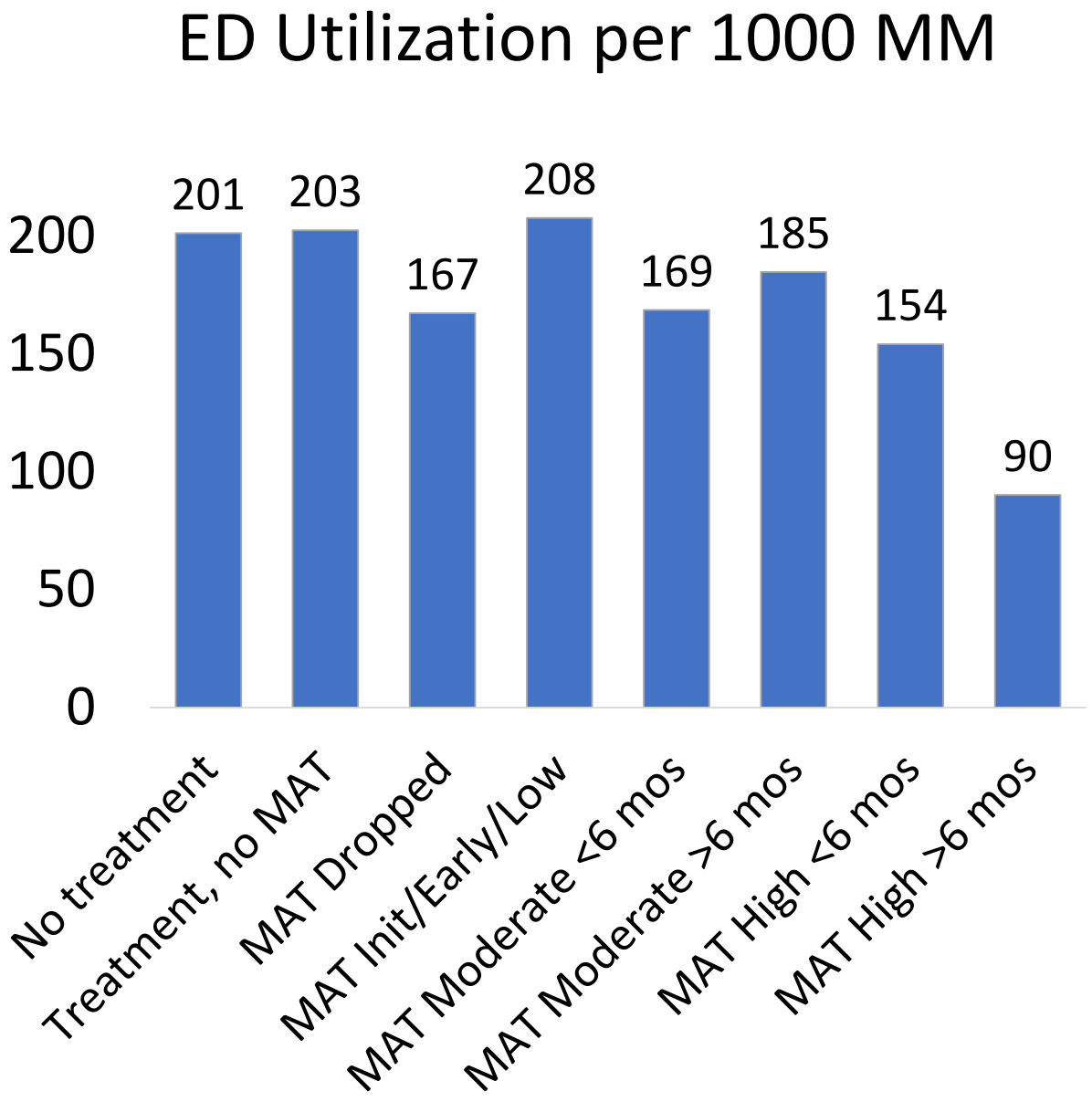
-Included representatives from behavioral health plans, behavioral health providers, physical health plans, physical health providers, and public health.

-Developed categories of MAT engagement based on a combination of days in treatment and medication possession ratio.

Members in the highly engaged MAT groups have a 96% lower inpatient utilization rate than members in the no treatment group.



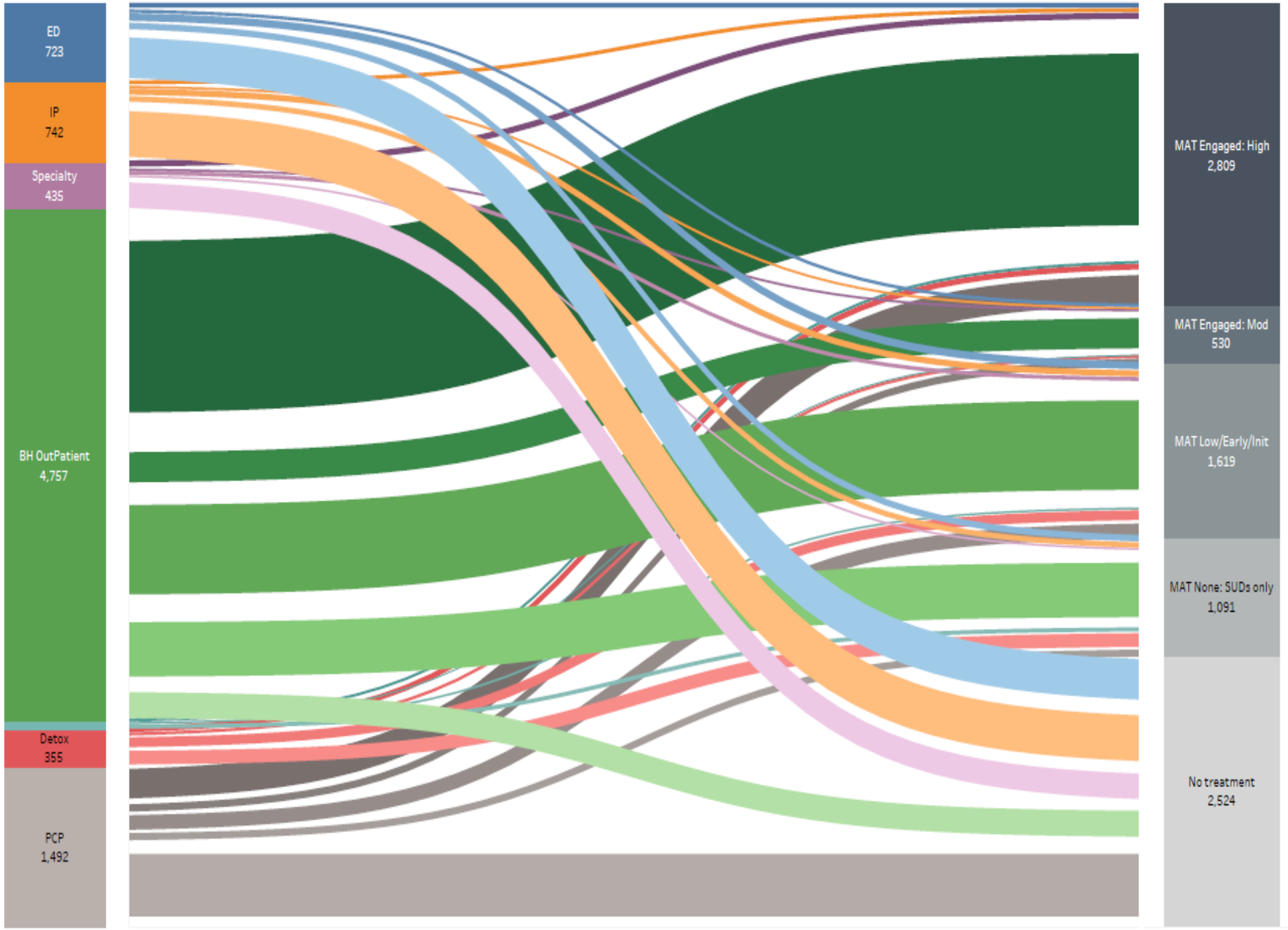
Members in the highly engaged MAT groups have a **51%** lower ED utilization rate than members in the no treatment group.



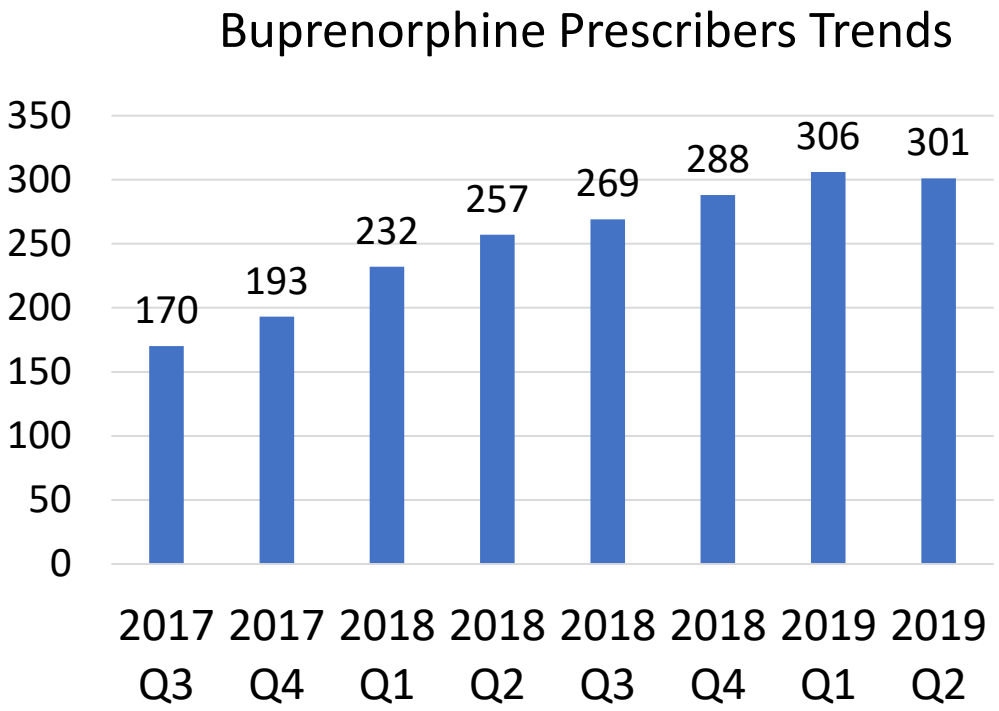
Cost difference by Cost Type

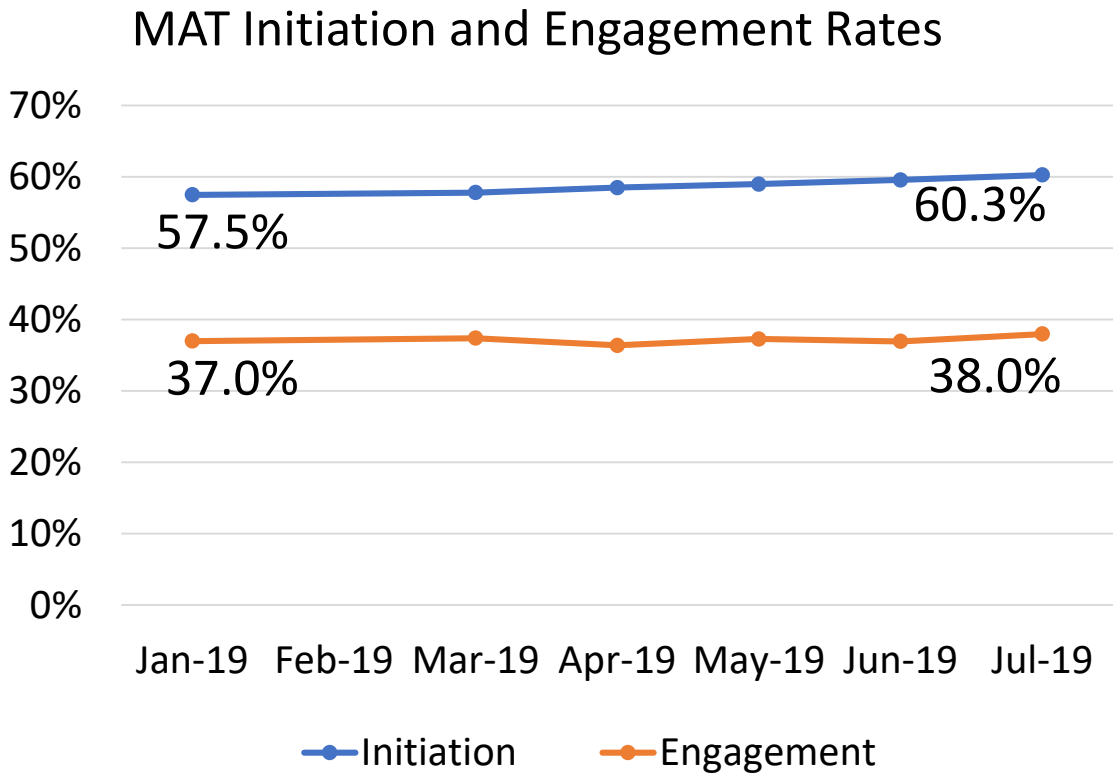
Visit type	PMPM cost differences*
Inpatient	-$420
Prescriptions (other than MAT)	-$121
Emergency dept.	-$44
Other costs (DME, etc.)	-$149
MAT (OTP and OBOT)	+$385
Transportation	+$74
Detox/Residential	+$42
PCP/Dental	+$26
BH/SUDs outpatient services	+$21
Labs	+$11
Specialty	+$9
OVERALL Difference	-$166 PMPM

*Between members highly engaged in MAT and members receiving no treatment


ED
723
IP
742
Specialty
435
BH OutPatient
4,757
Detox
355
PCP
1,492
MAT Engaged: High
2,809
MAT Engaged: Mod
530
MAT Low/Early/Init
1,619
MAT None: SUDs only
1,091
No treatment
2,524

The number of buprenorphine prescribers increased by **77%** between 2017 and 2019.

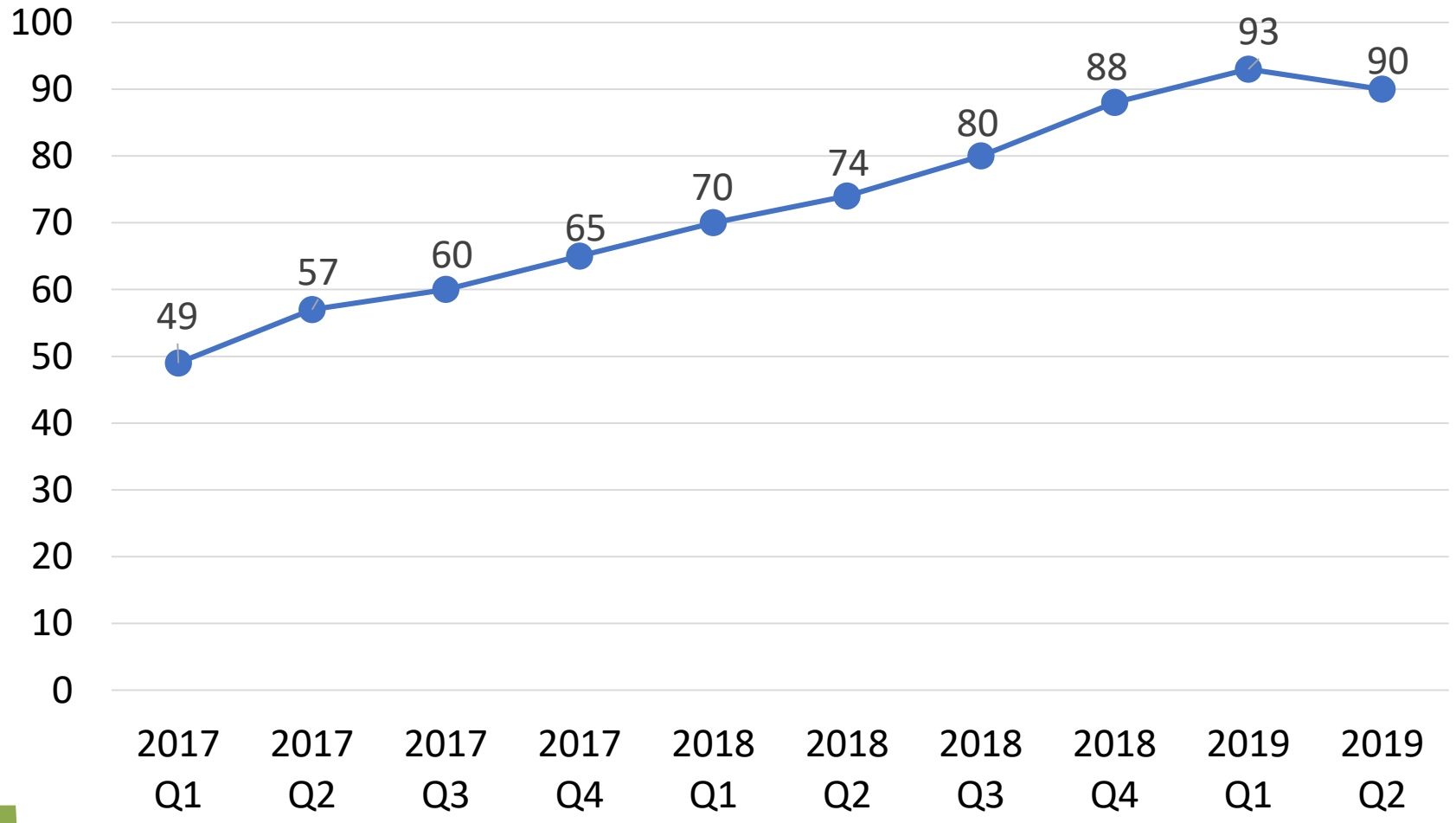




In 2019 Health Share began tracking the % of members with an OUD diagnosis who have initiated any MAT services and those who are highly engaged (receiving MAT services for 30 or more days and possessing medication 75% or more of treatment days).

health share

Primary Care Buprenorphine Prescriber Trends




NOW
WHAT?

Care Oregon Foundation
Opiate Use Disorder is a Chronic Illness

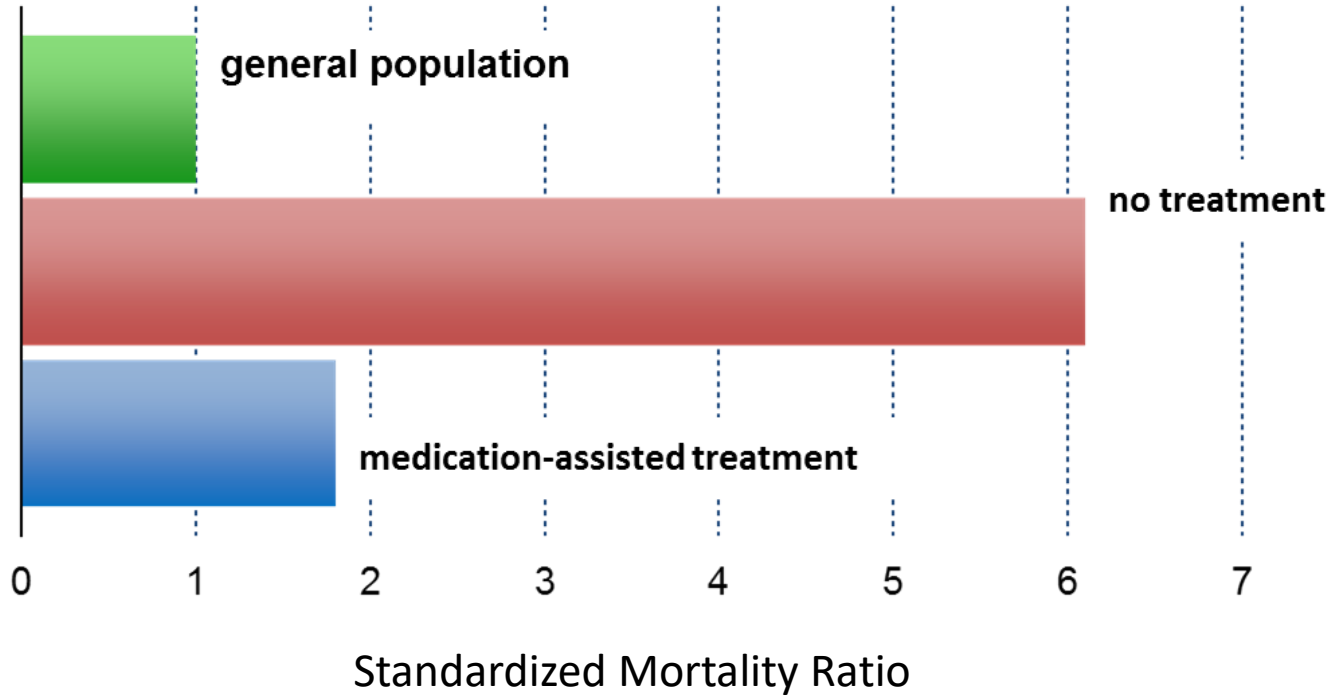
- Etiology and treatment has similarities with other conditions like diabetes
- Some patients may be predisposed to develop the condition
- Can be caused by patient behavior or as side effect of medical intervention
- Requires long-term or lifelong treatment
- If well managed, patients can continue to experience full, successful lives
- Addressing barriers to prescribing and offering education, imperative to success and increased prescribing

Focus area: Address barriers, prejudice and anti-medication thinking

- Discriminations across settings of care
- Old thinking around addiction as a character defect or moral failing.
- Erroneous characterization of addiction as a “secondary” disease not a “primary” disease: (i.e. addiction is NOT caused by emotional or psychiatric problems).
- Failure to fully recognize addiction as a relapsing/remitting disease.
- Abstinence is focus, belief that abstinence is more effective than MAT.
- This thinking results in pressure placed on patients by law enforcement, peer recovery communities, recovery housing, child welfare.

Focus Ares: Share Benefits of MAT Decreased Mortality

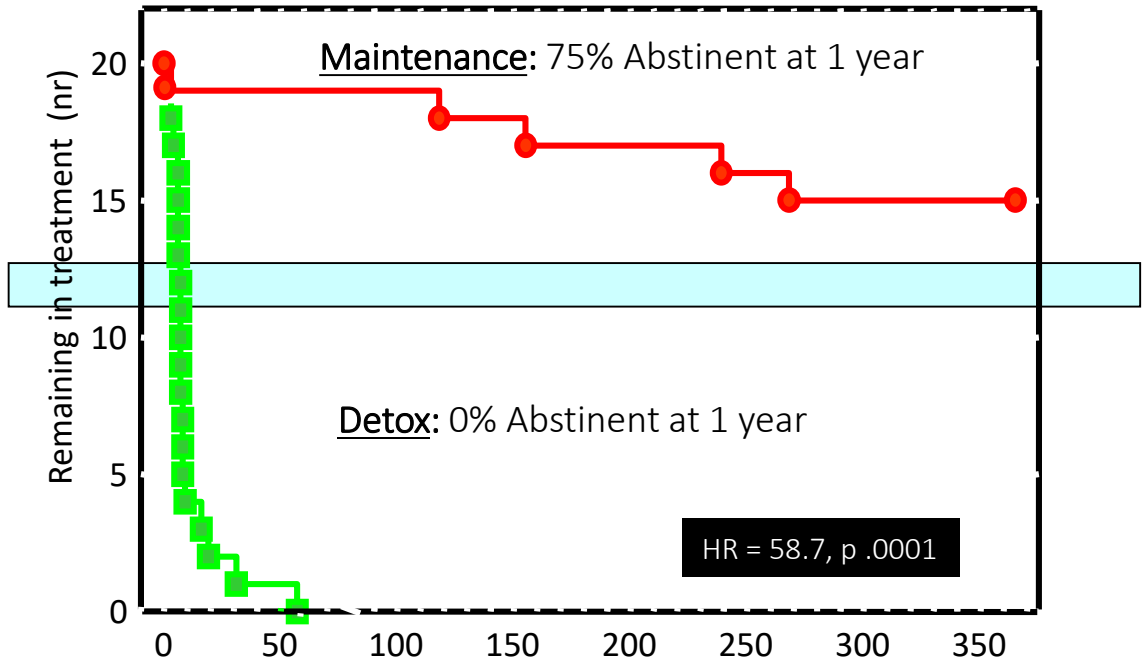
Death rates:



Dupouy et al., 2017
Evans et al., 2015
Sordo et al., 2017

From: PCSS MAT

Focus area: Increase Treatment Retention
Buprenorphine Detox vs. Maintenance



Kakko, Lancet 2003

Focus Area: Increase prescribing Medication is Under Utilized

- In 2016
- 2 million people had a substance use disorder involving prescription pain relievers and 591,000 had a substance use disorder involving heroin
- Only a fraction of those that get treatment get MAT
  - 300,000-400,000 people on methadone in a given year
  - 40,000 on buprenorphine
  - 5-10,000 on Naltrexone
- Only 10% of the people who need MAT for OUD are receiving it.
- More than two-thirds of U.S. clinics and treatment centers still do not offer MAT medications In Portland: only **TWO** residential programs admit people on MAT.

- PEW trust, (Stateline, 2016)

Capacity Building Vision: Shared strategy and goals across regions

- Build capacity where there is interest and need
- Support providers, clinics and programs through
  - Workforce development
  - Consultation
  - Patient pathways
- Encourage a network of Medication access points and recovery supports
- Develop a payment structure to encourage capacity build, sustainability

A Cross Regional Strategy

- Develop targets, track key metrics, monitor progress and provide guidance
- Support focused relationships between Primary Care and other service settings who offer MAT, with agreements around patient-sharing, care coordination, and transitions of care
- Coordinate to offer community education events that are responsive to provider, patient, and organization needs
- Provide targeted technical assistance to support capacity building and effective systems of care

MAT in Primary Care: Building Sustainable, Team-based Systems

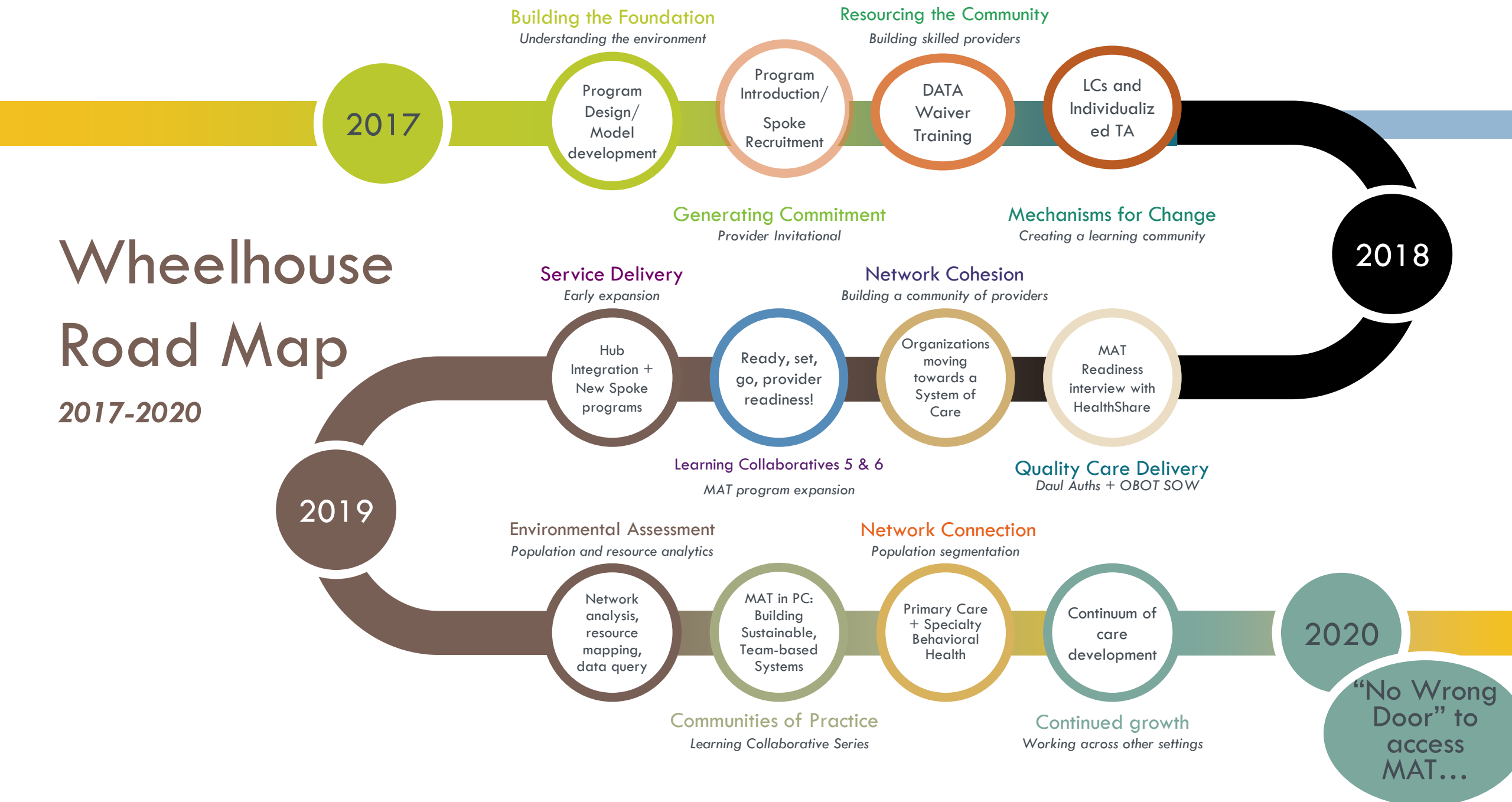
Help	Help establish community standards for the delivery of MAT in a primary care setting
Support	Support teams as they build or expand sustainable, effective MAT programs
Increase	Increase access to MAT for appropriate patients
See	See an increase in the total number of patients receiving MAT in primary care
Support	Support referral pathways between Primary Care and Specialty Behavioral Health

Community standards and ownership: In Partnership with Wheelhouse

Who are we?	Advocates for effective, team-based systems of care to treat the chronic condition of OUD in Primary Care
What are we doing?	Our task is to ensure a greater supply of MAT providers in PC to match demand, and that there are access points spread adequately around the system. Our commitment is also to pool our resources regionally, because this is a regional problem.
Why are we doing what we're doing?	To address the opioid crisis, and the lack of access to evidence-based treatment for OUD in PC
How will we know we're successful?	• An increase in active MAT prescribing in PC • Shared understanding/community standards for provision of MAT in PC; provider teams feel set up for success • Increase in utilization of buprenorphine products; enhanced member outcomes; improved coordination of services

Wheelhouse Road Map

2017-2020



Learning Collaboratives Objectives:

- **Tools to implement change**: clinic culture, policies, workflow, reduce bias and become trauma informed
- Deepen your understanding of **team based care** and role optimization
- Ability to **use data and electronic tools to drive improvements**
- Structure to **increase the number of patients served per DATA-waivered prescriber** through team-based culture and practice

Learning Collaborative Topics:

#1: Foundations for best practices, team based care, using data

#2: Trauma Informed Care and Substance Use Disorder

- **Approaches for patient segmentation, risk tolerance and other substance use**
- **Inductions- office, home**
- **Implementation check-list, workflows, templating patient care**
- **Focused populations, including: Pregnancy, Intersection of pain/OUD/buprenorphine, culturally sensitive services**

#3: Real Examples from Integrated Primary Care teams

- **Referral pathways to BHC and peers**
- **Opioids and the Brain**
- **DEA and 42 CFR**
- **Modeling difficult conversations**
- **Trauma informed inductions**

#4: MAT Care across settings

- **Specialty behavioral health**
- **Corrections**
- **Transitions**
- **Inpatient, Emergency Room**

Target Technical Assistance

- ❑ On-site needs assessments with standardized tool for interested primary care clinics to assess readiness for implementation of MAT program.

- ❑ Encourage the use of available data to inform patient care and clinical best practice.

- ❑ Support clinics in operationalizing MAT program.
  - ✓ Staffing models and workflow
  - ✓ Workflows,
  - ✓ Electronics health record tools
  - ✓ Screening for opiate use disorder/dependence.

- ❑ Assist clinics in developing partnership with specialty behavioral health for referral and coordination of shared patients, to include induction when not feasible in Primary Care.

DATA Driven Improvement: Health Share MAT DASHBOARD

Health Share MAT Initiation and Engagement Rates

Data is from 3/29/2018 to 3/28/2019

Plan Partner	Clinic Assignment	Number of members with OUD diagnosis
(All)	(All)	9,921

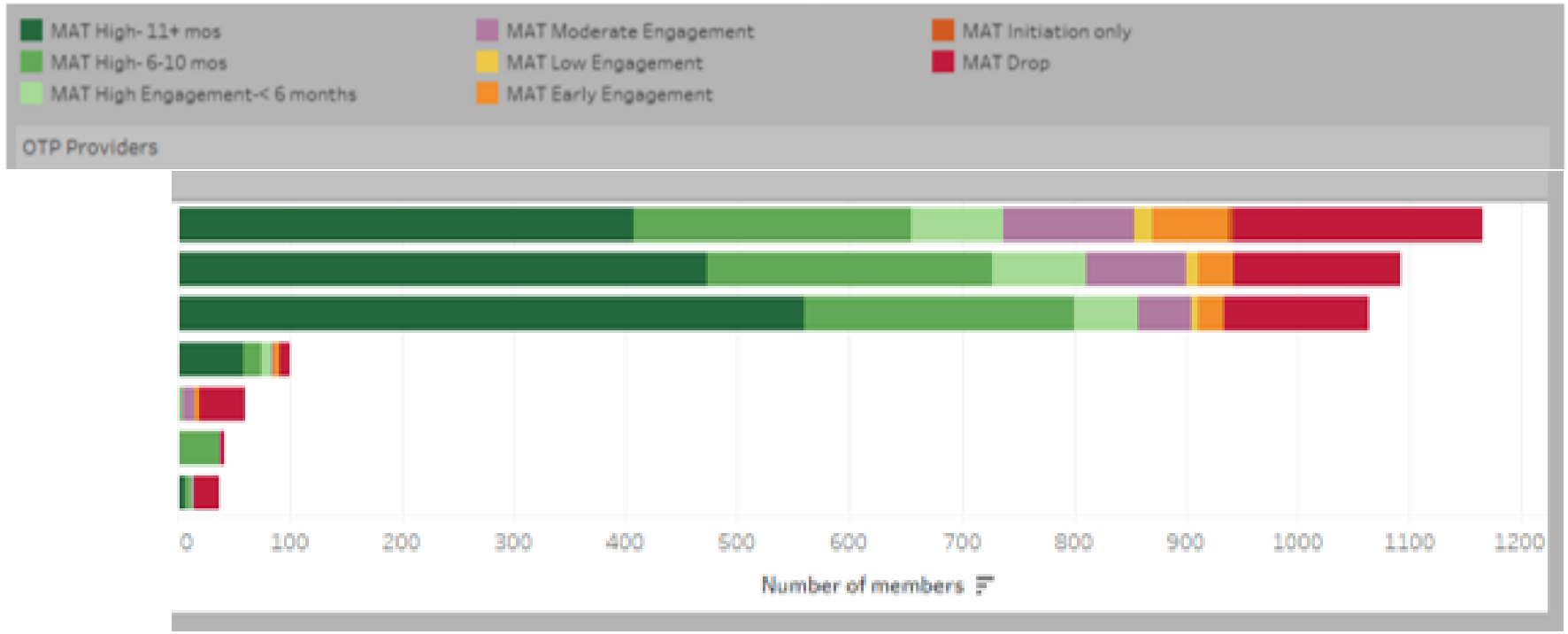
MAT Initiation	5,727	57.7%
No treatment	3,044	30.7%
SUDs Treatment without MAT	1,150	11.6%
MAT High Engagement	3,705	37.3%

Current MAT Engagement Levels among members who receive MAT services

MAT Drop	1,074	18.8%
MAT Initiation only	149	2.6%
MAT Early Engagement	281	4.9%
MAT Low Engagement	56	1.0%
MAT Moderate Engagement	458	8.0%
MAT High Engagement-< 6 months	566	9.9%
MAT High- 6-10 mos	1,144	20.0%
MAT High- 11+ mos	1,981	34.7%

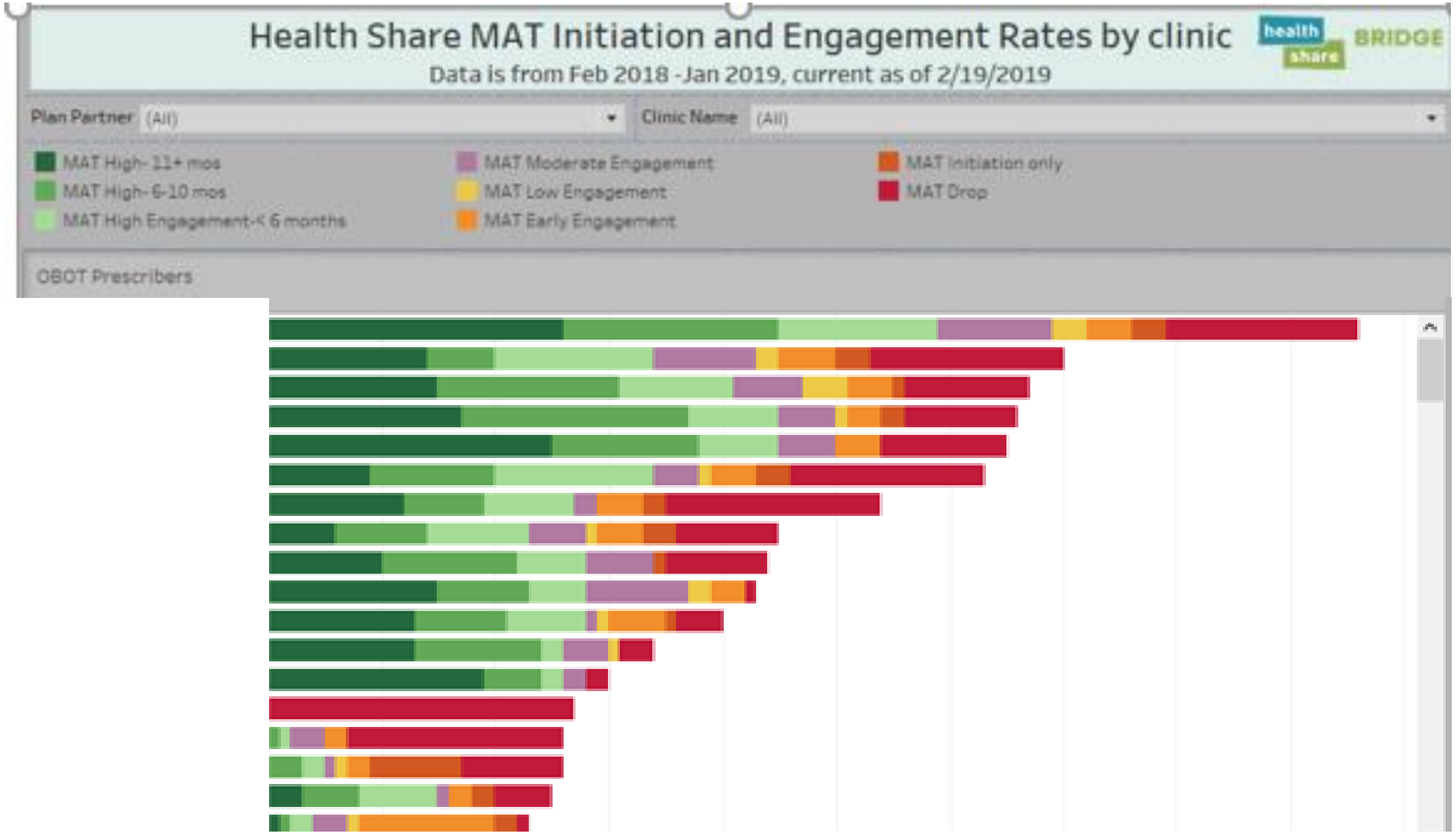
MAT services by payer

Health Share MAT DASHBOARD



- Page one has OTP providers
- Color indicates levels of MAT engagement

Health Share MAT DASHBOARD



Page two has OBOT prescribers

health share

Next steps: Payment and Financial Support

Capacity Building Grant- to support implementation of Medication

Payment model- In development to support prescribing within Primary Care and specialty settings

Next up!

- Continue Targeted Trainings:
  - Trauma Informed Care for Substance Use
  - Behavioral Health Core Competencies-specialty and integrated
  - DATA waiver training- November in JCC and CPCCO
- Continue to align best practices across services settings
  - Intentionally develop patient pathways
- Continue to partner and collaborate with SUD leaders

THANK YOU!